

# Duke's Handbook of MEDICINAL PLANTS OF LATIN AMERICA



James A. Duke

with

Mary Jo Bogenschutz-Godwin

Andrea R. Ottesen

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# Senior Author's Introduction

Little did I know when my graduate professor, Dr. C. Ritchie Bell, took me to Mexico, Guatemala, and Costa Rica in 1959, that this would be the first of dozens of trips to Latin America. I was a straight taxonomist then (someone who assigns plants their correct names and classification), and we were collecting voucher specimens for Dr. Bell's cytological studies. We'd flatten out and dry several of the plants after Bell had pickled their chromosomes in pickling fluid. Once home he'd count their chromosomes. That's cytology or cytotaxonomy. I never got into that.

I had taken all three degrees, A.B., M.A., and Ph.D. (course work, at least), inbred as they now call it, at the same University of North Carolina (UNC). Here I was, on the threshold of a postdoctorate program, to compensate for my inbreeding at good old Chapel Hill. (Some 50 years later they elected me a distinguished alumnus.) Before I knew the word postdoc, I was one! After this 2- to 3-month tour of Mexico and Central America, Dr. Bell dropped me off at the Missouri Botanical Garden (MBG), to begin my postdoc under the tutelage of Dr. R. E. Woodson. Dr. Woodson, in addition to giving me a more cosmopolitan look at classical taxonomy, had me working on his *Flora of Panama*, which was pretty much straight taxonomy, but as I worked through the marvelous collections at the MBG, I was intrigued by comments about the medicinal uses of the specimens as written on the labels. (That was Strike 1.) Dr. Woodson, supported by a pharmaceutical grant, was actively looking for medicinal plants of Peru, focusing his interest on the Apocynaceae. One of many other interesting assignments he gave me was to identify herbarium specimens collected by Felix Woytkowski in Peru. (That was Strike 2.) Early in the 1960s, while still on the MBG staff, I was invited to join an expedition called the Swamp Fox Expedition in Panama. (That was the overwhelming Strike 3, in my conversion to ethnobotany.) Here Jim Duke was striking out as a pure taxonomist and beginning a tendency, irreversibly forwarded, by subsequent trips to Panama, to become an "impure" botanist, before I knew the word ethnobotanist. I loved what I saw in the forests of Panama on my first trip to the so-called Darien Gap, the gap or void, in the Inter-American highway. Later, when I was a resident in Panama, my conversion to ethnobotanist was complete.

How well I remember those first trips to Panama, enchanted, enthralled, entrapped, coining myself a "Panamaniac." After studying the two-dimensional pressed herbarium flora at MBG, I at first needed to flatten those beautiful three-dimensional plants before I could recognize a few of them. I ended up collecting about 18,000 such flattened herbarium specimens, many of which still reside at MBG. Like many temperate-zone taxonomists, I was overwhelmed by my first real look at the tropical flora, nearly 50 years ago, and even today, in 2008, after two pleasant trips to Costa Rica and another to Peru, I am still overwhelmed. Down there I look for the things I know, maybe 1% of the flora, and I can still talk my students to death with that 1%. Back home I look for the things I don't know.

I was fortunate indeed to work with a team in Darien, Panama, headed by great American forester Dr. Les Holdridge, who helped me learn some of the trees, the towering giants of the tropical forests. Gradually the Americans thinned out, leaving me the solitary gringo, charged to climb and collect on Cerro Pirre, a mountain in Darien, Panama. I had a good guide, Afro-American Narciso Bristan, very experienced in the forest. He and his associates hired some Choco Indians as bearers and we went up Cerro Pirre (which I now call Magic Mountain because of the enchanting Elfin Forest at ca. 5,000 feet). I climbed the mountain with the African Americans and the Native Americans and a soggy pocket dictionary in my pocket, forced to communicate only in Spanish. I came down the mountain, an entrenched "Panamaniac," speaking bush Spanish with a black accent. Then there were several Choco Indian confidants, e.g., Loro, who taught me Indian ethnobotanicals by

their Choco names, “almirajó,” “borojó,” “cangrejó,” “mamejé,” etc. In an 8-year period, including an aggregate of 3 years’ residence in Panama, by sending herbarium specimens to specialists all over the world, I constructed my *Isthmian Ethnobotanical Dictionary*, equating the local names of Panama plants with their scientific names, and some of the ethnobotanical lore recorded about these species.

It was much quicker constructing my *Amazon Ethnobotanical Dictionary* because Rodolfo Vazquez, an able student of the late Al Gentry, had been doing for years there in Loreto, Peru, what I had been doing in Darien, Panama. He, too, had been collecting the local plants, writing down the local names and uses. Then he would match the specimens up with named material at MBG and collate the information. Whether in forests or gardens of Panama or Peru, newcomers will find ethnobotanical dictionaries useful when they have reliable guides. As ethnobotanist Mark Plotkin reminds us, when a shaman dies, it’s like a library burning down. The shamans, with their knowledge and their medicinal species, are disappearing. I for one encourage publishing this shamanic input, this intellectual property, believing that medicinal plants, like blueberries, cassava, chocolate, coffee, corn, sunflowers, and home-grown tomatoes, are evolutionary products of the world, not of any particular ethnic groups. I do, however, think that locals and shamans are more entitled to patent and sell their local products than foreigners.

As in North America, some new generation Native South Americans are getting back to their roots. This old gringo, Jim Duke, has taught young Micmac Indians about Micmac medicinal plants, at least as published. And, occasionally, I see the Native American children appreciating the admiration their parents are receiving from the ecotourists as they share local tradition and “intellectual property.” Perhaps they realize that by learning and carrying on the traditions, they can supplement their hard-earned money better than by planting corn and beans or by joining other youth in the ghettos of the asphalt jungles.

While Panama was my first major calling, Peru has dominated my Latino perambulations of late. In 1991, as an ethnobotanical instructor, I participated in my first ecotour. At Explorama Lodge, 3 hours downstream by fast boat from Iquitos, Peru, I taught forest product workshops, ably assisted by several good Native American guides, e.g., Don Segundo Inuma. At the workshop, several interested people got a close look at many of the plants upon which Amazonians depend so heavily, first in the thatched classroom, then out in the field. (During one workshop, one participant was even nipped by a tapir, which also threatened the instructor.) Explorama Lodge is an amazingly comfortable facility nestled in a 250,000-acre rainforest preserve, in an area with 300 woody species per hectare. Good forest guides know the Amazonian names and uses of many plants. Generally, they are pleased to share this information with interested visitors. They don’t often know the universal Latin scientific names of the plants but you can find those, via the common names, in the various ethnobotanical dictionaries and compilations (DAV; EGG; IED; JFM; RAR). More than 50 ecotouristic weeks later in Peru, I finally had my whole gene pool cruising on or swimming in the Amazon. Mrs. Duke and I took all our children and grandchildren for a week, turning the Old Year of 2005 into 2006. And yes, there are Native American genes in my gene pool.

After the Amerindians discovered America, perhaps 12, maybe 50, millennia before Columbus, all their clothing, food, medicine, and shelter — those essential things we call “minor” forest products today — were derived from the forests. Those millennia gave the Indians time to discover and learn empirically the virtues and vices of the thousands of edible and medicinal species in the neotropical forests (DAV).

Quinine is one of the more amazing stories in Latin America’s pharmacopoeia. The quinine tree, like the coca bush, each with more than a dozen alkaloids, was here with the Indians, long before Columbus, and then smallpox and malaria. The history of the continent might have been different had quinine cured smallpox. Instead, smallpox decimated the Indians, killing millions, before malaria arrived, perhaps from Africa. The malaria organism was all but controlled by early efforts with quinine. Gradually, the malaria organism developed a tolerance for quinine, and we switched to chloroquine and other synthetics and semisynthetics. Gradually the plasmodium developed a

tolerance for these as well. WHO-sponsored studies on “qing hao” (*Artemisia annua*) and its derivatives, provided the answer, albeit perhaps equally temporary, to chloroquine-resistant malaria. I predicted that, if natural artemisinin or its semisynthetic derivatives proved out for chloroquine-resistant malaria, the malaria organism would evolve resistance to the pure “qing hao” compounds. We would then be faced with artemisinin-resistant malaria, and go back to Father Nature’s “Pharmacy,” hat in hand, seeking a drug for artemisinin-resistant malaria. This semicircular fable should impress upon us the importance of the forest and biodiversity. If we lose half our species, we halve our odds for finding the new drug. Worse! The species most likely to be lost are those least likely to have been studied. New strains of many of our older diseases, such as measles and tuberculosis, keep cropping up, requiring new medicines.

Bill Gates has major initiatives trying to help Africa with four major killers: HIV, *Leishmania*, malaria, and tuberculosis. There’s a better chance he’ll find answers in Latin America, for two reasons. There are more plant species in Latin America, and the flora has been less intensively investigated for medicinal potential.

Some estimate that less than 1% of the forest species of Latin America have been chemically investigated. Speaking of the world at large, Fabricant and Farnsworth (2001) note that the number of higher plant species (angiosperms and gymnosperms) is estimated at 250,000 (lower estimate ca. 215,000, upper level as high as 500,000). Of these only about 6% have been screened for biologic activity, and a reported 15% have been evaluated phytochemically. I don’t think these high figures would apply in Latin America. They identified 122 compounds of defined structure, obtained from only 94 species of plants, that are used globally as drugs and demonstrated that 80% of these have had an ethnomedical use identical or related to the current use of the active elements of the plant. I translate this to mean that 80% of these folk medicines now have a scientific rationale. Does that mean that all folklore will have as good a batting average? Not necessarily! But it seems the more we dig, the more phytochemical rationales we find behind the folklore. “It was estimated that in 1991 in the United States, for every 10,000 pure compounds (most likely those based on synthesis) that are biologically evaluated (primarily *in vitro*), 20 would be tested in animal models, and 10 of these would be clinically evaluated, and only one would reach U.S. Food and Drug Administration approval for marketing. The time required for this process was estimated at 10 years at a cost of \$231 million (U.S.)... ”

Now that cost has soared to ~\$3.4 billion.

We didn’t even know AIDS four decades ago, but there are many promising anti-HIV leads in our Latin American forests. *Abrus* contains glycyrrhizin, *Acacia* contains gallic-acid and quercetin, *Alexa* contains castanospermine, *Annona* contains procyanidins, *Artocarpus* contains betulinic-acid, *Capsicum* contains caffeic-acid, *Chenopodium* contains ascaridole and oleanolic acid; even *Cinchona* contains epicatechin, *Curcuma* contains curcumin, *Drimys* contains lignin, *Erythroxylum* contains geraniin, *Euphorbia* contains betulin and tannic-acid, *Gossypium* contains gossypol, *Haematoxylum* contains myricetin, *Ilex* contains ursolic-acid, *Lycopersicon* contains naringenin, *Momordica* contains momordicin, *Opuntia* contains luteolin, *Phytolacca* contains phytolaccin, *Plumeria* contains fulvoplumierin, *Psidium* contains ellagic-acid, *Pteridium* contains chicoric-acid and tilirioside, *Punica* contains ellagitannin, *Ricinus* contains ricin, and *Tagetes* contains quercetagenin, to name a few anti-HIV phytochemicals occurring in native or introduced Latin American species. Some of these may help treat HIV. Among the thousands of species that have not been analyzed are thousands of unknown chemicals, many evolved to protect the plants from their own enemies, the plant pathogens. These chemicals may help us in our constant struggle with our constantly evolving pathogens. The lower the phytodiversity, the lower our chances of finding new remedies for the newly evolving scourges of mankind. Preservation of biodiversity is self-preservation.

This book covers roughly 500 of the more important native American medicinal plants in a rather rigid format. But remember these 500 are the better known of some 90,000 species in Latin America. My rigid format means that one can ask a computer which species have the soundest evidence for the Gates’ targets. With a stripped version of this book (giving only indications, activities,

and scores), one can instantaneously search for the best scoring of the 500 herbs for hundreds of ailments and indications. Many of our 500 species scored favorably for the Gates' targets.

## HIV

Some 30–35 of the 500 are already reported to contain compounds that can slow the HIV virus *in vitro*, or *in vivo*. None yet has clinical proof. Peruvians are said to be clinically studying a combo of local herbs, “jergon sachá” (*Dracontium* sp.), “uña de gato” (*Uncaria* sp.) and introduced turmeric (*Curcuma longa*). While not convinced that this will work, I suspect it works as well as the \$18,000-a-year chemical “cocktail” in the U.S.

## LEISHMANIA

About 20 of the 500 were shown to have *in vitro* activity or chemicals with activity against *Leishmania*, and about 20 others had folkloric reputations for *Leishmania*. None has been subjected to rigorous clinical trials. I can't guarantee that I don't have *Leishmania* myself. I've been in some *Leishmania* hot spots in Peru.

## MALARIA

Malaria has been much longer known in Latin America so there is a much wider herbal or pharmacopeial repertoire for malaria. Nearly 60 of our 500 have some evidence in test tubes or in animals. None, to my knowledge, except *Cinchona*, has clinical trials behind it. Some 60 more have only folklore supporting them for malaria. Possibly some of these deserve serious clinical trials. It will usually be cheaper to do such trials in the host countries, rather than exporting the raw materials to the corporate giants.

Following is a Multiple Activities Menu (MAM) routine that anyone could run on my USDA MAM query. Though one can run it for some hundred diseases and thousands of herbs, the following is the bare-boned MAM for *Cinchona* and malaria. In our first battles with malaria, we would have been wiser to have used the whole bark of *Cinchona* with its dozens of bioactive chemicals. That would probably have prevented the drug resistance that evolved so quickly in reaction to the mono-chemically isolated quinine. Note that there are three AntiMDR (MDR = Multiple Drug Resistance; the major enemy of mono-chemical synthetics) phytochemicals that might have, in synergic concert, prevented the resistance that soon developed to quinine alone. Happily the drug companies are resorting to synergies with their synthetic bi-chemical and tri-chemical “cocktails.” I think they'd do better using the whole multi-chemical cocktails like *Cinchona*, which Mother Nature had already provided. But the chemists went on to disprove their “better living through mono-chemistry,” working with just one of the better alkaloids instead of the whole synergic suite.

### MAM. ANTIMALARIAL COMPONENTS OF *CINCHONA OFFICINALIS*

#### AN EVIDENCE-BASED COCKTAIL OF PHYTOCHEMICALS

<http://www.ars-grin.gov/duke/dev/all.html>

Amebicide: 3-alpha,17-beta-cinchophylline; 3-beta,17-beta-cinchophylline; quinidine;  
quinine

Analgesic: quinidine; quinine

Anesthetic: quinine

Antibacterial: quinine

Antibiotic: avicularin

Antidysenteric: quinine

Antiflu: cinchonidine

Antimalarial: cinchonidine; cinchonine; hydroquinidine; quinidine; quinine  
 Antineuralgic: quinine  
 Antipyretic: cinchonidine; cinchonine; quinidine; quinine  
 Antitrypanosomic: quinine  
 Antiviral: cinchonidine  
 Antiyeast: quinine  
 MDR-Inhibitor: cinchonine; quinidine; quinine  
 Protisticide: quinine

[Source: Phytochemical Database, USDA (<http://www.ars-grin.gov/duke>)]

## TUBERCULOSIS

So far, there are some 25 species with *in vitro* or phytochemical activity against tuberculosis, and about as many folkloric species with no substantiating data. None has been cleared clinically for tuberculosis.

How many cures are there for HIV, *Leishmania*, malaria, and/or tuberculosis in the unstudied tens of thousands of species in Latin America? Based on years of compilation, I'll predict that many species in Latin America will have some phytochemicals with some efficacy against all four of Gates' targets.

Sharing folk reputations a/o activities against **HIV** and *Leishmania* is the lizard's tail pepper.

Sharing folk reputations a/o activities against **HIV** and **malaria** are fustic, knobweed, lucky nut, soursop, sweetsop, and tallowwood.

Sharing folk reputations a/o activities against **HIV** and **tuberculosis** are Brazilian peppertree, chaparral, frangipani, and maca.

Sharing folk reputations a/o activities against *Leishmania* and **malaria** are bacopa, calde-rona amarilla, cashew, cocillana, Colombian barberry, contrahierba, diphysa, garlic weed, gualanday, Honduras mahogany, jackass bitters, matico, nipple plant, soul vine, yellow granadilla.

Sharing folk reputations a/o activities against *Leishmania* and **tuberculosis** are bellaco caspi, copaiba, dragon's blood croton, and goldenspoon.

Sharing folk reputations a/o activities against **malaria** and **tuberculosis** are bitterbush, black cherry, Brazilian copal, cacao, capsicum, century plant, coffee senna, cumaseba, heart-leaf-sida, jimson weed, lemon verbena, Mexican white sage, Peruvian basil, Spanish needles, sweet acacia, tamarind, teaweed, tobacco, velvetleaf, West Indian snowberry, and yarrow.

(3) Sharing folk reputations a/o activities against **HIV**, *Leishmania*, and **malaria** are garlic weed, guava, pau d'arco, and purging nut.

Sharing folk reputations a/o activities against **HIV**, **malaria**, and **tuberculosis** are balloon cherry, ecliptha, Indian laburnum, papaya, phyllanthus, pond apple, and pride-of-Barbados.

Sharing folk reputations a/o activities against **HIV**, *Leishmania*, and **tuberculosis** is maria.

Sharing folk reputations a/o activities against *Leishmania*, **malaria**, and **tuberculosis** are epazote, hogplum, ironwood, plantain, and Spanish cedar.

AND Viva Mexico!!! Sharing phytochemical activities against all four of Gates' targets, **HIV**, *Leishmania*, **malaria**, and **tuberculosis**, is the Mexican prickly poppy!!!

Each species of plant shares many phytochemicals with all or most other higher plants, and they share with us all the chemicals necessary to sustain life. But probably all green plant species have some phytochemicals unique to themselves. Each species is a chemical factory full of useful com-

pounds. I've heard it would take all the chemists of the world working thousands of years to come close to creating as many phytochemicals as have already been created evolutionarily by our green friends, the plants we sacrifice so haplessly.

Three quarters of our medicine's made  
By synthetic chemists' escapades,  
But the better quarter still derives  
From Father Nature's quaint archives.

I feel that Father Nature's best  
With his nat'ral treasure chest.  
This feat, by no means, was his dimmest!!!  
He also made synthetic chemists!!!

*anonpoet (Herbalgram, 1988)*

How many unknown phytochemicals await discovery in Latin America, some with the answers to diseases we don't even know yet? As we destroy the forest to feed the overpopulated world on corporational junk food, we lessen our chances for finding these new natural medicines, in general better and safer than the corporational pharmaceuticals, which kill more than 100,000 North Americans in the U.S. each year, even when taken as prescribed in a hospital. To my knowledge, despite concerted efforts to do so, no one has ever documented more than 50 deaths a year in America for our green medicines (unless they were pharmaceutical silver-bullet drugs of abuse, like alcohol, cocaine, and heroin, originally isolated or chemically altered from our good green plants).

Strangely, some 75% of the world's population, too often envy us our modern pharmaceuticals when they can't afford them. Little do they know that for many of the maladies of mankind, the natural green farmacy is healthier, cheaper, and sometimes as efficacious. Until the more promising of these Latin American medicinals are compared clinically with competing pharmaceuticals, no one knows which is better, the natural or the pharmaceutical. I'll usually bet on the natural, with a fairly sound evidence base behind my wagers. In this volume, I hope to have faithfully estimated the safety and efficacy and food farmacy (FNFF = Father Nature's Food Farmacy) potential, so that readers have an idea of the relative efficacy and safety of these important medicinal plants.

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# Author

**James A. “Jim” Duke, Ph.D.**, economic botanist and ethnobotanist, retired after a full career with the United States Department of Agriculture (USDA, Beltsville, Maryland) in 1995. After “retiring,” he served 5 years as senior science adviser with Nature’s Herbs. Although he has been retired more than a decade, the USDA still maintains his Phytochemical Data Base online at <http://www.ars-grin.gov/duke>. He has written more than 30 books dealing with herbs, economic botany, and ethnobotany. For the last 5 years, he has taught Medical Botany as an adjunct professor with the Master of Sciences Program in Herbal Medicine at the Tai Sophia Institute, Laurel, Maryland.

With an aggregate of 6 years in Latin America, Dr. Duke still leads ethnobotanical trips. In 2007 he took one group to the Amazonian rainforest, accompanied by his *Amazonian Ethnobotanical Dictionary*. He led a group to Costa Rica in 2007, accompanied by his *Tico Ethnobotanical Dictionary* (online at the USDA Phytochemical Database an updated version of his *Isthmian Ethnobotanical Dictionary*, first published in 1971). In 2008, for the 16th year, he will lead a week-long field course in ethnobotany in coastal Maine. He often hosts 1-hour to 4-day tours of his own Green Pharmacy Garden, in suburban Maryland, with some 300 medicinal herbs.

A Phi Beta Kappa graduate of the University of North Carolina at Chapel Hill, where he also attained his Ph.D., Dr. Duke was elected a Distinguished Alumnus there 50 years later. He was appointed honorary president of the Herb Society of America for 2007.





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# Bibliographic Abbreviations (books and journals frequently consulted)

- AAB:** Arvigo and Balick (1993)  
**AAH:** Allen and Hatfield (2004)  
**AAS:** *Acta Agriculturae Scandinavica Supplement*  
**ABS:** McDermott (2002)  
**ACM:** Chang et al. (1985)  
**ACT:** *Alternative & Complementary Therapies*  
**ADK:** Kinghorn (2002)  
**ADP:** Dhiman (2006)  
**AEH:** De Smet et al. (1997)  
**AEL:** *Albert Leung's (Chinese) Herb News*, followed by number and page, e.g., AEL31:3.  
**AH2:** McGuffin et al. (2000)  
**AHL:** Liogier (1974)  
**AHP:** McGuffin et al. (1997)  
**AIR:** Airy Shaw (1973)  
**AJC:** *American Journal of Chinese Medicine*  
**AKT:** Tillotson et al. (2001)  
**AMA:** *Alternative Medicine Alert*  
**APA:** Peirce (1999)  
**ARC:** Aloe Research Council — Duke write-up of non-peer reviewed book by Coats and draft by Henry  
**ARG:** Dimitri and Parodi (1980).  
**AT:** *Alternative Therapies in Health and Medicine*  
**ATM:** *Australian Traditional Medicine Society. ATOMS Journal Publ.*  
**AUS:** Austin (2004)  
**AVP:** Arsene (1971)  
**BAZ:** Brako and Zarucchi (1993)  
**BEJ:** Bejar (2001)  
**BGB:** Blumenthal et al. (2000)  
**BIS:** Bisset (1994)  
**BNA:** Balick et al (2000)  
**BO2:** Boik (2001)  
**BOU:** Boulos (1983)  
**BOW:** Bown (2001)  
**BPP:** *Biochemie und Physiologie der Pflanzen*  
**BRU:** Bruneton (1999)  
**BUR:** Jacobs and Burlage (1958)  
**CAN:** Newall et al. (1996)  
**CEB:** Erichsen-Brown (1989)  
**CJE:** Earle (<http://www.botanik.uni-bonn.de/conifers/>)  
**CMR:** *Chemical Marketing Reporter*, a weekly tabloid  
**COX:** Newmark and Schulick (2000)

**CPB:** *Chemical & Pharmaceutical Bulletin*

**CR2:** Duke et al. (2002)

**CRC:** Duke (1985)

**CTD:** Castner et al. (1998)

**DAA:** Duke and Ayensu (1985)

**DAD:** Duke and duCellier (1993)

**DAG:** Dodson and Gentry (1978)

**DAS:** Davies and Stewart (1990)

**DAV:** Duke and Vasquez (1994)

**DAW:** Duke and Wain (1991)

**DEM:** Moerman (1998)

**DEP:** Watt (1889–1892)

**DIA:** Soumyanath (2006)

**DLZ:** De Lucca and Zalles (1992)

**EAS:** Eastman (1992, 1995, 2003)

**EB:** *Economic Botany*

**EFS:** Steinmetz (Cerca 1957)

**EGG:** Egg (1999)

**EMP:** *Economic and Medicinal Plant Research*

**FAC:** Facciola (1998)

**FAD:** Foster and Duke (1990)

**FAH:** Foster and Hobbs (2002)

**FAY:** Foster and Yue (1992)

**FEL:** Felten and Lloyd (1898)

**FNF:** *Father's Nature's Farmacy* on-line database: <http://www.ars-grin.gov/duke/>

**FP3:** Feinbrun-Dothan (1978)

**FT:** *Fitoterapia*

**GAZ:** Skenderi (2003)

**GHA:** Ghazanfar (1994)

**GMH:** Grieve (1931)

**GMJ:** Grenand et al. (1987)

**HAD:** *An Herb a Day* by Jim Duke, many published in *Business of Herbs*, some in *Wild Food Forum*

**HAM:** Hoshizaki and Moran (2001); Hoshizaki, BJ and Moran, RC. 2001. *Fern Grower's Manual*. Timber Press, Portland Ore. 604 pp.

**HC:** Herb Clips (American Botanical Council)

**HDN:** Neuwinger (1996)

**HG:** *HerbalGram*

**HHB:** List and Hohammer (1969–1979)

**HH2:** Hansel et al. (1992, 1993, 1994)

**HH3:** Blaschek et al. (1998, 1998)

**HNI:** Duke (1986)

**HOC:** Tyler (1994)

**HOE:** Duke (1983)

**HOS:** Duke et al. (2002)

**HSM:** Craker & Simon (1986)

**IED:** Duke (1986)

**IHB:** Burkill (1966)

**IJP:** *Indian Journal of Pharmaceutical Sciences*

**JAC:** *The Journal of Alternative and Complementary Medicine*

**JAD:** James A. Duke, personal communication

- JAF:** *Journal of Agricultural and Food Chemistry*  
**JAH:** *Journal of the American Herbalists Guild*  
**JAR:** *The International Journal of Aromatherapy*  
**JBH:** Harborne and Baxter (1983)  
**JE:** *Journal of Ethnopharmacology*  
**JEB:** *Journal of Ethnobotany*  
**JET:** *Journal of Economic and Taxonomic Botany*  
**JFM:** Morton (1977, 1981)  
**JLH:** Hartwell (1982)  
**JMF:** *Journal of Medicinal Food*  
**JN:** *Journal of Nutrition*  
**JNP:** *Journal of Natural Products*  
**JNU:** Joseph et al. (2001)  
**JPP:** *Journal of Pharmacy & Pharmacology*  
**JRM:** *Journal of Reproductive Medicine*  
**JTR:** Roig y Mesa (1945)  
**JUD:** Judd et al. (2002)  
**KAB:** Kirtikar and Basu (Reprint 1975)  
**KAP:** Kapoor (1990)  
**KC2:** Huang (1999)  
**KEB:** Bone (1996)  
**KOM:** Blumenthal et al. (1998)  
**KWD:** Krochmal et al. (1971)  
**L&W:** Little and Wadsworth (1964)  
**LAF:** Leung and Foster (1995)  
**LE2:** Lewis and Elvin-Lewis (2003)  
**LEG:** Duke (1981)  
**LEL:** Lewis and Elvin-Lewis (1977)  
**LIB:** Libster (2002)  
**LMP:** Perry (1980)  
**LOR:** ACEER and Explorama Employees Working Lists of Names in Loreto, Peru, many provided by DAV and RVM, others provided as personal communications by guides in Loreto in Madre de Dios  
**LRN:** *Lawrence Review of Natural Products*, looseleaf; periodically updated.  
**LWW:** Little et al. (1974)  
**LYM:** Buhner (2005)  
**M11:** *Merck Index* 11th Edition  
**M29:** Martindale: *The Extra Pharmacopoeia* (29th edition), The Pharmaceutical Press, London (1989), 1930 pages.  
**M&R:** Mitchell and Rook (1979)  
**MAD:** Madaus (1976)  
**MAR:** Martindale's 28th  
**MAX:** Martinez (1969)  
**MBB:** Vaidya Mana Bajra Bajracharya (Alan Keith Tillotson's Nepalese mentor, as quoted in AKT)  
**MBC:** Martinez et al. (2000)  
**MCK:** McKenna et al. (2002)  
**MD2:** Lacaze and Alexiades (1995)  
**MDD:** ACEER Employees Working Lists of Names in Madre de Dios Common Names, provided to me mostly as personal communications by ACEER employees in Madre de Dios  
**MEZ:** Meza and Pariona (1999)

**MIK:** Castleman (1991)  
**MKK:** Kaul (1997)  
**MPB:** Mors et al. (2000)  
**MPG:** Gupta (1995)  
**MPI:** ICMR (Indian Council of Medical Research) (1976, 1987)  
**MZN:** Martin et al. (1961)  
**NAD:** Nadkarni (1976)  
**NH:** Barbara Grant or Grace Lyn Rich, Nature's Herbs, personal communication  
**NIG:** Nigg and Seigler (1992)  
**NJB:** *Nigerian Journal of Botany*  
**NMH:** Humphrey (2003)  
**NP:** *Natural Pharmacy*  
**NPM:** Manandhar (2002)  
**NR:** *Nutrition Reviews*  
**NWO:** Nwosu (2002)  
**OFF:** Official Sanskrit Names. The Ayurvedic Formulary of India, Part I  
**PAM:** Pizzorno and Murray (1985)  
**PB:** *Pharmaceutical Biology*  
**PC:** *Phytochemistry*  
**PCS:** Standley (1920–1926)  
**PDR:** *Physicians' Desk Reference*  
**PED:** Pedersen (1998)  
**PHM:** *Phytomedicine*  
**PHR:** Fleming et al. (1998)  
**PH2:** Gruenwald et al. (2000)  
**PIO:** Pio Correa (1984)  
**PIP:** Schilcher (1997)  
**PJB:** *Protocol Journal of Botanical Medicine*  
**PM:** *Planta Medica*  
**PMC:** Cardenas (1989)  
**PNC:** Williamson and Evans (1989)  
**POP:** Hostettmann et al. (1995)  
**POR:** Porcher's Australian Nomenclature Database <http://www.plantnames.unimelb.edu.au>  
**PR:** *Phytotherapy Research*  
**PUB:** PMID Pub Med Abstracts <http://www.ncbi.nlm.nih.gov/entrez/query.fcgi>  
**PUM:** Puerto Madryn, tourism website [http://www.madryn.gov.ar/turismo/en/general\\_information/](http://www.madryn.gov.ar/turismo/en/general_information/)  
**RA2:** Taylor (2006) Raintree Nutrition Database <http://www.rain-tree.com/>  
**RAI:** Taylor (2005)  
**RAR:** Rutter (1990)  
**RCP:** *Revista Cubana de Plantas Medicinales*  
**RDF:** *Revista de Fitoterapia*  
**RIN:** Rinzler (1990)  
**ROE:** Roersch (1994)  
**RVM:** Vazquez (1990)  
**RyM:** Roig y Mesa (1928)  
**SAR:** Schultes and Raffauf (1990)  
**SF:** Foster (1996)  
**SHM:** Shaman Pharmaceuticals and handouts pertinent to sangregrado  
**SHT:** Schulz et al. (1998)  
**SKJ:** Jain and deFilipps (1991)  
**SKY:** Lininger et al. (1998)

**SNE137:292:** Jim Duke's personal files

**SOU:** Soukup (1970)

**SPI:** Charalambous (1994)

**SUW:** Suwal (1976)

**SYN:** Challem et al. (2000)

**TAD:** Tucker and Debaggio (2000)

**TAN:** Tanaka (1976)

**TBC:** Croat (1978)

**TGP:** Duke (1997)

**TIB:** Kletter and Kriechbaum (2001)

**TJE:** Elpel (2004)

**TMA:** *Time-Life*, Editors (1996)

**TOM:** Tommy Bass, in Crellin and Philpott (1990)

**TRA:** Germosén-Robineau (Tramil) (1997)

**TTS:** Vozzo (2002)

**ULW:** Coe and Anderson (1999)

**UPH:** Uphof (1968)

**UPW:** Burkill (1985-1995)

**USA:** USDA's Ag Handbook 8 and sequelae

**USN:** USDA Nomenclature Database. <http://www.ars-grin.gov/npgs/tax/taxgenform.html>

**VAD:** Vadmecum García et al. (1998)

**VAG:** Van Wyk and Gericke (2000)

**VOD:** Beauvoir et al. (2001)

**VVG:** Van Wyk et al. (1997)

**WAF:** White et al. (2000)

**WAM:** White and Mavor (1998)

**WBB:** Watt and Breyer-Brandwijk (1962)

**WER:** Werbach (1993)

**WIA:** Wiart (2006)

**WIN:** Kindscher and Hurlburt (1998)

**WOI:** CSIR (1948-1976)

**WO2:** CSIR (1985)

**WO3:** CSIR (2000)

**X as prefix followed by number:** PubMed reference citation (e.g., X123456) searchable at <http://www.ncbi.nlm.nih.gov/sites/entrez?db=PMC>

**YAB:** Yaniv and Bachrach (2005)

**YAR:** Yarnell et al. (2003)

**ZIM:** Gelfand et al. (1985)

**ZOH:** Zohary (1982)

**ZUL:** Hutchings et al. (1996)

**60P:** Desmarchelier and Witting Schaus (2000)



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# Chemical/Medical Abbreviations

Most of the abbreviations relate to chemistry and medicines and dosages, but there are some other miscellaneous abbreviations also used in a similar table in Duke et al., 2002 (CR2).

**ACE:** Angiotensin Converting Enzyme

**AChE:** Antiacetylcholinesterase

**ADD:** Attention Deficit Disorder

**AHPA:** American Herbal Products Association

**AIDs:** Acquired Immunodeficiency Syndrome

**ALA:** Alpha-Linolenic Acid

**AME:** Aqueous Methanol Extract

**APA:** American Pharmaceutical Association

**a/o:** and/or

**ATP:** Adenosine Triphosphate

**BMK:** Baby Mouse Kidney

**BO:** Body Odor

**BPC:** British Pharmacopoeia

**BPH:** Benign Prostatic Hypertrophy

**cAMP:** cyclic Adenosine MonoPhosphate

**Cd:** Cadmium

**CDC:** Centers for Disease Control and Prevention

**cf.:** compare with

**CFS:** Chronic Fatigue Syndrome

**chd:** child

**ckn:** chicken

**cm:** centimeter

**CNS:** Central Nervous System

**COMT:** Catechol-O-Methyl-Transferase

**COPD:** Chronic Obsessive Pulmonary Disorder

**COX:** Cyclooxygenase (sometimes COX-1 or COX-2-Inhibitor)

**Cu:** Copper

**cv:** cultivar

**CVI:** Chronic Venous Insufficiency

**DLA:** Dalton's Lymphoma Ascites

**DPPH:** 1,1-Diphenyl-2-PicrylHydrazyl (assay)

**EAC:** Ehrlich Ascites Carcinoma

**EBV:** Epstein-Barr Virus

**EC50:** half maximal Effective Concentration; refers to the concentration of a drug which induces a response halfway between the baseline and maximum

**ED:** Effective Dose

**ED50:** Effective Dose at which 50% of subjects are "Cured," "Effected," "Affected," or "Altered"

**e.g.:** for example

**EO:** Essential Oil

**EPA:** Eicosapentaenoic Acid

**ERT:** Estrogen Replacement Therapy



**etc.:** et cetera

**f:** Folklore, not yet substantiated (following parentheses in Activities and Indications paragraphs)

**FDA:** Food and Drug Administration

**fr:** fruit

**frg:** frog

**fig:** figure

**FRAP:** Ferric-Reducing Antioxidant Power

**g:** gram

**GABA:** Gamma-Aminobutyric Acid A

**gal:** gallon

**GERD:** Gastro-Esophageal Reflux Disease

**GFG:** Green Farmacy Garden

**GI:** Gastro-Intestinal

**GLA:** Gamma-Linolenic Acid

**GMO:** Genetically Modified Organism

**gpg:** guinea pig

**gr:** grain

**GRAS:** Generally Recognized As Safe

**H<sub>2</sub>O<sub>2</sub>:** hydrogen peroxide

**HBP:** High Blood Pressure

**HCA:** Hydroxycitric Acid

**HCN:** Hydrocyanic Acid

**HIV:** Human Immunodeficiency Virus

**HL:** Human Leukaemia

**hmn:** human

**HP:** *Helicobacter pylori*

**HPS:** HepatoPulmonary Syndrome

**HSV:** Herpes Simplex Virus

**IBD:** Inflammatory Bowel Disease

**IBS:** Irritable Bowel Syndrome

**IC:** Inhibitory Concentration

**igs:** intagastric

**ihl:** inhalation

**IKKbeta:** IkappaB-kinase-beta

**IL:** Interleukin

**ims:** intramuscular

**inf:** infusion

**iNOS:** inducible Nitric Oxide Synthase

**ipr:** intraperitoneal

**ith:** intrathecal

**ITP:** Immune (Idiopathic) Thrombocytopenia Purpura

**ivn:** intravenous

**l:** liter

**LC:** Lethal Concentration

**LC50:** Lethal Concentration at which 50% of experimental population is killed

**LD50:** Lethal Dose at which 50% of experimental population is killed

**LDlo:** Lowest reported lethal dose

**lf:** leaf

**MAOI:** Monoamine Oxidase Inhibitor

**MBC:** Minimum Bactericidal Concentration

**MDR:** Multi Drug Resistant

**mg:** milligram

**MIC:** Depending on source can mean Minimum Inhibiting Concentration or Mean Inhibiting Concentration

**mky:** monkey

**ml:** milliliter

**MLD:** has been used by different sources differently; Merck = Minimum Lethal Dose; some other sources = Mean Lethal Dose, and some don't define it (with apologies to the reader from the compiler)

**mM:** millimole

**MMP:** Matrix Metalloproteinase

**MRSA:** Methicillin-Resistant *Staphylococcus aureus*

**MS:** Multiple Sclerosis

**MUFA:** Monounsaturated Fatty Acid

**mus:** mouse

**NADH:** Nicotine Adenine Dinucleotide

**NCI:** National Cancer Institute

**NF-Kappa-B:** Nuclear Factor Kappa-B

**NF-AT:** Nuclear Factor of Activated T cells

**NH3:** Ammonia

**NIDDM:** Non Insulin Dependent Diabetes Melitus

**NKC:** Natural Killer Cell

**NO:** Nitric Oxide

**Nscn:** No standardized common name

**Ocn:** Other common name often in use in the U.S., but not standardized; after AH2

**ODC:** Ornithine-DeCarboxylase

**OPC:** Oligomeric Procyanidin

**ORAC:** Oxygen Radical Absorbance Capacity

**orl:** oral

**OTC:** Over The Counter

**oz:** ounce

**p:** page

**PAF:** Platelet Aggregating Factor

**par:** parenteral

**PDR:** *Physicians' Desk Reference*

**pers. comm:** personal communication

**PGE:** Prostaglandin E synthase

**PGE2:** ProstaGlandin E2

**pgn:** pigeon

**PKA:** Protein Kinase A

**PKC:** Protein Kinase C

**pl:** plate

**PMS:** Premenstrual Syndrome

**pp.:** pages

**ppm:** parts per million

**PSA:** Prostate Specific Antigen

**pt:** pint

**PTK:** Protein Tyrosine Kinase

**PTD:** Potentially Toxic Dose

**PUFA:** Polyunsaturated Fatty Acid

**qt:** quart

**rbt:** rabbit

**RDA:** Recommended Dietary Allowances  
**RSV:** Respiratory Syncytial Virus  
**RT:** Reverse Transcriptase  
**RTI:** Reverse Transcriptase Inhibitor  
**Scn.:** Standardized common name in the United States herbal trade, after AH2  
**scu:** subcutaneous  
**SI:** Selectivity Index  
**SL:** Sesquiterpene Lactones  
**SLE:** Systemic Lupus Erythematosus  
**SOD:** Superoxide Dismutase  
**SSRI:** Selective Serotonin Reuptake Inhibitor  
**sup:** suppository  
**StX:** Standardized Extract  
**Syn:** Synonym  
**tbsp:** tablespoon  
**TEAC:** Trolox Equivalent Antioxidant Capacity  
**TI:** Therapeutic Index  
**TNF:** Tumor Necrosis Factor  
**TPA:** 12-O-tetradecanoylphorbol-13-acetate  
**tsp:** teaspoon  
**µg:** microgram  
**µl:** microliter  
**µM:** micromol  
**unk:** unknown  
**uns:** unspecified  
**USDA:** United States Department of Agriculture  
**UTIs:** Urinary Tract Infection  
**UV:** Ultra Violet  
**VD:** Venereal Disease  
**VEGF:** Vascular Endothelial Growth Factor  
**viz.:** videlicet  
**Vol.:** Volume  
**wmn:** woman  
**X:** solitary X in the title line of the herb following the scientific name means don't take it without advice from an expert; think of it as a skull and crossbones  
**X followed by serial number:** PMID (PubMed ID number); searchable at <http://www.ncbi.nlm.nih.gov/sites/entrez?db=PMC>  
**ZMB:** Zero Moisture Basis  
**Zn:** Zinc

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# Geographic/Linguistic Abbreviations

To avoid confusion, I use the mix of upper- and lowercase letters to designate geographic localities or ethnicities or languages (almost exclusively in the Common Names section of this book), reserving words or abbreviations in ALL CAPS to designate the bibliographic source of the common name.

**Afg.:** Afghanistan  
**Ai.:** Amerindian  
**Alg.:** Algeria  
**Ap.:** Andhra Pradesh  
**Arab.:** Arabian; Arabic  
**Arg.:** Argentina  
**Arm.:** Armenia  
**Aym.:** Aymara  
**Ayu.:** Ayurvedic  
**Bah.:** Bahama(s)  
**Bal.:** Baluchistan  
**Bali:** Bali  
**Bar.:** Barbados  
**Bas.:** Basque  
**Bel.:** Belize  
**Ben.:** Bengal or Bengali  
**Ber.:** Berber  
**Bf.:** Burkina Faso (formerly Upper Volta)  
**Bib.:** Biblical  
**Bol.:** Bolivia  
**Bom.:** Bombay  
**Br. Guy.:** British Guyana  
**Bul.:** Bulgaria  
**Ca.:** Central America  
**Cam.:** Cambodia  
**Car.:** Caribbean  
**Cat.:** Catalan  
**Che.:** Chechenya; Chechnya; Tschechnya  
**Col.:** Colombia  
**Cr.:** Costa Rica  
**Cze.:** Czech Republic (former Czechoslovakia)  
**Dec.:** Deccan  
**Dei.:** Dutch East Indies  
**Den.:** Denmark; Danish  
**Dho.:** Dhofar; Dhofari  
**Dom.:** Dominica  
**Dr.:** Dominican Republic  
**Dwi.:** Dutch West Indies  
**Ecu.:** Ecuador

**Eng.:** English  
**Eth.:** Ethiopia  
**Fin.:** Finland  
**Fla.:** Florida  
**Fr.:** French  
**Fr. Guy.:** French Guyana  
**Fwi.:** French West Indies  
**Ger.:** German  
**Gond.:** Gondhi; Gondi  
**Gren.:** Grenada  
**Guad.:** Guadelupe  
**Guat.:** Guatemala  
**Gui.:** Guinea  
**Gui. Bissau:** Guinea Bissau  
**Guj.:** Gujarati; Gujerati  
**Guy.:** Guyana  
**Haw.:** Hawaii  
**Heb.:** Hebrew  
**Him.:** Himalaya  
**His.:** Hispaniola  
**Hon.:** Honduras  
**Hun.:** Hungary  
**Ic.:** Indochina  
**Ilo.:** Ilocano  
**Ire.:** Ireland  
**Isr.:** Israel  
**It.:** Italian  
**Ivo.:** Ivory Coast  
**Jam.:** Jamaica  
**Kan.:** Kannada [aka Kannarese (India), Cannarese, and Kanarese, Kanarito]  
**Kar.:** Karnataka  
**Kas.:** Kashmir  
**Ker.:** Kerala  
**Kol.:** Kolami  
**Kon.:** Konkani  
**Kum.:** Kumaon  
**Lad.:** Ladakh  
**Lan.:** Languedoc  
**Leb.:** Lebanon  
**Lor.:** Loreto  
**Ma.:** Middle America  
**Mad.:** Madeira  
**Mah.:** Maharashtra  
**Mal.:** Malayalam (India)  
**Mar.:** Marathi  
**Mart.:** Martinique  
**Mdd.:** Madre de Dios (Peru)  
**Mex.:** Mexico  
**Mp.:** Madhya Pradesh  
**Mun.:** Mundari (India)  
**Na.:** North America

**New Cal.:** New Caledonia  
**Nic.:** Nicaragua  
**Nig.:** Nigeria  
**Nor.:** Norway  
**Nscn.:** No standardized common name (AH2)  
**Nwp.:** Northwest Provinces (Afghan/Pakistan Border)  
**Nz.:** New Zealand  
**Ocn.:** Other common name often in use in the U.S., but not standardized; after AH2  
**Pak.:** Pakistan  
**Pam.:** Pampangan  
**Pan.:** Panama  
**Par.:** Paraguay  
**Pi.:** Philippines; Philippine Islands  
**Pin.:** Pinyin  
**Pol.:** Poland  
**Por.:** Portugal  
**Pr.:** Puerto Rico  
**Pun.:** Punjab (India)  
**Que.:** Quechua  
**Raj.:** Rajasthan  
**Rom.:** Romania  
**Rus.:** Russia  
**Sa.:** South America; Latin America  
**S. Afr.:** South Africa  
**Sal.:** El Salvador  
**San.:** Santal or Santali  
**Scn.:** Standardized common name in the United States herbal trade, after AH2  
**Sen.:** Senegal  
**Sin.:** Sindhi, Sinhalese  
**Slav.:** Slavic  
**Sp.:** Spanish  
**Sri.:** Sri Lanka  
**St. Bart.:** St. Barthelemy  
**Sur.:** Surinam  
**Swe.:** Sweden  
**Tag.:** Tagalog  
**Tam.:** Tamil; Tamil Nadu (India)  
**Tel.:** Telugu; Telegu; Telgu  
**Tex.:** Texas  
**Trin.:** Trinidad  
**Tur.:** Turkey  
**Uk.:** United Kingdom  
**Up.:** Uttar Pradesh  
**Uru.:** Uruguay  
**Usa.:** United States  
**Ven.:** Venezuela  
**Vi.:** Virgin Islands  
**Vis.:** Visayan  
**Vn.:** Vietnam  
**Wi.:** West Indies



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# Format of This Book

It is only natural that a believer in evolution would have an evolving format. The current format has evolved from my *CRC Handbook of Medicinal Herbs*, Second Edition, which had evolved from my public domain Father Nature's Pharmacy, online at the USDA. There are some new features here.

**LEAD LINE:** My lead line for each species is still pretty much the same. Common name (*Scientific name* Author) followed by an X, a +, ++, or +++ representing the rather subjective safety scores, as in the past:

- X: don't take it
- +: OK, but probably not as safe as coffee
- ++: OK, and probably as safe as coffee
- +++ : OK, and probably safer than coffee

Next is the taxonomic family to which the species belongs. Family names are always in capital letters and end in "ACEAE."

Like allopaths, health announcers, and reporters, I reserve the right to change my mind as new information comes in, positive or negative. I assembled this information, based on the published literature, no prescription implied or intended.

## **ILLUSTRATIONS:**

Here I list illustrations from other sources, p (page), pl (plate), or fig (figure), along with the three-letter abbreviated reference.

## **SYNONYMS:**

The next line may list some outdated synonyms, scientific names which at some time in the past have been applied also to this species.

## **NOTES:**

Comments on points of interest or information relating to the species and information gathered thereon. Some natural history may be included here also.

## **COMMON NAMES:**

Here I have compiled many, by no means all, common names, often flagged as to language or country of origin. First comes a name in alphabetical order with a parenthetical citation of the country and or language name or abbreviation. The country/language names/abbreviations always have the initial letter capitalized, with subsequent letters in lowercase. These are followed by three-letter reference abbreviation(s) (all capital letters) of the source(s), sometimes supplemented by journal citations or PubMed abstracts preceded by an X (searchable at <http://www.ncbi.nlm.nih.gov/sites/entrez?db=PMC>), to tell readers where I found these names. Sometimes one of my references, most frequently KAB, will list more than a hundred common names, from various parts of India and elsewhere, including dozens of Sanskrit names. In some such cases I took at least one name from



that source from each country or language. Few users will want to study all of these common names, unless it is a country they plan to visit. With an electronic version of the database, they could generate the names pertinent to the country to be visited. Often the name itself will tell something about the plant or its medicinal uses. I have elected to use the standardized common names (Scn.) endorsed by the American Herbal Products Association (AH2) as the pivotal common name in the lead line for the entry. Occasionally, AH2 would offer an optional alternative common name, which I have abbreviated Ocn. (= other common name). Where there was no standardized common name, I often use the abbreviation Nscn. (= No standardized common name). In such cases I have consulted the USDA nomenclaturists and their database, trying to assure that they and I will agree, and this might later influence the American Herbal Products Association should it decide to add some of these to a revised edition of its standardized common name book. With these common names flagged with geographic and linguistic handles, skillful database managers can readily print out mini-medicinal floras for many countries.

### ACTIVITIES:

Following the common name paragraph are the activities reported for the plant, followed by a parenthetical scoring of the level of the efficacy of that activity. I have a subjective four-score evaluation of the efficacy of the activities:

f: strictly folklore

1: some animal, epidemiological, *in vitro*, or phytochemical studies support the efficacy (I actually feel that in many cases f may be better than 1)

2: extracts of plant approved by Commission E, by the TRAMIL Commission, or demonstrated by human clinical trials

and a very rare 3: herb itself clinically proven in human trials

If there is folkloric data (f), and animal or phytochemical support (1), and clinical proof for extracts or the rare clinical proof for the herb itself (3), as occasionally happens, e.g., with garlic, the efficacy score would read f123. Our computer programs can then print out the best scoring herbs for a given activity or indication. These efficacy scores are referenced like the common name, by three-letter abbreviations of my major sources in capital letters, and/or PubMed citation numbers preceded by X (searchable at <http://www.ncbi.nlm.nih.gov/sites/entrez?db=PMC>), and/or occasional short-hand journal citations.

### INDICATIONS:

Following the ACTIVITIES are the INDICATIONS reported for the herb, followed by a parenthetical scoring of the level of the efficacy of that indication. I have the same subjective efficacy scores f: folklore, 1: some supporting animal, epidemiological, *in vitro*, or phytochemical studies; 2: approved by Commission E, or the TRAMIL Commission or proved in human clinical trials for simple herbal extracts, and a very rare 3: herb itself clinically proven in human trials. Combinations of these four scores may appear, especially when many sources have been consulted. Not all sources consulted are cited but I attempt to cite my new source succinctly when the score goes up or down. These scores are referenced by three-letter abbreviations of my major sources, and/or PubMed serial citation numbers preceded by X (searchable at <http://www.ncbi.nlm.nih.gov/sites/entrez?db=PMC>), and/or an occasional short-hand journal citation. Occasionally, trying to reference every activity and indication, I have to resort to bibliographic shorthand, hence, there will be a cryptic journal citation (especially of journals not covered by PubMed), with an abbreviation for the journal, followed by the volume number and the page number, as in my *CRC Handbook of Medicinal Herbs*. Some examples are:

EB12:368: *Economic Botany*, Vol. 12, p. 368.

FT67:215: *Fitoterapia*. Vol. 67, p. 215.

ACT9:251: *Journal Alternative & Complementary Medicine*, Vol. 9, p. 251

## **DOSAGES:**

This entry has evolved significantly since CR2, the *CRC Handbook of Medicinal Herbs* (Second Edition), 2002. First off, I have added a third scoring element for the food pharmacy potential of the plant. FNFF stands for Father Nature's Food Pharmacy. Here's the FNFF scoring pattern:

FNFF: X. I found nothing credible suggesting the plant as food.

FNFF: ?. Very questionable survival food.

FNFF: !. Survival food or little known but locally important; not in U.S. supermarkets.

FNFF: !!. Important food in some parts of world; not in major supermarkets.

FNFF: !!!. Important enough in the world to be in many U.S. supermarkets.

Following the food pharmacy score, there will be dosages from various sources using the same reference citations. Then there will be folkloric bullets suggesting how various countries or ethnic groups report using the plant. With this new FNFF scoring, my computer can rank the herbs for safety, efficacy, and food pharmacy potential. In these litigious days, I feel safer recommending food pharmacy to friends and family. I think food pharmacy should be the first line of attack when a simple new medical problem arises.

## **DOWNSIDES:**

Under this heading I often report contraindications, interactions, and side effects, just as in the *CRC Handbook of Medicinal Herbs* (Second Edition), 2002.

## **EXTRACTS:**

Here I try to include news on chemicals or extracts of the plant that have proven effects.



# A

# A

## MOTELO SANANGO (*Abuta grandifolia* (Mart.) Sandwith) + MENISPERMACEAE



### Illustrations:

fig 6 (DAV)

### Common Names:

Abuta (Peru; Sp.; DAV); Caimitillo (Peru; RAR); Motelo Sanango (Peru; Sp.; DAV); Qaymitu (Que.; DLZ); Sanango (Peru; RAR); Soga (Peru; SOU); Trompetero Sacha (Peru; Sp.; DAV). (Nscn).

### Activities:

Analgesic (f; DAV); Antianemic (f; DAV); Antimalarial (1; X10418326; X16713157); Anti-microbial (1; X17178202; X8850132); Aphrodisiac (f; DAV); Bactericide (1; X8850132); Cardiotonic (f; DAV); Febrifuge (f; DAV); Insecticide (1; X10967471); Larvicide (1; X10967471); Mosquitocide (1; X10967471); Plasmodicide (1; X10418326); Tonic (f; RAR).

### Indications:

Anemia (f; DAV; DLZ; SOU); Bacteria (1; X17178202; X8850132); Cardiopathy (f; DAV); Childbirth (f; DAV); Colic (f; DAV); Conjunctivosis (f; DAV); Debility (f; DAV); Fever (f; DAV); Impotence (f; DAV); Infection (1; X17178202; X8850132); Infertility (f; DAV); Malaria (1; X10418326; X16713157); Metrorrhagia (f; DAV); *Mycobacterium* (1; X8850132); Nervousness (f; DAV); Pain (f; DAV); *Pseudomonas* (1; X8850132); Rheumatism (f; DAV); Snake Bites (f; DAV); Toothache (f; DAV).

### Dosages:

FNFF = ?

### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

Methanol extracts larvicidal to *Aedes aegypti* (LC50 = 2.6 µg/ml) (X10967471). Krukovine antiplasmodial to chloroquine-resistant and chloroquine-sensitive *Plasmodium falciparum* (IC50 = 0.022–0.44 µg/ml) (X10418326). Crude alkaloid extract inhibits 66% of parasite growth for *Plasmodium falciparum* (250 mg/kg/day) (X16713157).

**BULLHORN ACACIA (*Acacia cornigera* (L.) Willd.) ++****MIMOSACEAE****Illustrations:**

p 46 (AAB)

**Synonyms:**

*Acacia spadicigera* Schldl. & Cham.; *Mimosa cornigera* L. (basionym); *Vachellia cornigera* (L.) Seigler & Ebinger; fide (USN).

**Common Names:**

Bullhorn Acacia (Eng.; USN); Cock Spur (Bel.; Eng.; BNA); Cuerno de Vaca (Bel.; Sp.; BNA); Swollen-Thorn Acacia (Eng.; USN); Zubin (Bel.; Maya; BNA). (Nscn).

**Activities:**

Antidote (f; AAB); Aphrodisiac (f; AAB).

**Indications:**

Asthma (f; AAB); Bites (f; PCS); Catarrh (f; AAB); Congestion (f; AAB); Coughs (f; AAB); Headache (f; AAB); Impotence (f; AAB); Pulmonosis (f; AAB); Snake Bites (f; AAB).

**Dosages:**

FNFF = ?

- Belizeans boil 1" × 6" bark strip in 3 cups water for 10 min, taking a cup before meals for 7 days for impotence (AAB).
- Belizeans boil 9 thorns in 3 cups water for 10 min for asthma, congestion, cough, headache, and poisoning (AAB).
- Belizeans decoct 9 black ants from the plant into a half cup boiled water, strain, and take by teaspoonful for infantile catarrh (AAB).
- Belizean snake doctors suggest chewing on a strip of bark after snake bite, swallowing the juices, then applying the remaining fiber as poultice to the bite (AAB).

**SWEET ACACIA (*Acacia farnesiana* (L.) Willd.) ++****FABACEAE****Illustrations:**

fig 4 (IED); pl 374 (KAB)

**Synonyms:**

*Acacia acicularis* Humb. & Bonpl. ex Willd.; *A. densiflora* (Alexander ex Small) Cory; *A. minuta* (M. E. Jones) R. M. Beauch.; *A. pedunculata* Willd.; *A. smallii* Isely; *Mimosa farnesiana* L. (basionym); *Pithecellobium minutum* M. E. Jones; *Poponax farnesiana* (L.) Raf.; *Vachellia densiflora* Alexander ex Small; *V. farnesiana* (L.) Wight & Arn.; fide (EGG; USN).

**Common Names:**

Acacia de Farnése (Fr.; EFS); Acacia Vraie (Fr.; EFS); Akazie (Ger.; KAP); Antillenakazie (Ger.; USN); Arimaedah (Sanskrit; EFS; KAP); Arimdamu (Tel.; KAB); Arimeda (Sanskrit); Aroma (Col.; Cr.; Cuba; Nic.; Peru; Pr.; Sp.; JTR; KAB); Aroma Amarillo (Cuba; JTR); Aromo (Sp.; USN); Bangurdaru (Naguri; KAB); Barangudara (Hasada; KAB); Baver (Shah Bilawul; KAB); Bayahonda (Sp.; USN); Bichi (Mex.; JTR); Bihi (Mex.; Zapotec; AUS); Bimorama (Mex.; JTR); Binorama (Mex.; Tarahumara; Yaqui; AUS); Bois Caca (Fr.; KAB); Bunga Siam (Malaya; EFS); Cachito de Aroma (Nic.; JTR); Casha (Bel.; Eng.; Fla.; Pr.; AUS; JTR); Cassie (Eng.; Ocn.; AH2; CR2; USN); Cassie Ancienne (Fr.; USN); Cassie Jaune (Réunion; KAB); Cënshi (Cashibo; Peru; RAR); Cimarron (Col.; JTR); Coromo (Sp.; USN); Cuji (Ven.; JTR); Cuji Deobabul (Mar.; SKJ); Cuntich (Bel.; Maya; AUS); Cu'uca (Maya; Mex.; AUS); Deobabul (Bom.; Mar.; KAB; SKJ); Echte Acacia (Dutch; EFS); Echte Akazie (Ger.; EFS); Espinillo (Arg.; Bol.; Uru.; DLZ; JTR); Espino (Bol.; Mex.; DLZ; JTR); Espino Blanco (Guat.; Sal.; Sp.; USN); Esponjeiro (Por.; EFS); Finsachi (Mex.; JTR); Flor de Aroma (Bol.; Sp.; DLZ; EGG); Gabia (Mex.; JTR); Gabur (San.; DEP; KAB); Gaggia (It.; KAB; USN); Gand Babul (Hindi; KAP; SKJ); Guacamaya Francesa (Cuba; AUS); Gubabal (Mar.; KAB); Gudoya Boburo (Oriya; KAB); Guibabhul (Mah.; NAD); Guisache (Mex.; JTR); Guisanche Yondiro (Mex.; JTR); Gu Kikar (Dec.; NAD); Guyababula (Ben.; DEP; KAB; NAD); Guyabebula (Ben.; KAP); Huaranga (Peru; Sp.; EGG); Huatango (Peru; Sp.; EGG); Huisache (Eng.; Mex.; Nahuatl; AUS; NPM; USN); Huisache de la Semilla (Mex.; JTR); Jabbaval (Guj.; NAD); Jait (Nepal; NPM); Jali (Kan.; DEP); Jheribaval (Guj.; KAB); Karijali (Kan.; NAD); Kariveclum (Mal.; NAD); Kasturivel (Tam.; SKJ); Kembang Bandara (Malaya; EFS); Keota (China; KAP); Kikar (Hindi; Yunani; KAP; NAD); Kinko (Japan; KAP); Kirijali (Kan.; KAB); Knebawal (Sin.; KAB); Kou Kong (Ic.; KAB); Kuebaval (Sin.; DEP; NAD); Kusri Jhad (Kon.; NAD); Laksana (Malaya; EFS); Lasana (Malaya; KAB); Mutuy (Peru; Sp.; EGG); Nan Lon Kyang (Burma; KAB); Nan Loon Gyaing (Burma; DEP); Nugatumba (Tel.; NAD); Opopanax (Eng.; JTR; USN); Pashaco (Peru; Sp.; EGG); Pelá (Col.; JTR); Pikkaruvil (Tam.; NAD); Piktumi (Tel.; DEP); Pissibabul (Dec.; KAB); Pivel (Tam.; KAB); Pivelam (Mal.; KAB); Popinac (Eng.; USN); Priki Aruvel (Tam.; KAP); Real Acacia (Eng.; EFS); Roma (Tag.; KAB); Santiago (Vis.; KAB); Seenidda (Sin.; KAP); Sponge Tree (Eng.; EFS); Subin (Hon.; AVP); Sweet Acacia (Eng.; Scn.; AH2; USN); Sweet Wattle (Eng.; Ocn.; AH2); Talbaval (Guj.; DEP); Tusca (Sp.; EFS); Ummughilan (Arab.; KAP); Uñz de Cabra (Col.; JTR); Vedda Vala (Tam.; DEP); Vignorama (Mex.; Tarahumara; Yaqui; AUS); Vilayati Babul (Dec.; Hindi; DEP); Vilayati Kikar (Dec.; Hindi; India; DEP; EFS); Vinorama (Mex.; Tarahumara; Yaqui; AUS; JTR); Vita (Sanskrit [1 of 12]; KAB); Ya Zo Shu Pi (Pin.; DAA); Zuhin-Che (Maya; Mex.; AUS).

**Activities:**

Alexiteric (f; KAB); Alterative (f; CRC; KAP); Anthelmintic (f; KAB); Antidote (f; DLZ; EGG); Antiexudative (1; HDN); Antifertility (f1; X8241931); Antiimplantation (f1; X8241931); Anti-inflammatory (1; X3557615; ZUL); Antimalarial (1; X16713157); Antiproliferant (1; HDN); Antiseptic (f; JTR); Antispasmodic (f; CRC); Aphrodisiac (f; CRC; EFS; HDN); Astringent (f; CRC; KAP; WO2); Bactericide (1; X8591768); Bronchodilator (1; X3557615); Candicide (f; JFM); Curare (f; CRC; HDN); Demulcent (f; CRC; MPI); Dentifrice (f; CRC); Emollient (f; JTR); Hypoglycemic (1; ZUL); Hypotensive (1; HDN); Insecticide (f; HDN); Molluscicide (f; HDN); Negative-Inotropic (1; HDN); Pectoral (f; JTR); Plasmodicide (1; X16713157); Stimulant (f; CRC); Stomachic (f; JFM).

**Indications:**

Bacteria (1; X8591768); Bleeding (f; JFM; NAD); Blood (f; KAB); Bronchosis (f; KAB); Cancer (f; HDN; JLH); Cancer, stomach (f; JLH); *Candida* (f; JFM); Carbuncles (f; SKJ);

Cardiopathy (f; JTR); Caries (f; KAB); Cholera (f; SKJ); Conjunctivitis (f1; JFM; JTR); Convulsions (f; SKJ); Dermatitis (f; HDN; JFM); Diabetes (1; ZUL); Diarrhea (f1; CRC; HDN; JFM; JTR); Dysentery (f; JFM); Dyspepsia (f; EGG; JFM); Epilepsy (f; SKJ); Erysipelas (f; KAB); Fever (f; CRC; JFM); Furuncles (1; HDN); Gangrene (f; JTR); Gastrositis (f; EGG; JLH); Gingivitis (f; NAD); Gonorrhoea (f; DEP; WO2); Headache (f; CRC; JFM); Hemorrhoids (f1; JTR); High Blood Pressure (1; HDN); Hyperglycemia (1; ZUL); Impotence (f; KAP); Infection (1; JTR; X8591768); Inflammation (f1; JFM; KAB; ZUL); Itch (f; KAB); Leukoderma (f; KAB); Leukorrhoea (f; CRC; JFM); Lumbago (f; CRC); Malaria (1; X16713157); Mucositis (f; JFM; JTR); Myositis (f; NPM); Neurosis (f; JFM; JTR); Ophthalmia (f; JFM; SKJ); Pain (f; CRC; JFM); Parasites (f; CRC); Proctitis (f; CRC; KAB); Prolapse (f; CRC; KAB); Puerperium (f; CRC); Rabies (f; SKJ); Rheumatism (f; CRC; JFM); Snake Bites (f; KAB); Sores (f; CRC; SKJ); Sore Throat (f; CRC; JFM); Spermatorrhoea (f; DEP; KAP); Stomatitis (f; KAB); Swelling (f; NPM); Tuberculosis (f; JFM; JTR); Typhoid (f; JFM); Ulcers (f; CRC); Uterine Hemorrhage (f; JFM); VD (f; KAP; WO2); Worms (f; KAB); Wounds (f; HDN; JFM).

#### Dosages:

FNFF = ! Leaves used in chutneys; pods roasted and eaten; germinated seeds said to be eaten (FAC; TAN).

- Asian Indians use 1:20 bark decoction with ginger as an astringent tooth-wash for gingivitis (NAD).
- Ayurvedics consider the bark alexiteric and anthelmintic, and use for blood disorders, bronchitis, caries, dermatitis, dysentery, erysipelas, inflammation, itch, and leukoderma (KAB).
- Bolivians suggest the root as antidote to the poisonous seed (DLZ).
- Bolivians use floral tea for dyspepsia, bark decoction for diarrhea (DLZ).
- Cubans use astringent fruit decoction for conjunctivitis, dermatitis, and sore throat (JTR).
- Filipinos use bark decoction for anal prolapse and leukorrhoea (KAB).
- Mexicans in Yucatan use the flowers for nervous disorders (JTR).
- Mexicans use root decoction for tuberculosis (JTR).
- Mexicans use flowers in unguents for headache and tea for indigestion (PCS).
- Nepalese use bark juices for muscular swelling (NPM).
- Peruvians suggest floral infusion for dyspepsia (EGG).
- Peruvians suggest floral and leaf infusion for fever (EGG).

#### Downsides:

Not covered (AHP; KOM; PHR). As of July 2007, the FDA Poisonous Plant Database listed 11 titles alluding to toxicity of this species.

## CANCER HERB (*Acalypha arvensis* Poepp. & Endl.) +

### EUPHORBIACEAE

#### Illustrations:

p 34 (AAB)

#### Synonyms:

*Acalypha capitellata* T. S. Brandeg.; *A. pavoniana* Muell. Arg.; fide (JFM).

#### Common Names:

Cancer Herb (Eng.; CR2); Cordiemento (Bel.; Sp.; BNA; USN); Hierba del Cancer (Sp.; CR2); Kiskita (Ulwa; ULW); Yerba de Cancer (Bel.; Sp.; BNA; USN).

**Activities:**

Antiemetic (f; MPG); Antiinflammatory (f; AAB; MPG); Antiseptic (1; MPG); Antispasmodic (f; MPG); Bactericide (1; TRA); Diuretic (f; MPG); Tonic (f; MPG).

**Indications:**

Allergies (f; MPG); Amebiasis (f; MPG); Athlete's Foot (f; MPG); Bacteria (1; MPG; TRA); Bites (f; JFM; ULW); Blisters (f; AAB); Boils (f; AAB); Cancer (f; AAB; MPG); Constipation (f; MPG); Dermatitis (f; AAB; TRA; ULW); Diarrhea (f; MPG); Dysentery (f; MPG); Dysuria (f; TRA); Emesis (f; MPG); Enterosis (f; MPG); Fungus (f; AAB); Gastrosis (f; AAB); Headache (f; MPG); Infection (f1; AAB; MPG; TRA); Inflammation (f; AAB; MPG; TRA); Itch (f; AAB); Rashes (f; AAB); Ringworm (f; AAB); Snake Bite (f; MPG); Sores (f; AAB; JFM); Spasms (f; MPG); *Staphylococcus* (1; AAB; TRA); Stomachache (f; MPG); Ulcers (f; MPG); UTIs (f; AAB); Vaginitis (f; AAB); VD (f; JFM; MPG).

**Dosages:**

FNFF = ?

- Belizeans apply dry powdered leaves to boils, dermatosis, infections, and sores (AAB).
- Belizeans boil 1 whole plant in 1 qt water 10 min, strain, and use as a wash for blister, infection, inflammation, ringworm, sores, and wounds (AAB).
- Belizeans boil 1 whole plant in 3 cups water 5 min and take 1 cup before each meal for stomach and urinary disorders (AAB).
- Guatemalans use decoction on dermatoses, bugbites, snake bites, and venereal sores (JFM).

**PARAGUAY STARBUR (*Acanthospermum australe* (Loefl.) Kuntze) ++****ASTERACEAE****Synonyms:**

*Acanthospermum brasilum* Schrank; *A. xanthioides* (Kunth) DC.; *Centrospermum xanthioides* Kunth; *Melampodium australe* Loefl. (basionym); fide (USN).

**Common Names:**

Amor de Negro (Brazil; MPB); Carrapicho Rasteiro (Brazil; MPB); Erva Mijona (Brazil; MPB); Erva Mineira (Brazil; MPB); Espinho de Agulha (Brazil; MPB); Espinho de Carneiro (Brazil; MPB); Mata Pasto (Brazil; MPB); Paraguay-Bur (Eng.; USN); Paraguay Starbur (Eng.; Scn.; AH2; USN); Picao da Praia (Brazil; MPB); Poejo da Praia (Brazil; MPB); Sheepbur (Eng.; USN); Tapecue (Par.; MPG).

**Activities:**

Abortifacient (f1; MPG); Aldose-Reductase-Inhibitor (1; MPG); Antifertility (f1; EB31:299; MPG; ZUL); Antimalarial (f1; JE86:143; MPG; X1823001); Antiplasmodial (1; MPG); Bitter (f; MPB); Contraceptive (1; ZUL); Depurative (f; MPG); Diaphoretic (f; MPB); Diuretic (f; MPG); Febrifuge (f1; X18419970); Fungicide (1; X11378288); Stomachic (f; MPG).

**Indications:**

Anemia (f; MPB); Arthrosis (f; MPG); Blenorrhea (f; MPB); Cancer (f; MPG); Dermatitis (f; MPB); Diarrhea (f; MPB); Dysuria (f; MPB); Erysipelas (f; MPB); Fever (f1; X18419970); Foot (f; DAW); Fungus (1; X11378288); Gonorrhoea (f; MPG); Leucorrhoea (f; MPG); Malaria (f1; JE86:143; MPG; X1823001); Mycosis (1; X11378288); Rheumatism (f; MPG); Sores (f; DAW); VD (f; MPG); Wounds (f; MPG).



**Dosages:**

FNFF = ?

- Brazilians use the bitter mucilaginous leaves as antibleorrhagic, antidiarrheal, anti-malarial, diaphoretic, and tonic, for anemia, dysuria, erysipelas, and widely for malaria (MPB; MPG).
- Colombians use plant decoction for cancers and malignant tumors (MPG).
- Paraguayans use decoction orally for arthritis and rheumatism, vaginally for gonorrhea and leucorrhea (MPG).
- Paraguayans use decoction or tea to wash sores, wounds, and cancers (MPG).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**Extracts:**

Extracts inhibited 40–50% multiplication of *P. berghei*; antimalarial *in vitro* to *P. falciparum* (X1823001).

**STARBUR (*Acanthospermum hispidum* DC.) ++****ASTERACEAE****Illustrations:**

p 198 (WBB)

**Synonyms:**

*Acanthospermum humile* var. *hispidum* (DC.) Kuntze

**Notes:**

There seems to be confusion over three species recognized by USN: *A. australe*, *A. hispidum* and *A. humile*. Data in Liogier (1974) suggest that the latter two might be keyed:

Leaves 2–12 cm long, dentate; not scabrous; ray flowers 5–8 . . . . . *A. hispidum*  
 Leaves 2–3 cm long, dentate, serrate, or lobulate; scabrous; ray flowers 5–7. . . *A. humile*

**Common Names:**

Abrojo (Cuba; AVP); Amor de Negro (Brazil; MPB); Awusagbe (Ghana; UPW); Bristly Starbur (Eng.; Scn.; AH2; USN); Cabeça de Boi (Brazil; Por.; USN); Cacharo (Col.; IED); Cachito (Ma.; JFM); Carrapicho (Brazil; Ma.; JFM; MPB); Carrapicho Chifre de Veado (Brazil; Por.; USN); Carrapicho de Carneiro (Brazil; Ma.; Por.; JFM; USN); Corona de la Reina (Sp.; USN); Cram Cram (Ivo.; UPW); Cuagrilla (Sp.; USN); Cuajrilla (Ma.; JFM); Deguru Kúú (Mali; UPW); Dessalines (Haiti; AVP); Donkieklits (Dutch; ZUL); El Trejo (Col.; IED); Ericito Playero (Col.; IED); Espinho de Agulha (Brazil; Por.; USN); Espinho de Cigano (Brazil; Ma.; Por.; JFM; USN); Espuela de Caballo (Col.; IED); Feuilles Hareng (Haiti; AVP); Goat's-Head (Eng.; USN); Herbe Savane (Ma.; JFM); Hierba Federacion (Ma.; JFM); Hierba Meona (Ma.; JFM); Inkuzana (ZUL); Kleinkankeroos (Dutch; ZUL); Mala Mujer (Dor.; AHL); Maroto (Brazil; MPB); Misquito (Gui. Bissau; UPW); Nabati Kalimo (Sen.; UPW); Pacado Mortal (Col.; IED); Rebenta Carneiro (Ma.; JFM); Retirante (Brazil; MPB); Sahiligbin (Sierra Leone; UPW); Starbur (Eng.; Haw.; Scn.; AH2; USN); Star Burr (Ma.; JFM); Sterklits (Dutch; ZUL); Thé Métile (Haiti; AVP); Verdelago (Ma.; JFM); Yaawol (Nig.; UPW); Zamora (Ma.; JFM).

**Activities:**

Abortifacient (f; ZUL); Antidote (f; UPW); Antiherpetic (1; X9330761); Antimalarial (1; X12684889); Antiplasmodial (1; JE86:143; X12684889; X12738078); Antiseptic (1; WO2; ZUL); Antiviral (1; X9330761); Aphrodisiac (f; MPB); Bactericide (1; WO2; X12628407; ZUL); Cyanogenic (1; ZUL); Diuretic (f; DAW; JFM); Febrifuge (f1; JFM; X18419970); Fungicide (1; JE76:93; WO2); Immunostimulant (1; X9717084); Pectoral (f; MPB); Purgative (f; UPW); Sudorific (f; DAW; MPB); Sweetener (1; X2314108); Tonic (f; MPB).

**Indications:**

Arthritis (f; UPW); *Bacillus* (1; ZUL); Bacteria (1; WO2; X12628407; ZUL); Bronchosis (f; MPB); Constipation (f; UPW); *Corynebacterium* (1; ZUL); Coughs (f; MPB); Dermatitis (f1; JE76:93; WO2); Diarrhea (f; MPB); Fever (f1; JFM; X18419970); Fungus (1; JE76:93; WO2); Gastrosis (f; UPW); Gonorrhea (f; JFM); Hepatosis (f; MPB); Herpes (1; X9330761); Impotence (f; MPB); Infection (1; JE76:93; WO2; X12628407; ZUL); Leprosy (f; UPW); Malaria (f1; JE86:143; X12684889; X12738078); Migraine (f; UPW); Mycosis (1; WO2); Rheumatism (f; UPW); *Salmonella* (1; ZUL); *Shigella* (1; ZUL); VD (f; JFM); Viruses (1; X9330761).

**Dosages:**

FNFF = ?

- Brazilians mix leaves with *Boerhaavia hirsuta* as an aphrodisiac (MPB).
- Brazilians take the root for bronchosis, cough, diarrhea, and hepatosis, the leaves as febrifuge, pectoral, sudorific, and tonic (MPB).
- Burkina Fasoans use the plant for malaria (UPW).
- Congolese use sap, uncut or diluted, as nose drops, for gastrosis and migraine, applying powdered leaves to wounds (UPW).
- Dominicans suggest *A. humile* tea orally or topically for arthritis (AHL).
- French West Indians take leaf decoction as antigonorrheal, febrifuge, and diuretic (JFM).
- Ghanaians use leaves to treat leprosy (UPW).
- Ivory Coastals take decoction as antidote and purgative for arthritis and rheumatism (UPW).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed 11 titles alluding to toxicity of this species.

**Extracts:**

Antiplasmodial for *Plasmodium falciparum* chloroquine-resistant W2 strain and D6 chloroquine-sensitive strains (IC<sub>50</sub> = 5.02 µg/ml) (X12684889; X12738078).

**YARROW (*Achillea millefolium* L.) ++****ASTERACEAE****Illustrations:**

pl 536A (KAB)

**Synonyms:**

*Achillea borealis* Bong.; *A. lanulosa* Nutt.; *A. magna* auct.; *A. millefolium* subsp. *borealis* (Bong.) Breitung; *A. millefolium* subsp. *lanulosa* (Nutt.) Piper; *A. millefolium* L. subsp. *millefolium* Hayek; *A. millefolium* var. *occidentale* DC.; *A. subhirsuta* Gilib.; *Millefolium officinale* Gueldenst.; fide (POR; USN).

**Notes:**

Updating this write-up on the first day of a very confining 90-day Lyme disease protocol. I was intrigued to see that antibabesial activity is reported for yarrow tea, which also has many other activities that would support my protocol, e.g., analgesic, antiaging, antidepressant, anti-inflammatory, antiseptic, anxiolytic, bactericide, candidicide, expectorant, hepatoprotective, hypotensive, and ixodifugal.

**Common Names:**

Achillée Mille-Feuille (Fr.; USN); A'djidamo'wano (Ojibwa; AUS); Aivastusjuuri (Fin.; POR); Ajducica (Serbia; POR); Alcanfor (Mex.; AUS; POR); Alhucema (Ca.; AUS); Angerblume (Ger.; KAB); Aquilea Amarillo (Peru; EGG); Aquiléia (Por.; POR); Arkarkhara (Kas.; WO2); Arman (Slovenia; POR); Astaweskotawan (Cree; AUS); Athair Thalmhainn (Gaelic; AUS); Athar Thalmhna (Ire.; KAB); Biramjasif (Cutch; Guj.; KAB; WO2); Biranjasifa (Urdu; KAB); Bloodwort (Eng.; KAB); Božja Haluga (Croatia; POR); Buimaderan (Afg.; Iran; KAB); Carpenter's Grass (Eng.; AAH); Carpenter's Weed (Eng.; POR); Chopandiga (Kas.; WO2); Ciento en Rama (Mex.; POR); Coadá Soarecelului (Rom.; KAB); Cola de Ardilla (Ca.; AUS); Colchon de Pobre (Ma.; JFM); Duizenblaad (Dutch; EFS; KAB); Egérfarkfû (Hun.; POR); Erva dos Carpinteros (Brazil; JFM); Ezer-Levelu-Fu (Hun.; KAB); Fani Hashambish Holba (Choctaw; AUS); Flora de la Pluma (Sp.; AUS); Gandana (Hindi; WO2); Hank-Sintsh (Winnebago; AUS); Haxixa Tal Morliti (Malta; KAB); Herbe à Dindes (Fr.; AUS; POR); Herbe Militaire (Fr.; KAB); Ihiseeyo (Cheyenne; AUS); Kishkatoa'soanûk (Potawatomi; AUS); Krwawnik Pospolity (Pol.; POR); Manzanilla de los Montes (Ma.; JFM); Marfull (Cat.; KAB); Milefolia (Sp.; KAB); Milefólio (Por.; USN); Mil em Rama (Por.; KAB); Milenrama (Peru; Sp.; EGG; USN); Milfoil (Eng.; TAN; USN); Mil Folhas (Brazil; AUS); Mil Hojas (Arg.; POR); Mille-Feuille (Fr.; EFS; USN); Millefogli (It.; KAB); Miskigonimaskigiah (Cree; AUS); Momadru (Kas.; WO2); Momadruchopandiga (Kas.; DEP; KAB; NAD); Myriophyllon (Greek; KAB); Old Man (Eng.; KAB); Om Alf Waraka (Arab.; POR); Pahale Kutch (Him.; MKK); Perla (Ma.; JFM); Plumajillo (Mex.; AUS); Roelleke (Swe.; KAB); Roellike (Den.; KAB); Rojmari (Bom.; KAB; WO2); Roojamari (Kan.; WO2); Ryllik (Nor.; POR); Saigun (Lad.; MKK); Saijuni (Lad.; MKK); Schafgarbe (Ger.; EFS; USN); Seiyo Nokogiriso (Japan; TAN); Sereno de Invierno (Dor.; AUS); Soldaterurt (Den.; POR); Suila (Arab.; KAB); Taopi Pexuta (Lakota; AUS); Tausendblatt (Ger.; POR); Tesyachelistnik (Rus.; KAB); Tlanquequetzal (Mex.; Nahuatl; AUS); Tysiacznik Ziele (Pol.; KAB); Tysjacelistnik Obyknovenyj (Rus.; POR); Vanlig Rölleka (Swe.; POR); White Yarrow (Eng.; FAC); Wr' T'sa Çin Dse Egon (Osage; AUS); Xante Canxlogan (Lakota; AUS); Yā Zò Shú Pí (Pin.; DAA); Yaroo (Japan; POR); Yarrow (Eng.; Scn.; AH2; CR2; USN).

**Activities:**

Abortifacient (f; CRC); Analgesic (f1; APA; CRC; WO2); Anthelmintic (f; CRC); Antiaging (f; DAA; WO2); Antibabesial (1; X15978758; X16141673); Anticonvulsant (1; WO2); Antidepressant (f; AAH); Antiedemic (1; APA; CAN; PH2); Antihistaminic (1; WO2); Antiinflammatory (1; APA; PH2; PNC; WAM); Antiirritant (1; WO2); Antileukemic (1; X8069962); Antimalarial (1; X16141673); Antioxidant (1; X12860311); Antiperspirant (f; PHR); Antiseptic (12; APA; BGB; KOM); Antispasmodic (f12; BGB; KOM; SHT; WO2; X17009839); Antispermagenic (1; X9883387); Antitumor (1; X16387422; X8069962); Antiulcer (1; X16647233); Antiviral (f; CRC); Anxiolytic (f1; X15597307); Apoptotic (1; X16387422); Astringent (f12; KOM; SHT); Bactericide (12; APA; KOM; PIP; X16317658); Candidicide (1; X12860311); Carminative (f; PED); Cerebrotonic (f; KAB); Cholagogue (1; BGB; PH2); Choloretic (12; APA; KOM; PIP; X16303291); CNS-Depressant (1; APA; CAN); Culicide (1; CRC); Cytotoxic (1; X16387422); Depurative (f; KAB); Dermatitic (1; X1815484); Diaphoretic (1; APA; BGB; WAM); Diuretic (1; APA; CAN; PNC); Emmenagogue (f; CRC);

WO2); Estrogenic (1; X16860978); Expectorant (1; FAD; PED); Febrifuge (f1; BGB; CRC; PNC); Gastroprotective (1; X16255542); Genotoxic (1; WO3); Gram(-)-icide (1; X16317658); Hemostat (f12; APA; CAN; WAM); Hepatoprotective (f1; WO3; X16619341); Hypoglycemic (f; PED); Hypotensive (1; BGB; CRC; PNC); Insecticide (1; CRC; MKK); Insectifuge (1; WO2; X16506457); Ixodifuge (1; X16360943); Laxative (f; CRC); Mosquitofuge (f1; AUS; X16506457); Orexigenic (f12; APA; KOM); Sedative (1; APA; CRC); Sternutatory (1; WO2); Stimulant (f; CRC; PED); Trypanosomic (1; X17349626); Urinary Antiseptic (1; CAN); Vulnerary (f; KAB).

### Indications:

Acne (f; JFM); Aging (f; DAA; WO2); Allergies (1; WO2); Alopecia (f; CRC); Amenorrhea (f; JFM; KAB; PNC); Anorexia (f12; APA; KOM; PIP; PH2); Anxiety (f1; X15597307); Appetite (f12; APA; KOM); Arthrosis (1; APA); Asthma (f; AAH); Babesia (1; X16141673); Backache (1; APA); Bacteria (12; APA; CRC; KOM; PIP; X15978758; X16317658); Bilioussness (f; MKK); Bleeding (f12; FNF; PHR); Bruises (f; KAB); Burns (1; APA); Cancer (f1; CRC; JLH; X16387422; X8069962); Cancer, breast (f; JLH); Cancer, foot (f; JLH); Cancer, liver (f; JLH); Cancer, penis (f; JLH); Cancer, spleen (f; JLH); Cancer, uterus (f; JLH); *Candida* (1; WO3; X12860311); Catarrh (f1; AAH; BGB; PNC); Chicken Pox (f; WAM); Cholecocystosis (12; APA; PH2; PNC); *Clostridium* (1; X12860311); Colds (1; BGB; FAD; WAM); Colic (f; KAB; PIP); *Condylomata* (f; CRC); Congestion (1; APA); Constipation (f; CRC); Convulsions (f1; PH2; WO2); Coughs (1; APA); Cramps (f12; APA; BGB; KOM; SHT; WO2; X17009839); Cystosis (f; AAH); Delirium (f; KAB); Depression (f; AAH); Dermatitis (f1; BGB; DAA; WAM); Diabetes (f; PED); Diarrhea (1; CRC; JAD); Dysmenorrhea (f12; AAH; APA; KOM; SHT); Dyspepsia (f12; APA; KOM; PH2; PIP); Dysuria (f; CRC; KAB); Earache (f; CRC; KAB); Edema (1; APA; CAN; PH2); Enterorrhagia (12; FAD); Enterosis (f12; APA; BGB; FAD; KOM; PHR; X16317658); Epilepsy (f; CRC); Epistaxis (1; APA); *Escherichia* (1; WO3); Fever (f1; APA; BGB; CRC; PNC; WAM); Fistula (f; CRC); Flu (f1; BGB; CRC; DAA; WAM); Fungus (1; WO3); Gas (f; KAB); Gastritis (f12; FAD; KOM; X16317658); Gastrosis (1; APA; BGB; PHR; X16255542); Gingivitis (f; MKK); Gleet (f; KAB); Grippe (f; BGB); Headache (f; BGB; CRC); Head Colds (f; KAB); Heartburn (f; KAB); *Helicobacter* (1; X16317658); Hematochezia (f; AUS); Hematoma (f; CRC); Hematoptysis (f; AUS); Hematuria (f; AUS); Hemorrhage (f12; FAD); Hemorrhoids (1; CRC; FNF; PHR); Hepatosis (f12; JLH; PHR; PH2; WO3; X16619341); High Blood Pressure (f1; APA; BGB; CRC; PNC); Hyperglycemia (f; PED); Hyperpigmentation (f; WO3); Hysteria (f; CRC); Incontinence (f; CRC); Induration (1; CRC; JLH); Infection (12; APA; BGB; CAN; KOM); Inflammation (1; APA; JAR12:99; PHR; PH2; PNC; WAM); Jaundice (f; AAH); Leukemia (1; WO3; X8069962); Leukorrhea (f; CRC); Malaria (f1; DEP; KAB; WO3; X16141673); Measles (f; CRC); Melancholy (f; CRC); Menorrhagia (f; CRC); Mucosis (1; APA); *Mycobacterium* (1; X12860311); Mycosis (1; WO3); Nerves (f1; CRC; X15597307); Nervousness (1; APA; CRC); Pain (f1; APA; CRC; KAB; PHR; WO2); Perspiration (f; PHR); Pertussis (f; DAA); Pleurisy (f; CRC); Poison Ivy (f; WAM); Pneumonia (f; CRC); Pulmonosis (f; KAB); Rashes (f; APA; CRC; WAM); Respirosis (f; BGB); Rheumatism (f; CRC); Sclerosis (f; JLH); Seborrhea (f; WO3); Smallpox (f; CRC); Sores (f; WO2); Sore Throat (f; CRC); Spasms (f12; BGB; KOM; SHT; WO2; X17009839); Splenosis (f; JLH); *Staphylococcus* (1; WO3); *Streptococcus* (1; X12860311); Swelling (f1; KAB; WO3); Thrombosis (1; CAN); Toothache (f; CRC; MKK); Tuberculosis (f; CRC); Tumors (f1; JLH; X16387422; X8069962); Ulcers (f1; CRC; X16317658; X16647233); UTIs (1; APA; CAN); Varicosity (f; PH2); VD (f; KAB); Warts (f; CRC); Wen (f; CRC); Whitlow (f; WO2); Worms (f; AAH); Wounds (f1; APA; BGB; KAB; PHR); Yeast (1; WO3). And I wouldn't touch this one with a 10-foot tub: painful, cramp-like conditions of psychosomatic origin in the lower part of the female pelvis, as a sitz bath (KOM; PH2).

**Dosages:**

FNFF = ! Leaves edible; used as tea. Young leaves eaten in salads, sauces and soups, cooked as vegetable, steeped in teas or used like hops in beer, and believed to make them more intoxicating (DEP). EO used to flavor alcoholic and non-alcoholic beverages (FAC). 1–2 tsp herb/cup water/3–4×/day (APA); 4.5 g herb (KOM); 2–4 tbsp fresh herb (PED); 3–6 g dry herb (PED); 1 g flower (KOM); 2–4 g flower head, or in tea, 3×/day (CAN); 0.5–1 tsp tincture (APA); 2–4 ml tincture (1:1 in 45% ethanol) 3×/day (CAN); 3 tsp juice (APA; KOM); 2–4 ml liquid extract (1:1 in 25% ethanol) 3×/day (CAN); 4.5 g dry fl:22 ml alcohol/23 ml water (PED); 2–4 ml liquid herb extract (PNC). Commission E approves 4.5 g yarrow for anorexia, dyspepsia, GI discomforts (PM60:1994).

- Argentinians use tea (10 g herb/500 g water) for amenorrhea, bloody diarrhea, catarrh, and tuberculosis (JFM).
- British insert leaves in nostrils to provoke bleeding thereby relieving headache and migraine (AAH).
- Cherokee use for fever, hematachezia, hematoptysis, and hematuria (AUS).
- Chickasaw use for neck cramps (AUS).
- French use as emmenagogue and to suppress the lochia (KAB).
- Irish chew leaves or smoke in pipe for toothache (AAH).
- Javans use aqueous extract for malaria (X16141673).
- Norwegians chew herb for toothache, using also for rheumatism (KAB).
- Peruvians use as circulatoric, hemostat, and for hemorrhoids (EGG).
- Scots believe warm tea good for colds and other childhood diseases (AAH).
- Somerset women wear yarrow in the shoe for dysmenorrhea and metrorrhagia (AAH).
- Yunani consider flowering tops analgesic, anthelmintic, cerebrotonic, diuretic, emmenagogue, febrifuge, stimulant, tonic, and uterotonic, and use for delirium, dysuria, gleet, head cold, and hepatitis (KAB).

**Downsides:**

Class 2b; emmenagogue, uterotonic (AHP), hence contraindicated in pregnancy (PH2; WAM). Because thujone in the oil is reputed to be abortifacient and to affect the menstrual cycle, its use in pregnancy and lactation is to be avoided (CAN). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). Commission E reports hypersensitivity to milfoil and other Asteraceae (KOM). Other sources report hypersensitivity to sesquiterpene lactones. Rare contact allergy (AEHD). Newall, Anderson, and Phillipson (1996) report that the sesquiterpene lactones are allergenic and can cause dermatosis. Contraindicated in allergies, dermatosis, and epilepsy (CAN). Excessive doses may interfere with or augment anticoagulant, blood pressure, diuretic, and sedative medications (CAN). “Available data are insufficient to support the safety of yarrow use in cosmetic products” (X11558643). As of July 2007, the FDA Poisonous Plant Database listed 58 titles alluding to toxicity of this species.

**Extracts:**

LD50 = 12,000 mg/kg scu rat; LD50 = 16,860 mg/kg scu rat; LD100 = 20,000 mg/kg scu rat; LD50 = 3,650 mg/kg orl mus; 3,100 ipr mus; 999 mg/kg scu mus. Extracts antiemetic, antihistaminic, antiinflammatory, antiprostaglandin, and diuretic. EO CNS-depressant, 300 mg/kg orl rat hypothermic, motor-depressant, 300–600 mg/kg orl rat anticonvulsant, sedative. Flavonoid fractions antispasmodic; basic fractions antipyretic, hypotensive (CAN). EO of one Greek variety contained nearly 50% ascaridole (WO3). Ethanolic extract of yarrow repels *Aedes* mosquitoes, due mainly to caffeic acid, chlorogenic acid, pyrocatechol, salicylic acid, and stacydrine, also active adenine, ferulic acid, mandelic acid, and methyl esters of caprylic-, linolenic-, and undecylenic acids (WO3).



Leaf extract reduced biting by *Aedes* mosquitoes (X16506457). A fraction enriched in dicaffeoylquinic acids (DCCAs) and luteolin-7-O-beta-d-glucuronide was 2–3 times as choleric as cynarin (X16303291). Extract enhanced protective properties of gastric juice (X16255542).

Migraine relief from ancient Mayan remedy (ACT2(6):414. 1996). While I doubt that linden (*Tilia grandifolia*) and yarrow (*Achillea millefolium*) were combined with vitamin B complex by ancient Mayans, I do appreciate Carlos Hernandez Robles, MD's report of near 100% success in treating migraine with close to 2,000 Mexicans. Follow-up studies in the Netherlands (Erasmus Univ., Rotterdam) led to 29 migraine-free patients for one year. With the EO used in Iran for neuralgia and rheumatic pain, Afsharypuor et al. (1996) report that wild Iranian yarrow's oil is dominated by a-bisabolol, spathulenol, cis-nerolidol, cis-carveol and trans,trans-farnesol. Strangely, even though yarrow is a well-studied herb, most of the compounds they report were new to my database for yarrow. Their data increased the ppms for the antiinflammatory bisabolol nearly 100-fold, rationalizing the antirheumatic activity. Still at 925 ppm yarrow is far behind chamomile at 10,000 ppms bisabolol. Shall we think of it as the poor man's bisabolol? It's a weed. Camomile is not. The bornyl acetate, quantified at 50 ppm, adds its spasmolytic and sedative activity. The 50 ppms himcholine may add to antiinflammatory activity. And they add the anodyne antispastic activity of phenol.

### MACELA (*Achyrocline satureioides* (Lam.) DC.) +

#### ASTERACEAE

#### Illustrations:

fig 247C (ARG)

#### Synonyms:

*Achyrocline albicans* Gris.; *A. candicans* (Kunth) DC.; *A. citrina* Gris.; *A. mathiolaefolia* DC.; *A. mollis* Benth.; *A. vargasiana* DC.; *Gnaphalium candicans* Kunth; *G. satureioides* (Lam.) DC. (basionym); fide (EGG; MPG; USN).

#### Common Names:

Allqo Wirawira (Bol.; Que.; DLZ); Bira Bira (RAI); Camomila Nacional (RAI); Hembra Marcela (RAI); Huiru Huiru (Peru; Que.; EGG); Juan Blanco (RAI); K'aja Wirawira (Aym.; Bol.; DLZ); Kea Kea (Aym.; Peru; EGG); Macela (Brazil; Eng.; Por.; Scn.; AH2; MPB; RAI; USN); Macelo do Campo (Brazil; MPB); Marcela (Brazil; Uru.; MPB; MPG); Marcela da Mata (Brazil; MPB); Marcela Hembra (Arg.; Uru.; MPG); Marcelita (RAI); Mirabira (RAI); Perpétua do Mato Suso (Brazil; RAI); Vira Vira (Bol.; DLZ; RAI); Wira Wira (RAI); Yatey Caa (RAI); Yerba de Chico (RAI).

#### Activities:

Analgesic (1; MPG; RAI); Anthelmintic (f; MPG); Antiaggregant (f; RAI); Anticonvulsant (f; RAI); Antiherpetic (1; MPG; X15551398); Antihyperglycemic (1; X11858757); Antiinflammatory (f1; MPB; MPG); Antioxidant (1; RAI; X15050420; X16114090; X9876284); Antiradicular (1; RAI); Antiseptic (f1; MPG; RAI); Antispasmodic (1; MPB; MPG); Antitumor (1; RAI); Antitussive (f; DLZ; RAI); Antiviral (1; RAI; X10932751; X15551398); Aphrodisiac (f; RAI); Bactericide (1; RAI); Bitter (f; MPB); Cardiac (1; RAI); Carminative (f; MPG); Cholagogue (f1; MPG; RAI); Cytoprotective (1; X15036461; X15050420); Cytotoxic (1; X15050420); Diaphoretic (1; RAI); Digestive (f1; MPG; X11820863); Emmenagogue (f; RAI); Expectorant (f; EGG); Febrifuge (f; DLZ; EGG; MPG); Hepatoprotective (1; RAI; X11820863); Hypocholesterolemic (f; MPG); Hypo-

glycemic (1; RAI); Immunostimulant (1; MPG; RAI; X4052142); Immunosuppressant (1; X10189954); Insecticide (1; RAI); Molluscicide (1; MPG); Mutagenic (1; MPG); Myorelaxant (1; MPG; RAI; X15185852); Phagocytotic (1; MPG); Prooxidant (1; X15050420); Sedative (f1; MPG; RAI); Stomachic (f; MPB); Sudorific (f; EGG); Tonic (f; DLZ; MPG); Vasorelaxant (1; X15185852); Vermifuge (1; RAI).

### Indications:

Amenorrhea (f; MPG; RAI); Anorexia (f; RAI); Asthma (f; EGG; MPG; RAI); Bacteria (1; RAI); Bronchosis (f; RAI); Cancer (1; RAI; X15050420); Cancer, liver (1; RAI); Cholecocystosis (f; RAI); Colds (f; RAI); Colic (f; RAI); Colitis (f; RAI); Convulsions (f; RAI); Coughs (f; DLZ; RAI); Cramps (f; RAI); Diabetes (f1; MPG; RAI); Diarrhea (f1; RAI); Digestion (f1; MPG; X11820863); Dysentery (f1; MPB; RAI); Dysmenorrhea (f1; RAI); Dyspepsia (f; MPG; RAI); Enterosis (f; RAI); Epilepsy (f; RAI); *Escherichia* (1; RAI); Fever (f; DLZ; EGG; MPG); Flu (f; RAI); Gallstones (f; RAI); Gas (f; MPG; RAI); Gastrosis (f; MPB; RAI); Headache (f; RAI); Hepatosis (f1; RAI; X11820863); Herpes (1; MPG; RAI; X15551398); High Cholesterol (f; MPG); HIV (1; RAI); IBS (f; RAI); Hyperglycemia (1; RAI; X11858757); Impotence (f1; MPG; RAI; X15185852); Infection (f1; MPG; RAI); Inflammation (f1; MPB; MPG; RAI); Insomnia (f1; MPG; RAI); Myalgia (f; RAI); Nausea (f; RAI); Neuralgia (f; RAI); Neurosis (f; RAI); Pain (f1; MPG; RAI); Pertussis (f; DLZ); Pseudo-Rabies (1; RAI); Rheumatism (f; RAI); *Salmonella* (1; RAI); Spasms (f1; MPG; RAI); *Staphylococcus* (1; RAI); Tumors (f1; MPG; RAI); Viruses (1; RAI; X10932751; X15551398); Worms (f1; MPG; RAI).

### Dosages:

FNFF = ! One cup herb tea 2–3×/day (RAI); 1–2 g herb capsule or tablet 2–3×/day (RAI); 2–3 ml herb tincture 2×/day (RAI).

- Argentinians use for asthma, diabetes, dysmenorrhea, and dyspepsia (MPG; RAI).
- Bolivians use as anticonvulsant, antitussive, carminative, febrifuge, and tonic (DLZ; RAI).
- Brazilians use for anorexia, bacteria, colds, colic, diabetes, diarrhea, dysentery, dysmenorrhea, dyspepsia, enterosis, epilepsy, flu, gallstone, gastrosis, headache, hepatosis, inflammation, insomnia, nausea, neuralgia, pain, rheumatism, and spasms (MPB; RAI).
- Colombians use for cholecocystosis and tumors (MPG; RAI).
- Paraguayans use for bacterial infection and worms (RAI).
- Peruvians use for bronchoses, cough, and diabetes (RAI).
- Uruguayans use as antiinflammatory, antiseptic, carminative, cholagogue, emmenagogue, hypocholesterolemic, and sedative; for bacteria, dysmenorrhea, dyspepsia, impotence, infection, inflammation, insomnia, and spasms (MPG; RAI).
- Venezuelans use for diabetes, dysmenorrhea, and impotence (MPG; RAI).

### Downsides:

Not covered (AH2; KOM; PH2). Diabetics, hypoglycemics, and pregnant women might advise their practitioners. May potentiate barbiturates and other sedatives, insulin (RAI). As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

### Extracts:

LD50 (aqueous extracts) = >5,000 mg/kg orl rat (X15507360). A prenylated dibenzofuran, achyrofuran, isolated from the extract significantly lowered blood glucose levels (20 mg/kg q.d.) in bioassay-guided fractionation using the db/db mouse model for type 2 diabetes (X11858757). According to granulocytes and carbon clearance tests, polysaccharide fractions from water extracts with molecular weights in the range of 25,000 to 500,000 and higher showed significant immunostimulant activity (X4052142).

**PERENNIAL PARA CRESS (*Acmella oleracea* (L.) R. K. Jansen.) +****ASTERACEAE****A****Illustrations:**

pl 533A (KAB)

**Synonyms:**

*Spilanthes acmella* DC. var. *oleracea* (L.) Hook. f.; *S. acmella* Murr. var. *oleracea* Hook. f.; *S. acmella* DC. var. *oleracea* (Jacq.) Baker; *S. oleracea* Jacq.; *S. oleracea* L. (basonym); *Spilanthus oleracea* L.; fide (POR; USN).

**Notes:**

Regrettably, McGuffin et al. (2000) recognize *Spilanthes acmella* (now *Blainvillea acmella* in USN) and *Spilanthes oleracea* (now *Acmella oleracea* in USN) as distinct species but assigns them both the standardized name “spilanthes” and other common names “para cress” and “toothache plant.” Backed into a corner I am sticking with USN, who also recognize *Acmella oppositifolia*. Yet nowhere do I find a key to the three species, now scattered through two genera.

*Acmella oleracea* = perennial para cress

*Acmella oppositifolia* = opposite-leaved para cress

*Blainvillea acmella* = annual para cress

The JTR entries may in fact apply to *Blainvillea*, since Roig y Mesa (1928) describe it as a cultivated annual encountered in Trinidad (RyM).

**Common Names:**

Agrião do Brasil (Por.; POR); Agrião do Pará (Brazil; Por.; EGG; POR); Akalkar (Sanskrit; EFS); Akra (Bom.; SKJ); Anamafana (Betsimaraka; Sakalave; KAB); Anamalaho (Hova; KAB); Anamalahokely (Hova; KAB); Anamalahombazaho (Hova; KAB); Anamalahoye (Hova; KAB); Berro de Pará (Por.; POR); Berros del Para (Rus.; KAB); Botão de Ouro (Por.; POR); Botoncillo (Peru; EGG); Botón de Oro (Pr.; Peru; Por.; EGG; JTR; POR); Brazil Cress (Eng.; POR); Braziliaanse Cresson (Dutch; POR); Brazilskiy Kress (Rus.; KAB); Brède Mafane (Fr.; POR); Brede Malgache (Fr.; KAB); Cabrito (Cuba; Por.; JTR; POR); Chimaya (Peru; JTR); Cobiriqui (Nomatsiguenga; Peru; EGG); Contrayerba (Peru; JTR); Creixans del Para (Cat.; KAB); Cress of Para (Eng.; EFS); Cresson de Para (Fr.; POR); Cresson du Bresil (Fr.; KAB); Cresson du Para (Fr.; KAB); Cresson Para (Fr.; Guy.; KAB); Cúc áo Rau (Vn.; POR); Deflamatoria (Peru; JTR); Espilanto (Por.; Rus.; KAB; POR); Henkala (Burma; DEP); Hierba del Espanto (Por.; POR); Huzarenknoop (Dutch; POR); Inambu (Por.; POR); Jambú (Por.; Sp.; POR); Jambuacú (Brazil; Por.; EGG; POR); Jambú do Rio (Por.; POR); Jamburana (Por.; POR); Kibana Oranda Sennichi (Japan; POR); Kiespijnknoppenkruid (Dutch; EFS); Kimotodoha (Betsileo; KAB); Mangevitsa (Betsileo; KAB); Mastruco (Brazil; KAB); Mata Gusanos (Peru; JTR); Yambu (Por.; POR); Nhambu (Por.; POR); Pakarmul (India; Pun.; EFS; SKJ); Para-Cress (Eng.; KAB; POR; USN); Parakrasse (Swe.; POR); Parakres (Dutch; EFS); Parakress (Ger.; KAB); Parakresse (Den.; Ger.; EFS; POR); Paratuinkers (Dutch; POR); Perennial Cress (Eng.; WOI); Perennial Para Cress (Eng.; POR); Phak Khrat (Thai; POR); Phak Phet (Thai; POR); Pimenteira do Pará (Brazil; Por.; KAB; POR); Qian Ri Ju (China; POR); Remedio de los Pobres (Por.; POR); Roshunia (Ben.; SKJ); Somam (Amuesha; Peru; Yanasha; EGG); Spilante (It.; POR); Spilanthe des Potagers (Fr.; POR); Tandvärksplanta (Swe.; POR); Toothache Plant (Eng.; POR; USN); Tsarskiy Kress (Rus.; KAB); Ukra (Madras; SKJ); Yerba del Espanto (Peru; JTR); Yin Du Jin Niu Kou (China; POR); Yuyo Quemada (Peru; EGG).



**Activities:**

Anthelmintic (f; JTR); Antiscorbutic (f1; FNF; JTR); Antiseptic (f; EGG); Antitumor (f; JLH); Convulsant (1; X2758174); Insecticide (1; WOI); Sialogogue (f1; DEP; JTR; SKJ); Stimulant (f; DEP; SKJ).

**Indications:**

Cancer (f; JLH); Cancer, prostate (f; JLH); Cystosis (f; WOI); Diabetes (f; EGG); Gingivitis (f; DEP; SKJ; WOI); Glossosis (f; DEP; SKJ); Gout (f; EFS; WOI); Headache (f; DEP; SKJ); Hepatosis (f; EGG); Infection (f; EGG); Pain (f; WOI); Paralysis (f; DEP; SKJ); Prostatosis (f; JLH); Scurvy (f; WOI); Sore Throat (f; DEP; EGG; WOI); Stammering (f; KAB; SKJ); Toothache (f; JTR; SKJ; WOI); Tumors (f; JLH); Worms (f; JTR); Xerostoma (f1; DEP; FNF).

**Dosages:**

FNFF = ! Herb eaten raw or steamed, e.g., in Peru, especially pre-conquest (EGG; WOI).

- Brazilians use the leaves for prostate cancer (JLH).
- Peruvians chew the flowers for dental and throat pain (EGG).
- Peruvians use the plant decoction as antiseptic (EGG).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**Extracts:**

Extract induced convulsion in rats (ip 50–150 mg/kg) (X2758174).

**OPPOSITE-LEAVED PARA CRESS**

*(Acmella oppositifolia* (Lam.) R. K. Jansen var. *oppositifolia*) +

ASTERACEAE

**Illustrations:**

p 62 (AUS)

**Synonyms:**

*Acmella pilosa* R.K. Jansen; *Anthemis americana* Mutis ex L.; *A. occidentalis* Willd.; *A. oppositifolia* Lam. (basionym); *Ceratocephalus americanus* (Mutis) Kunth.; *Spilanthes americana* (Mutis) Hier; *S. beccabunga* DC.; *S. mutisii*; *S. oppositifolia* (Lam.) D'Arcy; fide (BNA; MPG; USN).

**Notes:**

Regrettably McGuffin et al. (2000) recognizes *Spilanthes acmella* (now *Blainvillea acmella* in USN) and *Spilanthes oleracea* (now *Acmella oleracea* in USN) as distinct species but assigns them both the standardized name “spilanthes” and other common names “para cress” and “toothache plant.” Backed into a corner I am sticking with USN, which also recognizes *Acmella oppositifolia*. Yet nowhere do I find a key to the three species I cover, now scattered through two genera.

*Acmella oleracea* = perennial para cress

*Acmella oppositifolia* = opposite-leaved para cress

*Blainvillea acmella* = annual para cress

Not finding *Acmella ciliata* elsewhere, I am including it herein, from Lacaze and Alexiades (1995), as MD2.

**Common Names:**

Abecedária (Brazil; AUS); Agrião Bravo (Brazil; AUS); Botão de Ouro; Botoncillo (Bol.; Col.; Ecu.; Peru; DLZ; EGG; IED; MPG; RAR); Botón de Oro (Col.; Peru; EGG; MPG; RAR); Botón Sula (Peru; EGG; RAR); Calabaza (Ma.; JFM); Chisacá (Col.; Pan.; AUS; IED; JFM; MPG); Chisacá Calentano (Col.; IED); Chisacá de Cafetal (Col.; IED); Cresson de Para (Ma.; JFM); Curundú (Bol.; Chiriguano; DLZ); Deflamadera (Peru; EGG); Eséshijaji (Ese'èja; MD2); Flor de Maria (Ma.; JFM); Grana de Oro (Ma.; JFM); Guaca (Col.; AUS; MPG); Jambu (Brazil; AUS); Jambu Açu (Brazil; AUS); Kobiriki (Matsigenka; Shipibo; MD2); Kobiripini (Shipibo; MD2); Ni (Huastec; AUS); Obiriqui (Peru; Shipibo/Conibo; EGG); Pimenta d'Água (Brazil; AUS); Quemadera (Col.; AUS; MPG); Rem (Ma.; JFM); Rem'q en (Ma.; JFM); Risacá (Col.; Pan.; AUS; IED; JFM; MPG); Salivatorio (Peru; EGG); Santa Maria (Col.; IED); Sheta Rao (Peru; Shipibo/Conibo; EGG; MD2); Spot Flower (Fla.; Eng.; AUS); Tripa de Gallo (Ma.; JFM); Xux (Maya; AUS; JFM); Yuyo (Col.; MPG); Yuyo Quemada (Col.; IED; MPG). (Nscn).

**Activities:**

Analgesic (f; MPG); Anesthetic (1; MPG); Antibilious (f; MPG); Antiinflammatory (f; RAR); Antispasmodic (f; EGG); Cholinergic (1; MPG); CNS-Stimulant (1; MPG); Sialogogue (f; EGG; MPG).

**Indications:**

Acne (f; MD2); Aphtha (f; MPG); Arthrosis (f; DLZ); Backache (f; DLZ); Bilioussness (f; MPG); Bites (f; MD2); Burns (f; MD2); Caries (f; MD2); Cramps (f; EGG); Dermatitis (f; MD2; MPG); Hepatitis (f; IED; MD2); Inflammation (f; RAR); Itch (f; MD2); Odontosis (f; JFM); Pain (f1; DLZ; MPG); Rheumatism (f; DLZ); Sore Throat (f; AUS; JFM); Spasms (f; EGG); Stings (f; MD2); Stomatosis (f; AUS; JFM; MPG); Toothache (f; MD2; MPG).

**Dosages:**

FNFF = ! Leaves eaten in salads or cooked as greens (JFM).

- Bolivians use root decoction as anesthetic for arthritic and back pains (DLZ).
- Choco Indians eat leaves to treat liver problems (IED; JFM).
- Colombians take small cup of decoction while fasting as an antibilious hepatoprotectant and to scrub away age spots on the face (MPG).
- Colombians tamp gold flowers in cavities for toothache (MPG).
- Peruvians chew the flowers to strengthen the teeth and prevent caries, and also as dental anesthetics and sialogogues (EGG; MD2).
- Peruvians take the leaf tea as antispasmodic (EGG).

**WILD TOBACCO (*Acnistus arborescens* (L.) Schlttdl.) +  
SOLANACEAE**

**Illustrations:**

pl 253B (DAG)

**Synonyms:**

*Atropa arborescens* L. (basionym); *Dunalia arborescens* Sleum.; *D. campanulata*; fide (EGG; JFM; USN).

**Notes:**

The name “quiebraollas” (pot buster) accrues because the wood burns so that it may break pots over the fire (EGG).

**Common Names:**

Baikuanim (Aguaruna; Peru; SOU); Batard Sirio (Ma.; JFM); Belladone Arborescent (Guad.; AVP); Cojojo (Ecu.; Ma.; DAG; JFM); Espino (Peru; EGG); Esporão de Galo Falso (Brazil; MPB); Fruto de Sabia (Brazil; Ma.; JFM; MPB); Fruto Gallino (Col.; AVP); Galán (Pr.; AVP); Galán Arboreo (Pr.; AVP; JFM); Gallinero (Pr.; AVP); Güitite (Cr.; Ecu.; AVP; DAG); Huitite (Ma.; JFM); Macaoqui (Peru; EGG); Madera de Pega (Ma.; JFM); Mariana (Brazil; Ma.; JFM; MPB); Marianeira (Brazil; Ma.; JFM; MPB); Mata Gallina (Dor.; AHL; AVP); Matapaqui (Ma.; JFM); Mixito (Ma.; JFM); Nuguito (Ma.; JFM); Palo de Gallina (Pr.; AVP); Palo de Pollo (Ma.; JFM); Piropiro (Peru; EGG); Quiebra Ollas (Ma.; Peru; EGG; JFM); Sureau (Fwi.; JFM); Sureau du Pays (Guad.; AVP); Surio (Ma.; JFM); Tabaco de Monte (Ma.; JFM); Tabalque (Col.; AVP; JFM); Tomatoquina (Col.; AVP); Toque (Ma.; JFM); Tree Tobacco (Ma.; JFM); Tree Wild Tobacco (Eng.; AVP); Uvito (Ma.; JFM). (Nscn).

**Activities:**

Anticancer (f1; JLH; X11867095; X15104512; X15241891); Antileukemic (1; X15241891; X16824549); Antimalarial (1; X16713157); Antiproliferant (1; X16824549); Cytotoxic (1; X11867095; X15104512; X15241891; X16824549); Diuretic (f; MPB); Emollient (f; EGG); Narcotic (f; MPB); Piscicide (1; JFM).

**Indications:**

Arthritis (f; EGG); Cancer (f1; JLH; X11867095; X15104512; X15241891; X16824549); Caries (f; EGG); Colds (f; DAW; JFM); Coughs (f; JFM); Fever (f; DAW; JFM); Gastrosis (f; JFM); Hemorrhoids (f; JFM; MPB); Leukemia (1; X15241891; X16824549); Malaria (1; X16713157); Migraine (f; EB30:137); Mumps (f; EB30:137); Neuralgia (f; EB30:137); Oliguria (f; MPB); Pain (f; EGG; JFM); Rheumatism (f; EGG); Sore Throat (f; JFM); Toothache (f; EGG).

**Dosages:**

FNFF = X

- Argentinians apply leaf decoction to hemorrhoids (JFM).
- Costa Ricans gargle decoction made from new shoots for sore throat; young stem sap or crushed leaves applied to piles (JFM).
- Dominicans use leaf decoction for cold and fever (JFM).
- French West Indians use floral tea for cough and gastrosis (JFM).
- Peruvians apply leaves as emollient in lard to rheumatic aches (EGG; JFM).
- Trinidadians use leaf poultice for fever, migraine, mumps, and neuralgia (JFM).

**Downsides:**

Fruit said to poison poultry (AHL). As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**Extracts:**

Two withaphysalin compounds isolated from the leaves displayed potent cytotoxic activities against several cancer cell lines (IC<sub>50</sub> = 0.20–1.46 µg/ml; IC<sub>50</sub> = 0.89–8.08 µg/ml) (X11867095; X15104512; X15241891).

**COYOL PALM (*Acrocomia aculeata* (Jacq.) Lodd. ex Mart.) ++**

**ARECACEAE**

**Illustrations:**

p 35 (L&W)

**Synonyms:**

*Acrocomia fusiformis* (Sw.) Sweet; *A. lasiospatha* Mart.; *A. media* O. F. Cook; *A. mexicana* Karw. ex Mart.; *A. microcarpa* Barb. Rodr.; *A. mokayayba* Barb. Rodr.; *A. sclerocarpa* Mart.; *A. spinosa* (Mill.) H. E. Moore; *A. totai* Mart.; *A. vinifera* Oerst.; *Bactris pavoniana* Mart.; *Cocos fusiformis* Sw.; *Euterpe aculeata* (Willd.) Spreng.; fide (POR; USN).

**Common Names:**

Acrocome (Fr.; POR; USN); Akurokomia (Japan; POR); Akurokomia Yashi (Japan; POR); Akurokomiya (Japan; POR); Amankayo (Sp.; POR; USN); Biga Raagu (Ma.; JFM); Bo Duo Li Ge Ge Lu Zong (China; POR); Catei (Dor.; AVP); Cayara (Bol.; Mex.; DLZ); Cheech (Ma.; JFM); Chunta (Arg.; AVP); Coco (Par.; AVP); Cocoyal (Bel.; BNA); Cocoyal (Bel.; BNA); Cocoyul (Bel.; BNA); Colconab (Ma.; JFM); Coquito Baboso (Mex.; Sp.; JFM; PCS; POR); Coquito Habroso (Ma.; JFM); Corojo (Cuba; Sp.; JTR; USN); Corojo de Jamaica (Cuba; JTR); Corojo Palm (Eng.; POR); Corosse (Haiti; AVP); Coroxo (Peru; RAR); Corozo (Dor.; Nic.; Pr.; Sp.; Ven.; JTR; POR; USN); Corozo Criollo (Dor.; Pr.; JTR); Coyal (Cr.; Fr.; Hon.; Mex.; Sp.; AVP; JFM; PCS; POR); Coyal Babosa (Ma.; JFM); Coyal Baboso (Mex.; POR); Coyal Espinosos (Ma.; JFM); Coyoli Palm (Eng.; POR; USN); Coyolipalme (Ger.; POR; USN); Coyol Palm (Eng.; POR); Coyol Redondo (Ma.; Mex.; JFM; POR); Cuayu Coyotli (Mex.; PCS); Cum (Ma.; JFM); Ge Lu Ye Zi (Hong Kong; Taiwan; POR); Groo-Groo (Trin.; JTR); Grugru (Fr.; Pr.; JTR; USN); Grugru Palm (Bel.; BNA; USN); Guacoyol (Mex.; JFM; PCS); Istok (Ma.; JFM); Macaúba (Ma.; FAC); Macaw Palm (Eng.; POR; USN); Map (Ma.; JFM); Mbocayá (Par.; AVP); Mbocaya Palm (Par.; FAC); Mexican Wine Palm (Ma.; JFM); Mexico Palm (Eng.; POR); Mocot (Ma.; JFM); Mo Xi Ge Ge Lu Zong (China; POR); Mucaj (Por.; POR); Mucujá (Brazil; POR; RAR); Mucuja Palm (Eng.; POR); Noix de Coyal (Fr.; POR; USN); Palma de Coyal (Ma.; JFM); Palma de Vino (Ma.; JFM); Palma Redonda (Mex.; POR); Palma Redondo (Ma.; JFM); Palmera de Puerto Rico (Sp.; POR); Palmita del Coyal (Sp.; FAC); Paraguay Palm (Eng.; POR; USN); Pi Ci Ge Lu Zong (China; POR); Pi Lu (Ma.; JFM); Prickly Palm (Eng.; L&W); Puerto Rico Acrocomia (Eng.; L&W); Puerto Rico Palm (Eng.; POR); Ruffle Palm (Eng.; POR); Sipa (Bel.; BNA); Supa (Ma.; JFM); Suppa Palm (Bel.; BNA; JFM); Ticachiti (Ma.; JFM); Totai (Bol.; Sp.; POR; USN); Tuc (Ma.; JFM); Tucuma (Sp.; POR; USN); Wine Palm (Ma.; JFM). (Nscn).

**Activities:**

Antiatherogenic (1; JFM); Antiinflammatory (f; JTR); Diuretic (f; JTR); Emollient (f; JTR); Refrigerant (f; JTR).

**Indications:**

Arthrosis (f; JTR); Atherosclerosis (1; JFM); Diabetes (f; JFM); Fever (f; JTR); Inflammation (f; JTR); Oliguria (f; JFM; JTR); Osteosis (f; JTR); Pain (f; JTR).

**Dosages:**

FNFF = ! Sap consumed fresh, fermented as palm wine, or used for starch or sugar. Seed kernels eaten raw, source of a nutritious oil. Terminal buds eaten as palm cabbage in Salvador. In Guatemala fruits are candied in syrup and eaten (FAC; JFM).

- Bolivians and Yucatanese drink powdered carbonized root in water for diabetes (DLZ; JFM).
- Costa Ricans drink sap as a diuretic (JFM).
- West Indians consider the fruit antiinflammatory, diuretic, nutritious, and refrigerant and respect the seed oil for arthritis, bone-ache, and inflammation (JTR).

**MAIDENHAIR FERN (*Adiantum capillus-veneris* L.) ++****PTERIDACEAE****Notes:**

According to Burkill (1985–1995), the generic name derived from the Greek *adiantos*, meaning “unwetted,” and the present species in keeping with the notion of unwettability, was given the epithet meaning “pubic hair.” “The name in English is doubtless a salacious extension.”

**Common Names:**

Adiant (Rus.; KAB); Adiante (Fr.; AUS; EFS); Adianthe (Fr.; KAB); Adianto (It.; EFS; KAB; POR); Adianto Bianco (It.; AUS); Adianton (Greek; KAB); Ægte Venushår (Den.; POR); Aivenca (Por.; UPW); Ajenuz (Sp.; EFS); Akite (Nig.; NWO); Alambrillo (RAI); Apa (Nig.; NWO); Avenca (Brazil; Por.; AUS; RAI; UPW); Avenca Cabelo de Venus (Brazil; JFM); Avenca Comun (Brazil; Por.; AUS); Baldirikara (Tur.; EFS; KAB); Barun (RAI); Bisfaif (India; KAB); Black Maidenhair (Eng.; AUS; NPM); Cabellera de Venus (Ma.; JFM); Cabello de Venus (Brazil; Por.; AUS; KAB); Cabelo de Venus (Ma.; JFM); Capelvenere (It.; AUS; EFS; HH2; KAB); Capelvenere Comune (It.; POR); Capilaria (Por.; UPW); Capilaria de Mompilher (Por.; UPW); Capilera (Sp.; KAB; POR; RAI); Capilera de Mompelie (Sp.; KAB); Capillaire (Fr.; Réunion; AUS; BOU; KAB); Capillaire Cheveux-de-Vénus (Fr.; POR); Capillaire Commune (Fr.; EFS; HH2; KAB); Capillaire de Montpellier (Fr.; EFS; HH2; POR); Capillaire d'Italie (Fr.; KAB); Capillaire Vraie (Fr.; KAB); Capillaria (Por.; KAB); Capille e Jenere (RAI); Capillera (Cat.; KAB); Capil Venere (It.; AUS; KAB); Cebolla de Venus (Peru; EGG); Celantrillo (RAI); Centaurea (RAI); Cheveux de Venus (Fr.; AUS; EFS; HH2; POR); Chib (Maya?; AUS); Chica Voinicului (Rom.; KAB); Cilantrillo (Sp.; JFM; RAI); Cilantrillo de Ojo de Agua (Sp.; JFM); Common Maidenhair (Eng.; AUS; UPW); Cuamaquistli (Mex.; Nahuatl; AUS); Culandrillo (RAI); Culantrillo (Cuba; Mex.; Peru; Sp.; AUS; EGG; HH2; JTR); Culantrillo Capillaire (Ma.; JFM); Culantrillo de Pozo (Cuba; Sp.; Spain; EFS; JTR; POR; RAI; VAD); Damtali (Kas.; DEP); Doddergrass (Eng.; AUS); Duddergrass (Eng.; AUS); Dumtuli (Kas.; NAD); Europees Venushaar (Dutch; POR); Falsia (Cat.; KAB); Failtean Flonn (Gaelic; AUS); Fern Kam Dam (RAI); Frauenhaar (Ger.; AUS; EFS; HH2); Frauenhaarfarn (Ger.; POR); Frawenhar (Ger.; AUS); Geutheer (Kas.; MKK); Gospine-Kosa (Slo.; HH2); Guengit (Ber.; BOU); Hanspadi (Guj.; DEP; KAB); Hansraj (Him.; Hindi; India; EFS; MKK); Helecho Culantrillo (RAI); Herba Capillorum Veneris (RAI); Herbe de Capillaire (Fr.; HH2); Herva Capillar (Por.; KAB); Iunkfrawenhare (Ger.; AUS); Junckfrawenhare (Ger.; AUS); Jungfernhhaar (Ger.; HH2); Kapillarkraut (Ger.; EFS); Kirwatzei (India; KAB); Krasnyi Jenskiy Volos (Rus.; KAB); Kvindehaar (Den.; EFS); Lady's Hair (Eng.; EFS; HH2); Lappenfarn (Ger.; HH2); Maidenhair (Malta; KAB); Maidenhair Fern (Eng.; Scn.; AH2; KAB; POR); Maria's Fern (Eng.; KAB); Mubarak (Hindi; India; Kum.; DEP; EFS; KAB); Nesinka Jhar (Chepang; Nepal; NPM); Net Hair Fern (Nig.; NWO); Netik (Che.; HH2); Ochqewi Miecheken (Delaware; AUS); Ofu Isi (Nig.; NWO); Our Lady's Hair (Eng.; KAB); Pakhale Unyu (Nepal; NPM); Paku-Rambut (Malaya; EFS); Paprika (Slo.; HH2); Parshavarsha (Salt Range; KAB); Parasigavashan (Salt Range; KAB); Pata Lewana (Suto; KAB); Pata Mawa (Suto; KAB); Perul Fetei (Rom.; KAB); Perul Sfantei Marri (Rom.; KAB); Pursha (Hindi; KAB); Rajraf (Ber.; BOU); Saq el Akhal (Arab.; BOU); Sha'ar el-Ard (Arab.; BOU); Sha'ar el-Ghul (Arab.; BOU); Sha'ar el-Khanzir (Arab.; BOU); Shair ul Jin (Arab.; EFS; KAB); Shiruljin (Arab.; DEP; KAB); Shopumbillo (Peru; EGG); Sirsia-Peshane (Iran; EFS; KAB); Southern Maidenhair (Eng.; AUS; USN); Southern Maidenhair Fern (Eng.; POR); Steenruyte (Dutch; AUS); Steinraute (Ger.; HH2); Tursin il Bir (Malta; KAB); Venuksenhiussaniainen (Fin.; POR); Venushaar (Dutch; Ger.; EFS; HH2); Venushaarfarn (Ger.; POR); Venus Hair (Eng.; EFS); Venus Hair Fern (Eng.; JFM; RAI; USN); Venushår (Den.; POR); Venus Maidenhair (Eng.; UPW; USN); Vergura Invelita (Rom.; KAB); Vrouwenhaar (Dutch; EFS; KAB); Weewilsquee (Shawnee; AUS); Zhu Zong Cao (Pin.; DAA).

**Activities:**

Abortifacient (f; EB47:184); Analgesic (f; NPM); Anthelmintic (f; LMP); Antibilious (f; DEP); Antifertility (f1; RAI); Antioxidant (f; RAI); Antiradicular (f; RAI); Antiseptic (f1; RAI); Antitussive (f; EGG; RAI); Antiviral (1; RAI); Astringent (1; BUR; HHB); Bactericide (f1; RAI); Cardioprotective (f; RAI); Contraceptive (f1; EB31:340; RAI); Decongestant (f; RAI); Demulcent (f; GMH; PH2; VAD); Deobstruent (f; BOU; DEP); Depurative (f; DAA; EB47:184); Detoxicant (f; RAI); Diaphoretic (f; DAA; EGG); Discutient (f; DEP); Diuretic (f; BOW; DAA; DEP; NAD); Emetic (f; DAA; LMP); Emmenagogue (f; BUR; DEP; HHB; KAB; NAD); Emollient (f; BOU; DAA; EGG; UPW); Expectorant (f; BOW; BUR; DAA; DEP; NAD; PH2; UPW); Febrifuge (f; DAA; DEP; LMP); Hemostat (f; EB31:340); Hepatoprotective (f; RAI); Hypocholesterolemic (f1 RAI); Hypoglycemic (1; HH2; RAI); Hypotensive (f1; RAI); Laxative (f; DAA); Mucolytic (f; VAD); Pectoral (f; BUR; DAA; DEP; GMH; PH2; UPW); Propecic (f; DAA; GMH; PH2); Refrigerant (f; BUR); Resolvent (f; DEP); Secretolytic (f; RAI); Stimulant (f; DAA; EFS; GMH); Sudorific (f; DAA); Tonic (f; BUR; DAA; UPW).

**Indications:**

Alopecia (f; BOW; DAA; RAI); Amenorrhea (f; AUS; KAB; EB50:40); Asthma (f; AUS; DAA; GMH); *Bacillus* (1; RAI); Bacteria (f1; RAI); Bilioussness (f; DEP); Bleeding (f; MAX); Boils (f; NPM); Bronchosis (f; HH2; KAB; PH2; EB48:146); Cancer (f; DEP); Cancer, liver (f; UPW); Cancer, spleen (f; UPW); Cancer, uterus (f; UPW); *Candida* (f1; NWO; RAI); Cardiopathy (f; RAI); Catarrh (f; DAA; DEP; GMH); Cephalosis (f; DAA); Cerebrosis (f; AUS); Chest Colds (f; UPW); Childbirth (f; DAA; EB50:40; JFM); Chills (f; DAA; EB28:327); Colds (f; DAA; EB48:146; KAB; MKK; UPW; WO3); Colic (f; KAB); Congestion (f; RAI); Constipation (f; DAA); Consumption (f; AUS); Coughs (f; AUS; EB48:146; EGG; GMH; HH2; NAD; NPM; PH2; RAI); Cystosis (f; DAA); Dandruff (f; BOW; NWO); Diabetes (f1; HH2; RAI); Dropsy (f; DAA); Dysmenorrhea (f; AUS; DAA; HH2; NPM; PH2); Dysuria (f; EGG; RAI); Eczema (f; RAI); *Escherichia* (1; RAI); Fever (f; BUR; DAA; DEP; LMP); Flu (f; RAI); Fungus (f; NWO); Gallstones (f; RAI); Gastrosis (f; RAI); Gingivosis (f; VAD); Gout (f; GMH); Gravel (f; AUS; DAA; GMH); Gray Hair (f; PH2); Headache (f; NPM; WO3); Head Colds (f; DAA; KAB; UPW); Heartburn (f; RAI); Hepatosis (f; BOU; DAA; JFM; RAI; UPW); High Blood Pressure (f1; RAI); High Cholesterol (f1; RAI); Hydrophobia (f1; RAI); Hyperglycemia (1; HH2; RAI); Impetigo (f; LMP); Infection (f1; BUR; HHB; NWO; RAI); Infertility (f; NWO); Insanity (f; DEM); Jaundice (f; AUS; EGG; GMH; RAI); Kidney Stones (f; AUS; RAI); Laryngosis (f; RAI); Lice (f; NWO); Metrorrhagia (f; EB31:340); Mucososis (f; RAI); Mycosis (f; NWO); Nephrosis (f; AUS; GMH); Pain (f; NPM; PH2); Periodontosis (f; VAD); Pertussis (f; HH2; PH2); Pharyngosis (f; BOW; RAI; VAD); Placenta (f; EB50:40); Pleurisy (f; AUS; GMH; RAI); *Pseudomonas* (1; RAI); Pulmonosis (f; DAA; DEP; EFS; GMH; KAB); Respirosis (f; DAA; HHB; PH2); Rheumatism (f; DEM); Rhinosis (f; DAA; HH2); Sclerosis (f; DAA; JLH); Snake Bites (f; DAA; LMP); Sores (f; EB25:245); Sore Throat (f; KAB; RAI); Splenosis (f; BOU; DAW; UPW); *Staphylococcus* (1; RAI); Stings (f; DEM); Stomatosis (f1; RAI; VAD); Stones (f; AUS; DAA; JFM); Swelling (f; GMH); Throat (f; KAB); Uterosis (f; UPW); Vaginitis (f; VAD); Viruses (f1; RAI); Worms (f; LMP); Wounds (f; EB43:480); Yeast (f; NWO).

**Dosages:**

FNFF = ! Steep 1 spoon powder/cup 10–20 min, take 1 cup after each meal (VAD); 1 oz herb/pint boiling water, sweetened (GMH); 1.5 g herb/cup tea (HH2; PH2); 20–30 grains (DEP); expressed juice with pepper for fever (NAD); 50–100 drops tincture (1:10) 1–3×/day (VAD); 30–50 drops fluid extract (1:1) 2–3×/day (VAD). British Galway Islanders dry leaves

as a tea substitute (AUS). “In the Arran Islands ... to form soft drinks” (FAC). Decocted with *Dryopteris normalis* and drunk 4 mornings following intercourse as contraceptive (EB31:340).

- Africans inhale smoke from burning leaves for head and chest colds (UPW).
- Argentinians take decoction for amenorrhea, childbirth, dyspepsia, hepatitis, rheumatism, and sore throat (JFM).
- Arizona Navajo use the plant to treat bee and centipede stings and mental problems (AUS).
- Asian Indians use for boils, bronchitis, colds, diabetes, eczema, wounds, and to stimulate menstruation (RAI).
- Brazilians use for alopecia, amenorrhea, anorexia, asthma, bronchitis, childbirth, cough, dry throat, dysmenorrhea, dyspepsia, flu, laryngitis, mucositis, nephrosis, respirosis, and rheumatism (RAI).
- Californian Mahuna take plant for rheumatism (AUS).
- Chepangs in Nepal apply to boils (NPM).
- Cubans use as emmenagogue and pectoral (JTR).
- French use in “sirop de capillaire” for bronchitis, cough, and throat ailments (KAB).
- Kayenta Navajo used the plant in lotions for bee and centipede stings and they also smoked the plant for insanity (HAD).
- Mexicans use for alopecia, amenorrhea, birth control, bronchitis, colic, constipation, cystitis, dysmenorrhea, gastritis, hepatitis, kidney stone, metrorrhagia, and respirosis (KAB; MAX; RAI).
- Nepalese apply the leaves topically to the head for headache, to the chest for chest ache (NPM).
- Peruvians suggest its use as antirheumatic, antitussive, aperitive, diaphoretic, diuretic, emmenagogue, emollient, expectorant, insectifuge, and pectoral, for alopecia, asthma, biliary stones, calculus, catarrh, colds, congestion, cough, dysmenorrhea, dysuria, gallstones, gastritis, heartburn, hydrophobia, hyperacidity, jaundice, sore throat, sour stomach, and stomachache (EGG; RAI).
- Punjabi apply leaves with pepper a/o honey for catarrh and fever (KAB).
- Spaniards, considering the plant antiinflammatory, bechic, expectorant, and mucolytic, suggest it for asthma, bronchitis, catarrh, cystitis, dermatitis, gingivitis, periodontitis, stomatitis, and vulvo-vaginal dystrophy and inflammation (VAD).
- Suto smoke the leaves for head and chest colds (KAB).
- Yucatanese take decoction (8–10 g plant/300 cc water) 3–4×/day for amenorrhea and urinary stones (JFM).

#### Downsides:

Not covered (AHP). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). Not for use during pregnancy (PH2). As of July 2007, the FDA Poisonous Plant Database listed five titles alluding to toxicity of this species.

#### Extracts:

LD50 (frond extract) 82.5 mg/kg ipr mus (HH2). Alcoholic extract hypoglycemic (10–15 mg/100 ml) in dogs at 10 mg/kg (route not specified).

**SORRAPILLA (*Adiantum latifolium* Lam.) ++****PTERIDACEAE****A****Notes:**

*Adiantum latifolium* is an accepted name and widely used. In Amazonian Peru in the “devil’s fields” formed by ants beneath stands of *Duroia hirsuta* (Rubiaceae), the ants clip all the plants except this *Adiantum*, which they allow to grow for some reason. All other plants are clipped, which creates an eerie openness beneath these small trees that grow in colonies. (Robbin Moran, pers. comm., Aug. 29, 2007).

**Common Names:**

Sano Sano (Peru; MD2); Shakushia (Amahuaca; MD2); Shebebe (Shipibo/Conibo; MD2); Sorrapilla (Peru; MD2); Suelda con Suelda (Peru; MD2); Yarinilla (Peru; MD2).

**Activities:**

Contraceptive (f; MD2); Hemostat (f; MD2).

**Indications:**

Bleeding (f; MD2); Childbirth (f; MD2); Infection (f; MD2); Metrorrhagia (f; MD2); Vaginitis (f; MD2); Wounds (f; MD2).

**Dosages:**

FNFF = ?

- Madre de Dios Peruvians apply mashed leaves to wounds to stop bleeding, taking the plant decoction for bleeding after childbirth (MD2).
- Madre de Dios Peruvians use in steam baths for vaginal infections (MD2).
- Peruvians suggest root decoction as contraceptive (MD2).

**BLACK STICK (*Adiantum tenerum* Sw.) ++****PTERIDACEAE****Illustrations:**

p 108 (AAB)

**Synonyms:**

*Adiantum tenerum* var. *farleyense* (T. Moore) André; fide (USN).

**Notes:**

Plants said to have adorned ancient Mayan ceremonial altars (AAB).

**Common Names:**

Black Stick (Bel.; Eng.; AAB; AUS); Brittle Maidenhair (Eng.; USN); Capilaria de México (Mex.; JTR); Culantrillo de México (Cuba; JTR); Culantrillo de Pozo (Cuba; JTR); Helecho (Bel.; Sp.; AAB); Maidenhair Fern (Bel.; Eng.; AAB); Palo Negro (Bel.; Sp.; AAB; AUS); Roc-Che-Cwan (Bel.; Eng.; Maya; AUS). (Nscn).

**Activities:**

Detoxicant (f; AAB); Emmenagogue (f; AAB; DAW; MAX; UPH); Lactagogue (f; AAB); Litholytic (f; JTR); Nephrotonic (f; AAB); Parasiticide (f; AAB); Pectoral (f; JTR); Sudorific (f; JTR).



**Indications:**

Alcoholism (f; AAB); Bronchosis (f; JTR); Calculus (f; JTR); Catarrh (f; JTR); Colic (f; JTR); Coughs (f; AAB); Dandruff (f; AAB); Diarrhea (f; JTR); Hepatosis (f; JTR); Inflammation (f; JTR); Mucososis (f; JTR); Nephrosis (f; AAB); Parasites (f; AAB); Stones (f; JTR).

**Dosages:**

FNFF = !

- Argentinians and Cubans recommend the leaf tea as an emmenagogue (AAB).
- Belizeans apply macerated leaves to scalp for dandruff (AAB).
- Belizeans sip infusion (3 stems steeped in 3 cups boiling water for 20 min) as a detoxicant and expectorant for alcoholics, and as lactagogue, nephrotonic, and parasiticide (AAB).
- Mexicans use leaf tea for colic and diarrhea (JTR).

**CENTURY PLANT (*Agave americana* L.) ++****AGAVACEAE****Illustrations:**

fig 3, p 7 (MPG)

**Synonyms:**

*Agave altissima* Zumagl; *A. expansa* Jacobi; *A. fuerstenbergii* Jacobi; *A. milleri* Haw.; *A. ornata* Jacobi; *A. picta* Salm-Dyck; *A. ramosa* Hoech.; *A. rasconensis* Trel. ex Standl.; *A. spectabilis* Salisb.; *A. variegata* Hort. ex Steud.; *A. vera-cruz* Drum; *A. virginica* Mill.; *A. zonata* Trel.; fide (EGG; HHB; MPG; USN).

**Notes:**

The names and identities of the *Agaves* are confused and confusing. After spending two days with the literature, I still wasn't sure from whence came my "tequila." Leaves of *A. sisalana* may attain 1.5 m long, and 10 cm wide, those of *A. americana* are larger, attaining 2 m with scapes up to 13 m (AHL). Though native to Mexico, this species has made itself at home elsewhere, e.g., in India and in the Andes, reaching to 3,700 m above sea level. The leaves reportedly contain an acrid EO which renders plaster and wallpaper termite proof (WO2). Flowers pollinated by nectar-feeding bats and hummingbirds (AUS).

**Common Names:**

Agav (Tur.; EFS); Agave Americano (It.; EFS); Agave d'Amérique (Fr.; EFS); Agave Pit'a (Peru; ROE); American Agave (Eng.; USN); American Aloe (Eng.; HHB; USN); American Sisal (Eng.; EFS); Amerikaanse Sisal (Dutch; EFS); Amerikanische Agave (Ger.; EFS; USN); Anai Katrazhai (Tam.; WO2); Anarash (Ben.; WO2); Annaikathalai (Tam.; WO2); Badukattalenaru (Kan.; WO2); Banskeora (Hindi; WO2); Bara Kanwar (Hindi; WO2); Bhutalle (Kan.; WO2); Bilati (Ben.; WO2); Bilatipat (Ben.; WO2); Birhot Okumari (Oriya; WO2); Cabuya (Ecu.; MPG); Cabuya Negro (Ecu.; MPG); Century Plant (Eng.; USN); Chahuar (Ecu.; MPG); Chuchau (Peru; EGG); Chunta P'ajra (Bol.; Que.; DLZ); Ckara (Peru; EGG); Fiques (Peru; ROE); Garingboom (Afr.; Dutch; EFS; USN); Hathi Sengar (Hindi; WO2); Henequén (Sp.; EFS); Hundertyährige Aloe (Ger.; HHB); Jangli Kunvara (Guj.; WO2); Jungli Anarash (Ben.; WO2); Kalakkantalu (Sanskrit; WO2); Kalanaru (Kan.; WO2); Kantala (Sanskrit; EFS; WO2); Kellupancarita (Peru; EGG); Kithanara (Tel.; WO2); Koyan (Ben.; WO2); Lu Sung Ma (China; EFS); Maguei-Pflanze (Ger.; HHB); Maguey (Cuba; Dor.; Peru; Sp.; AHL; EFS; ROE; USN); Maguey Mexicano (Peru; EGG); Mara (Peru; EGG); México (Peru; EGG); Ocke Pakcpa

(Peru; EGG); Ojepajpa (Peru; EGG); Packpa (Peru; EGG); Pacpa (Peru; EGG); Pajpa (Peru; EGG); Panam Kattazha (Mal.; WO2); Pappa (Peru; EGG); Penca (Peru; EGG); Penca Azul (Peru; EGG); Penco (Ecu.; MPG); Penco Negro (Ecu.; MPG); Pinca (Peru; EGG); Pita (Peru; Sp.; EFS); Pita Comun (Sp.; USN); Pite (Fr.; USN); Pite d'Amérique (Fr.; JAD); Pitha Kalabuntha (Tam.; WO2); Pitiera (Por.; EFS); Pito (Sp.; HHB); Pitta (It.; EFS); Q'ellu Panqarita (Aym.; DLZ); Rakashima Talu (Tel.; WO2); Rakaspatta (Hindi; India; EFS; WO2); Ryfzetsu Ran (Japan; TAN); Spreading Century Plant (Eng.; JAD); Wilayti Kaitulu (Pun.; WO2); Wild Century Plant (Eng.; JAD); Yana Chahuar (Ecu.; MPG). (Nscn; American entries diacritically prepared).

#### Activities:

ACE-Inhibitor (1; X10624863); Allergenic (1; ROE); Antiedemic (f1; MPG; X9225599); Antihypertensive (1; X10624863); Antiinflammatory (f1; MPG; X9225599); Antileukemic (1; X10865469); Antirheumatic (f; MPG); Antiseptic (f; MPG); Bactericide (1; MPG); Cicatrizant (f; DAW); Cytotoxic (1; X10865469); Depurative (f; DAW; EFS); Dermatitigenic (1; ROE; X11109152); Digestive (f; EGG); Diuretic (f; EFS); Emmenagogue (f; ROE; WO2); Febrifuge (f; WO2); Gram(+)-icide (1; MPG); Gram(-)-icide (1; MPG); Hemolytic (1; ROE); Insecticide (f; ROE); Larvicide (1; X3249563); Laxative (f; MPG; WO2); Molluscicide (1; X6736709); Mosquitocide (1; X3249563); Narcotic (f; ROE); Piscicide (1; ROE); Proteolytic (1; WO3); Uteroactive (1; X2640501); Vulnerary (f; EGG).

#### Indications:

Amenorrhea (f; ROE); Appendicitis (f; EGG); Arthrosis (f; MPG); Ascites (f; EB24:2); Bacteria (1; MPG); Bruise (f; EB31:356); Burns (f; DLZ); Cancer (f1; JLH; ROE; WO2; X10865469); Catarrh (f; DLZ); Colic (f; ROE); Conjunctivitis (f; EGG); Constipation (f; MPG; WO2); Diarrhea (f; ROE); Dislocation (f; EGG); Dropsy (f; ROE); Dysentery (f; DAW; WO2); Edema (f1; MPG; X9225599); Fever (f; WO2); Gastrosis (f; EGG); Gonorrhoea (f; EGG; ROE); Headache (f; EGG); Hepatitis (f; EGG); Hernia (f; EGG); High Blood Pressure (1; X10624863); Infection (f1; MPG); Inflammation (f1; MPG; X9225599); Jaundice (f; EGG); Leukemia (f1; JLH; X10865469); Malaria (f; WO2); Nephrosis (f; DLZ); Pharyngitis (f; ROE); Rabies (f; EGG); Rheumatism (f; MPG); Scrofula (f; WO2); Sores (f; EGG); Sore Throat (f; ROE); Sprains (f; DAW); Syphilis (f; EFS); Tenia (f; ROE); Toothache (f; ROE); Tuberculosis (f; MPG); Tumors (f; JLH); VD (f; EGG); Wounds (f; DAW; EGG).

#### Dosages:

FNFF = !! Important food for Apache, Mohave, Paiute, Papago, Ute, and Yuma Indians (DEM). Kickapoo Indians eat asparagus-like "quiote" young flower stalks baked on hot stones. Bulbous leaf bases also eaten after baking. The sap "aguamiel" that exudes when the stem is cut is fermented to make the Mexican national drink, pulque. Further distillation leads to Mescal (WO2), maybe even tequila, as in *A. tequilana* (HHB). Peruvians make chicha and vinegar (EFS; EGG; FAC; HHB; TAN). Andeans dissolve the sap in water for use as a natural pesticide on potatoes against "polilla" and "rancha" (EGG). Ecuadorian aborigines used the superficial roots mashed in water as one of the first shampoos, and antecedent of modern shampoos, quips Gupta (MPG).

- Andeans treat cancerous inflammations and sores with the sap (ROE).
- Andeans use leaf tea with honey as a wash for conjunctivitis (ROE).
- Asian Indians report the core of the plant is used for malaria and other fevers (WO2).
- Bolivians inhale the smoke of burning scapes for catarrh (DLZ).
- Bolivians use the jelly with honey for bruises, gonorrhoea, internal tumors, nephritis, rheumatism, and tuberculosis (DLZ).
- Latinos boil a tablespoon of mashed leaf in ½ liter water 5–10 min and take it alone or sweetened for arthritis or tuberculosis (MPG).

- Peruvians apply the sap to indolent ulcers and sores (EGG).
- Peruvians plaster root decoction with flour or roasted leaves to dislocations and hernias (EGG).
- Peruvians take the decoction with aloe and wormwood for appendicitis (EGG).
- Peruvians take the leaf decoction for conjunctivitis (EGG).
- Peruvians take the sap for hydrophobia (EGG).
- Peruvians use the roots for headache, and mashed as lather for hair health (EGG).
- Quechuans used the sap “chahuarmishqui” as antiinflammatory, antirheumatic, and antiseptic (MPG).

**Downsides:**

Overdoses may cause diarrhea and gastritis (MPG). The juice of the plant is allergenic (ROE). Sap can cause contact dermatitis (X11109152). As of July 2007, the FDA Poisonous Plant Database listed 33 titles alluding to toxicity of this species.

**Extracts:**

The saponin hecogenin-tetraglycoside is cytotoxic against HL-60 human promyelocytic leukemia cells (IC<sub>50</sub> = 4.3 µg/ml (X10865469). Extracts antihypertensive and antiinflammatory (X10624863; X9225599). Crude extracts contain two utero-active compounds (X2640501). Extract larvicidal for *Aedes fluviatilis* at 100 ppm (X3249563).

**BILLYGOAT WEED (*Ageratum conyzoides* L.) +  
ASTERACEAE**

**Illustrations:**

p 77 (NPM); pl 132A (DAG); pl 518C (KAB)

**Notes:**

I was working on this write-up for billygoat weed when *Newsweek* (Jan. 17, 2005) ran an issue covering the future of nutrigenomics (what I naively term “gene friendly food pharmacy” since our genes have millions of years experience with many of these phytochemicals). That same day I was visited by Frederic Abramson, director of Alpha Genomics. Both of us were visited telephonically by the senior author of the article, Anne Underwood. So what? My database increasingly enters many enzyme inhibitors, not just alpha-reductase-inhibitors, beta-amylase inhibitors, COX2-Is, etc., and scores the plants possessing these for (1) edibility, (2) safety, and (3) efficacy in hundreds of activities and indications. Abramson’s database lists which variants in the human genome are involved with those enzymes and their inhibitors. The potential synergies of a potential mix of his and my databases may indeed lead to a computer generated list of foods tailored to the individual human genome. I mention that here because, in compiling this, I first went through only my Native American sources for American folk uses for the herb. I had quite a sizable list. Then I took a quick look into the Asian sources, and saw a lot of uses I had not seen in my American sources. Is this another reflection of genomic differences between Caucasians, Native Americans, Asian Indians, and Africans. I think so. The pharmaceutical firms treat all of us as average when none of us are.

Used as a diuretic for cystitis under the names “diabetes weed” and “gravel weed,” the weed was listed in the U.S. National Standard Dispensatory in 1905 (JFM).

**Common Names:**

Agerato (Ma.; JFM); Aiguille (Guad.; AVP); Angale No (Gurung; NPM); Appa Gras (Eng.; NPM); Azier Français de Devez (Fr. Guiana; AVP); Azier François (Fr.; USN); Bastard Agri-

mony (Eng.; NPM); Bhera Jhar (Nepal; NPM); Billygoat Weed (Eng.; USN); Boke (Nepal; NPM); Bouton (Fr.; USN); Bratar (Tamang; NPM); Cacália Mentrasto (Brazil; MPG); Catinga de Barrão (Brazil; MPB; MPG); Catinga de Bode (Brazil; MPB); Celestina (Ma.; JFM); Celestina Azul (Cuba; Ma.; AVP; JFM; JTR); Celestina Blanca (Cuba; Ma.; JFM; JTR); Chuva (Col.; Ma.; Sp.; AVP; JFM; USN); Curía (Brazil; MPG); Dalidare (Gurung; NPM); Diabetes Weed (Eng.; JFM); Erva de Santa Lucía (Brazil; MPG); Erva de São João (Brazil; EGG; MPB; RAR); Erva de São José (Brazil; MPB); Ganamane (Nepal; NPM); Ganaune Jhar (Nepal; NPM); Gande (Gurung; Magar; Nepal; NPM); Ganki (Mooshar; NPM); Ganne Jhar (Nepal; NPM); Goat Weed (Eng.; NPM; USN; WOI); Gravel Weed (Eng.; JFM); Gyaine (Raute; NPM); Hanuman (Nepal; NPM); Herbe a Bouc (Fwi.; JFM; JTM); Huarmi (Peru; EGG; SOU; USN); Huarmi Huarmi (Peru; EGG; RAR; SOU); Indringer Ageratum (Afrikaan; USN); Kegucha Ghyan (Newari; NPM); Manrubio (Ma.; JFM); Manthani Mran (Tamang; NPM); Mari Preta (Brazil; MPB); Mastruco (Brazil; Ma.; JFM; JTR); Mejorana (Ma.; JFM); Mentrasto (Brazil; Pr.; AVP; MPB; MPG; USN); Mondrasto (Ma.; Pr.; JFM; JTR); Namche Jhar (Magar; NPM); Nougou (Afr.; AVP); Petit Pain Doux (Guad.; AVP); Picão-Roxo (Brazil; USN); Ponge Jhar (Magar; NPM); Raunde (Chepang; NPM); Raunja (Chepang; NPM); Raunne (Nepal; NPM); Retentina (Col.; AVP); Rompesaragüelo (Ven.; JLH); Rompe Zaragüey (Dor.; AHL); Sang Jhar (Chepang; NPM); Santa Lucia (Ecu.; DAG); Seto Raunne (Nepal; NPM); Silliwa (Aym.; DLZ); Supiqewa (Que.; DLZ); Teatina (Peru; RAR); Thangawinowa (Tamang; NPM); Thang Mran (Tamang; NPM); Tirino (Gurung; NPM); Warmi (Que.; DLZ); Whiteweed (Eng.; USN; WO2); Wild Ageratum (Eng.; JFM); Witte Hede (Ma.; JFM); Yerba de Cabro (Pr.; AVP; JTR); Yerba de Chivo (Dor.; EGG; RAR); Zèb à Pik (Creole; Haiti; VOD); Zèb à Pisé (Creole; Haiti; VOD); Zèb à Sorcier (Creole; Haiti; VOD); Zèb la Vierge (Creole; Haiti; VOD). (Nscn; American entries diacritically prepared).

### Activities:

Abortifacient (f; JFM); Allelochemic (1; X16132220); Analgesic (1; MPG; VOD); Anthelmintic (f1; VOD); Antiedemic (1; X15693721); Antiinflammatory (f12; MPG; VOD; X15693721); Antioxidant (1; X12686450); Antiseptic (f1; VOD); Antiserotogenic (1; X12686450); Antispasmodic (f1; VOD; X10685113); Astringent (f; EGG; RAR; VOD); Bactericide (f1; VOD); Cardiodepressant (1; WO3); Carminative (f; DLZ; EGG; RAR); Cyanigenic (f1; DLZ); Diuretic (f; DLZ; EGG; RAR); Emmenagogue (f; EGG; RAR); Febrifuge (f; EGG; RAR); Fungicide (f1; VOD); Gastroprotective (1; X12686450); Hemostat (f1; MPG; VOD; WO3); Insecticide (1; MPG; X11124374; X17469080); Juvabional (f1; MPB); Larvicide (1; X16253435); Litholytic (f; KAB); Molluscicide (1; WO3); Mosquitocide (1; WO3; X16253435); Myorelaxant (1; MPG; X10685113); Nematocide (1; MPG); Pediculicide (f; NPM); Stimulant (f; DLZ; EHH; RAR); Tonic (f; DLZ); Vulnerary (f1; MPB; X16226414).

### Indications:

Ague (f; KAB); Amenorrhea (f; EGG; RAR); Arthrosis (f12; MPG); Atony (f; JTR); Bacteria (1; VOD); Beriberi (f; RAR); Bleeding (f1; MPG; VOD; WO3); Boils (f; NPM); Bruise (f; NPM); Catarrh (f; EGG; RAR); Childbirth (f; JFM); Colds (f; NPM; VOD); Colic (f; MPB; VOD); Coughs (f; MPG; NPM); Cystosis (f; EGG; JFM; RAR); Dermatitis (f; JFM); Diabetes (f; JFM); Diarrhea (f; VOD); Dislocation (f; NPM); Dysentery (f; KAB); Dysuria (f; JFM); Ecchymosis (f; KAB); Edema (1; X15693721); Enterosis (f; JFM; MPB; JTR); Epilepsy (f; VOD); Fever (f; EGG; RAR; VOD); Fungus (1; VOD); Gas (f; DLZ; EGG; JFM; RAR); Gastrosis (f1; EGG; RAR; JTR; X12686450); Gonorrhoea (f; MPB); Gravel (f; JFM); Hemorrhoids (f; WO3); Infection (f1; VOD); Inflammation (f12; MPG; VOD; X15693721); Itch (f; JFM); Leprosy (f; NPM); Mange (f; JFM); Mycosis (1; VOD); Ophthalmia (f; KAB); Pain (f1; EGG; MPG; RAR; VOD); Pediculosis (f; NPM); Proctosis (f; KAB); Prolapse (f; KAB); Pulmonosis (f; MPG); Rheumatism (f12; EGG; MPG; RAR); Scabies (f; NPM); Schistosoma (1; MPG); Snake Bites (f; NPM); Sore Throat (f; JFM); Spasms (f1; VOD);

X10685113); *Staphylococcus* (1; MPB; VOD); Stomachache (f; EGG; RAR); Stones (f; KAB); Strangury (f; JFM); Swelling (f; WO3); Tetanus (f; KAB; JFM); Uterosis (f; MPB); VD (f; MPB); Worms (f1; VOD); Wounds (f1; MPB; X16226414).

### Dosages:

FNFF = X.

- Asian Indians apply a buttered leaf paste to swollen hemorrhoids (WO3).
- Asian Indians report that the petroleum ether extract considerably suppresses mosquito populations (*Culex*) (WO3).
- Asian Indians suggest the leaves with salt as a vulnerary on wounds to prevent tetanus (WO2).
- Bolivians a/o Peruvians take leaf decoction as carminative, diuretic, stimulant, and tonic (DLZ; SOU).
- Brazilians consider the plant analgesic, antispasmodic, febrifuge, and tonic, using it for amenorrhea, arthrosis, colic, rheumatism, and uterosis (MPG).
- Cubans use as febrifuge, sudorific and for atony and “pneumatosis” of the digestive tube (JTR).
- Dominicans consider the stem decoction antidiarrheal, the leaf tea as antiinflammatory (VOD).
- Haitians add a pinch of salt to freshly squeezed plant juice and use 2–3 drops as nose drops to control epilepsy (VOD).
- Haitians apply the antiseptic plant juice to dermatosis (VOD).
- Haitians use leaf decoction for bleeding, cold, colic, fever, and spasm (VOD).
- Madagascans use leaves and stems against leprosy (KAB).
- Nepalese apply flower head juice to scabies, and paste them on rheumatism (NPM).
- Nepalese apply plant juice to bruises, cuts, lice, and wounds (NPM).
- Nepalese paste the leaves on thorns to facilitate their removal (NPM).
- Nepalese powder the dried plant onto wounds and ruptures caused by leprosy (NPM).
- Nepalese rub crushed leaves on head to exterminate lice (NPM).
- Peruvians take the tea as carminative, emmenagogue, and stimulant (EGG).
- Surinamese take the decoction for cold and sore throat (JFM).
- Trinidadans take the tea (believed abortifacient) for cough, cystitis, and flu, using the root tea for diabetes (JFM).
- Venezuelans poultice the leaves onto tumors (JLH).
- Venezuelans rub plant juice, in alcohol, onto rheumatic areas (JFM).

### Downsides:

Cyanogenic herb toxic to grazing animals (DLZ). Contains pyrrolizidine alkaloids (MPB). As of July 2007, the FDA Poisonous Plant Database listed eight titles alluding to toxicity of this species.

### Extracts:

The plant has clinically demonstrated efficacy in arthrosis, diminishing pain and inflammation within a week (MPG). Ethanol extracts protected gastric lesions by 80.59% at 500 mg/kg and 89.33% at 750 mg/kg (X12686450). Extract larvicidal for *Aedes aegypti*, LC50 = 148 µg/l (X16253435). Leaf EO insecticidal for *Sitophilus zeamais* (X11124374).

**GOLDEN TRUMPET (*Allamanda cathartica* L.) +****APOCYNACEAE****Synonyms:**

*Allamanda cathartica* var. *hendersonii* (W. Bull ex Dombrain) L. H. Bailey & Raffill; *A. cathartica* var. *nobilis* (T. Moore) L. H. Bailey & Raffill; *A. hendersonii* W. Bull ex Dombrain; *A. nobilis* T. Moore; *Orelia grandiflora* Aubl.; fide (USN).

**Common Names:**

Alamanda (Brazil; MPB; USN); Alamanda-Amarela (Brazil; USN); Alamanda de Flora Grande (Brazil; MPB); Alamande (Ger.; Guy.; KAB; USN); Allamandagide (Kan.; WO2); Allemandatheega (Tel.; WO2); Amanda (Sp.; JFM); Araba (Mun.; KAB); Arasinhu (Kan.; KAB); Arba (Mun.; WO2); Bejuco de San Jose (Cr.; Sp.; JFM); Buttercups (Eng.; JFM); Campana (Sp.; JFM); Campana Anarilla (Sp.; AVP); Campanitas Amarillas (Bel.; BNA); Canarias (Sp.; AVP); Canario (Pr.; Sp.; JFM); Carolina (Brazil; USN); Cautiva (Sp.; JFM); Cipo de Leite (Por.; GMJ); Copa de Mantequilla (Dor.; AHL); Copa de Oro (Sp.; USN); Copo de Oro (Col.; Sp.; JFM); Datkassey (Palikur; GMJ); Dedal de Dama (Brazil; MPB; USN); Dumári Raiüwa (Garifuna; IED); Flor de Barbero (Cuba; RyM); Flor de Muerto (Sp.; Ven.; AVP; JFM); Golden Bell (Eng.; DAV); Golden Trumpet (Eng.; AVP; USN; WO2); Haladilu (Kan.; WO2); Harkakra (Ben.; WO2); Huaitasisa (Peru; SOU); Jaharisontakka (Bom.; KAB); Jalapa (Cr.; JFM); Jalapa Falsa (Sp.; JFM); Jasmin d'Amarille (Fr.; KAB); Jazmín Amarillo (Sp.; Ven.; AVP; JFM); Jazmín Falcón (Sp.; Ven.; AVP; JFM); Ka'ilewki (Wayapi; GMJ); Kanangani (Kon.; KAB); Kolaambi (Mal.; WO2); Lian B Lait (Guad.; AVP); Mala Suegra (Cuba; SOU); Mantequilla (Dor.; AHL; AVP); Orélia (Brazil; MPB); Orélie (Creole; Guy.; AVP; GMJ); Orélie Cathartique (Guad.; Haiti; AVP); Orélie de la Guyane (Guy.; KAB); Pilakaner (Bom.; KAB); Pivlikanher (Bom.; KAB); Quatro Patacas (Brazil; Por.; AVP; MPB); Santa Maria (Brazil; MPB); Tasiyasiy (Wayapi; GMJ); Tropical Buttercup (Eng.; DAV); Tumi Lalahka (Ulwa; ULW); Wild Senna (Sp.; JFM); Wilkens Bitá (Ma.; JFM); Yellow Alamanda (Eng.; JFM); Yellow Bell (Eng.; AVP).

**Activities:**

Antidermatophytic (1; X12112301); Antileukemic (1; FNF); Antiseptic (1; X12112301); Anti-tussive (f; GMJ); Bactericide (1; WO2); Emetic (f; JFM; ULW); Febrifuge (f; GMJ); Fungicide (1; X12112301); Helminthicide (f; FNF); Hydragogue (f; KAB); Hypotensive (1; WO2); Laxative (f; JFM); Nematicide (1; X10817223); Purgative (f; ULW); Toxic (f; SOU).

**Indications:**

Anxiety (f; RVM); Ascites (f; KAB); Bacteria (1; WO2); Cancer (1; FNF; WO2); Carcinoma (nasopharynx) (1; WO2); Colic (f; WO2); Constipation (f; JFM); Coughs (f; GMJ); Dermatophyte (1; X12112301); Dermatitis (1; X12112301); Fever (f; GMJ); Fungus (1; X12112301); High Blood Pressure (1; WO2); Infection (1; X12112301); Jaundice (f; JFM; WO3); Leukemia (1; FNF); Malaria (f; JFM); Mycosis (1; X12112301); Nematode (1; X10817223); Ringworm (1; WO3); Scabies (f; FNF); Snake Bite (f1; KAB; X11025161); Splenomegaly (f; JFM); Splenosis (f; JFM); Worms (f; FNF); Wounds (1; X16597335).

**Dosages:**

FNFF = X.

- Palikur wash heads with decoction for anxiety (RVM).
- Surinamese decoct chipped root (20 cm segment) with 2 leaves *Cassia alata* for spleen problems (JFM).
- Surinamese decoct chipped root (20 cm segment) in 3 liter water for jaundice and splenomegaly resulting from malaria (JFM).
- Surinamese decoct root (20 cm segment) with 30 cm segment of *Aristolochia* root and take 3 times for malaria (JFM).
- Surinamese infuse 20 leaves/liter water as emetic and laxative (JFM).
- Wayapi rub down the body with solar bark tea for fever (GMJ).

**Downsides:**

Large doses may cause diarrhea and nausea (WO2). As of July 2007, the FDA Poisonous Plant Database listed 24 titles alluding to toxicity of this species.

**Extracts:**

Plumieride exhibits a non-cytotoxic nature against a P(388) mouse leukaemia cell line (X12112301). Leaf extract promotes wound healing (X16597335). Plant extract exhibited moderate neutralization against hemorrhagic effects of *Bothrops atrox* venom (X11025161).

## LEMON VERBENA (*Aloysia citriodora* Palau) ++

### VERBENACEAE

**Synonyms:**

*Aloysia citriodora* Ortega ex Pers.; *A. sleumeri* Moldenke; *A. triphylla* (L'Her.) Britt.; *Lippia citriodora* (Lam.) Kunth; *L. triphylla* (L'Hér.) Kuntze; *Verbena citriodora* Cav.; *V. triphylla* L'Hér.; *Zapania citriodora* Lam.; fide (MPG; RDF3:19; USN).

**Common Names:**

Aloysis (Ger.; RDF3:19); Bela Luiza (Por.; EFS); Belle Louise (Por.; RDF3:19); Capim Cidrô (Por.; RDF3:19); Cedrina (It.; EFS); Cedrón (Arg.; Sp.; JFM; MPG; USN); Cedrón de Paraguay (Par.; RDF3:19); Cedrón en Rama (Sp.; RDF3:19); Cedrón Hembra (Sp.; RDF3:19); Cetrina (It.; EFS); Cidrilha (Por.; RDF3:19); Cidrinha (Arg.; Por.; MPG; RDF3:19); Cidrô (Por.; RDF3:19); Cidron (Sp.; JFM); Cidrô Pessegueiro (Por.; RDF3:19); Cidrozinho (Por.; RDF3:19); Citronelle (Fr.; BOU; EFS; JFM); Citronenkraut (Ger.; EFS); Demon Verbena (Arg.; MPG); Diapalma (His.; AHL); Doce Lima (Por.; EFS); Echte Verbenenkraut (Ger.; EFS); Echte Verbene (Ger.; RDF3:19); Echt Verbenkruid (Dutch; EFS); Erba Luigia (It.; EFS); Erva Cidreira (Por.; RDF3:19); Herba Cidreira (Arg.; MPG); Herba Luisa (Sp.; JFM); Herb Louisa (Eng.; BOU; EFS); Hierba de la Princesa (Sp.; RDF3:19); Hierba Luisa (Arg.; MPG); Lemongrass Verbena (Eng.; RDF3:19); Lemon-Scented Verbena (Eng.; Scn.; AH2; CR2; EFS); Lemon Verbena (Eng.; Scn.; AH2; BOU; CR2; USN); Limonete (Por.; EFS); Lipia (Tur.;

EFS); Lippie (Fr.; EFS); Lúcia Lima (Por.; EFS); Lucia Lime (Por.; RDF3:19); Lwiza (Arab.; BOU); Maria Luisa (Sp.; RDF3:19); Montecedron (Bol.; RDF3:19); Ouheireche (Ber.; BOU); Real Vervain (Eng.; EFS); Salvia Limao (Arg.; MPG); Sweet-Scented Verbena (Eng.; Ocn.; AH2; EFS); Té Maria Luisa (Guat.; RDF3:19); Verbena (Eng.; Ocn.; AH2); Verbena Aromatica (Sp.; JFM); Verbena de las Indias (Sp.; RDF3:19); Verbena de Olor (Spain; RDF3:19); Verbenkraut (Ger.; RDF3:19); Vervain (Eng.; EFS); Verveine (Fr.; JFM); Verveine Citronelle (Fr.; BOU; USN); Verveine Odorante (Fr.; BOU; EFS); Yerba Luisa (Cuba; Sp.; EFS; JFM; RyM); Zitronenstrauch (Ger.; USN); Zitronenverbena (Ger.; RDF3:19).

### Activities:

Acaricide (1; CRC); Analgesic (f1; RDF3:19; TAD); Anticholinergic (f; RDF3:19); Antidote (f; JFM); Antigenotoxic (1; X15294350); Antimutagenic (1; MPG); Antioxidant (1; X15294350); Antiradicular (1; X15294350); Antiseptic (1; CRC; WO2); Antispasmodic (f1; BOU; CRC; JFM; PH2; PHR; RDF3:19); Antiulcer (1; X12752733); Anxiolytic (1; RDF3:19); Aphicide (1; CRC); Bactericide (1; CRC; MPG; X12752733); Cardiotoxic (f; RDF3:19); Carminative (f; BOU; CRC; SKJ; WO2); Digestive (f1; CRC; EFS; HHB; RDF3:19); Diuretic (f1; RDF3:19); Expectorant (f; CRC); Febrifuge (f; BOU; MPG; PH2; PHR); Fungicide (f; RDF3:19); Nervine (f; CRC; EFS; SKJ); Pectoral (f; CRC; EFS; JFM); Purgative (f; WBB; WO2); Sedative (f; CRC; PH2); Stimulant (f; CRC); Stomachic (f; BOU; CRC; EFS; WBB); Sudorific (f; JFM); Tranquilizer (f; CRC).

### Indications:

Acariasis (1; CRC); Agitation (f; PH2; PHR); Amenorrhea (f; RDF3:19); Anxiety (1; RDF3:19); Asthma (f; JFM); Bacteria (1; CRC; MPG; WBB; X12752733); Bites (f; JFM); Cardiopathy (f; RDF3:19); Caries (f; RDF3:19); Chills (f; PHR; PH2); Colds (f; BOU; JFM); Colic (f; JFM); Constipation (f; PHR; PH2); Cramps (f; PH2); Dermatitis (f; PHR; PH2); Diarrhea (f; AHL; CRC; TAD); Dyspepsia (f; CRC; PHR; PH2); Dyspnea (f; WO2); *Escherichia* (f; WO2); Fever (f; BOU; CRC; JFM; MPG; PH2; PHR); Fungus (1; RDF3:19); Gas (f; BOU; BRU; CRC; JFM; SKJ; WO2); *Helicobacter* (1; X12752733); Hemorrhoids (f; PHR; PH2); Hysteria (f; RDF3:19); Infection (f1; CRC; WO2; X12752733); Insomnia (f1; PHR; PH2; RDF3:19); Malaria (f; MPG); *Micrococcus* (1; WO2); *Mycobacterium* (1; WO2); Mycosis (1; RDF3:19); Nausea (f; AHL); Nervousness (f; CRC; PH2; RDF3:19); Neurotonia (f; BRU); Pain (f1; RDF3:19; TAD); Rabies (f; CRC); Respirosis (f; RDF3:19); *Salmonella* (1; MPG); Sore Throat (f; JFM); Spasms (f1; BOU; CRC; JFM; PH2; PHR; RDF3:19); *Staphylococcus* (1; WBB); Stomachache (f; AHL); Tuberculosis (1; CRC); Ulcers (1; X12752733); Varices (f; PHR; PH2).

### Dosages:

FNFF = !!! Tea widely consumed; leaves also used in home cookery, fruit salads, jellies, desserts (CRC; FAC; TAN; RDF3:19). 45 ml decoction, several times/day (CAN). 2–5 cups/day of decoction (5–29 g leaf/liter water) (PH2).

- Argentinians take the tea as antidote to animal bites and as a digestive (JFM).
- Argentinians use leaf tincture for fever and malaria (MPG).
- Bolivians take the tea for bites, cardiac oppression, hysteria, nervousness, and “susto” (RDF3:19).
- Brazilians take the tea for colds, fever, and sore throat (JFM).
- Central Americans take the leaf tea as antiasthmatic, antispasmodic, carminative, pectoral, sedative, and sudorific (JFM).
- Dominicans suggest the plant for colds, diarrhea, nausea, and stomachache (AHL).
- Latin Americans take the tea for asthma, colds, colic, diarrhea, dyspepsia, and fever (CRC).
- North Africans take the tea for colds, fever, and spasm (CRC).
- Paraguayans use as cardiotoxic and stimulant (RDF3:19).
- Yemeni use a compress of lemon verbena and lavender for dyspnea (WO2).



**Downsides:**

Class 1 (AHP). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). “Terpene-rich volatile oils are generally regarded as irritant and may cause kidney irritation during excretion,” hence renal patients should avoid (CAN). Excessive doses are best avoided during pregnancy and lactation (CAN). Contains glycosides of the relaxant sedative COX-2 inhibitor, apigenin (FNF; TRA).

**Extracts:**

EO was once used in perfumery, especially for colognes; it is still used for flavoring liqueurs (CRC). EO acaricidal and bactericidal (CRC; X12752733). A 2% emulsion of EO kills 90% of the mite, *Tetranychus telarius*, and the aphid, *Aphis gossypii* (CRC). Alcoholic leaf extract antibiotic for *E. coli*, *Mycobacterium tuberculosis*, and *Staphylococcus aureus* (antimalarial tests were negative) (CRC).

**KHAKIWEED (*Alternanthera pungens* Kunth) ++****AMARANTHACEAE****Illustrations:**

p 316 (MAX)

**Synonyms:**

*Achyranthes repens* L.; *Alternanthera achyrantha* (L.) R. Br.; *Alternanthera repens* (L.) Link; *Illecebrum achyrantha* L.; fide (AH2; MPG; USN).

**Common Names:**

Abéné Mulo (Ivo.; UPW); Achawal Kachu (Arg.; MPG); Anku Pichana (Bol.; Que.; DLZ); Ardosna Jardin (Ma.; JFM); Bashe Umpatpatelet Atulet (Arg.; MPG); Bonfu (Gui.; UPW); Broad Path (Eng.; JFM); Caape (Arg.; MPG); Caramelito (Bol.; DLZ); Caroca (Ma.; JFM); Ccepo Ccepo (Peru; SOU); Ci Hua Lian Zi Cao (China; USN); Dágunró (Nig.; UPW); En Toba (Arg.; MPG); Erva de Pinta (Brazil; AUS); Hierba del Pollo (Sp.; USN); Hierba del Toro (Sp.; JFM); Humuto (Peru; SOU); Ierwa Achawa (Arg.; MPG); Kabal Xtes (Maya; JFM; MAX); Khaki Bur (Eng.; UPW); Khakiweed (Eng.; Haw.; Scn.; AH2; USN); Klágbã (Ghana; UPW); Llapa Reliñ (Arg.; MPG); Monigbe (Upper Volta; UPW); Periquito de Espinho (Brazil; USN); Quisca Yuyu (Arg.; MPG); Sacachiquim (Ma.; JFM); Sanguinaria (Ma.; JFM); Sièn Goni (Sen.; UPW); Taaso (Araucano; Arg.; MPG); Tianguis (Ocn.; AH2); Tianguispepecla (Mex.; MAX); Tianguis Pepétua (Mex.; AUS); Tianquizppepecla (Mex.; MAX); Tianquizppetla (Mex.; MAX); Torito (Arg.; MPG); Umutu (Peru; SOU); Washer Woman (Eng.; JFM); Yerba del Moro (Peru; SOU); Yerba del Pollo (Arg.; Uru.; MPG).

**Activities:**

Abortifacient (f; JFM; UPW); Analgesic (f; UPW); Antiinflammatory (f; MPG); Astringent (f; MAX); Decongestant (f; MPG); Diaphoretic (f; MAX); Diuretic (f; MAX; MPG); Emollient (f; MPG); Eueptic (f; MPG); Hemostat (f; DLZ); Lactagogue (f; UPW); Laxative (f; DLZ); Litholytic (f; MAX); Tonic (f; MPG); Vermifuge (f; UPW).

**Indications:**

Bleeding (f; DLZ); Calculus (f; MAX); Childbirth (f; UPW); Constipation (f; DLZ; UPW); Dentition (f; MPG); Diarrhea (f; MPG; UPW); Dysentery (f; JFM); Dyspepsia (f; DLZ); Enterosis (f; DLZ; MPG); Fever (f; MAX; UPW); Gastrosis (f; MAX; MPG); Gonorrhoea (f; WO2); Hepatosis (f; MPG); Infection (f; JFM); Inflammation (f; MPG); Metrorrhagia (f;

DLZ); Nephrosis (f; MPG); Neuralgia (f; UPW); Pain (f; UPW); Sore Throat (f; UPW); Stones (f; MAX); Swelling (f; UPW); Syphilis (f; AUS); Tuberculosis (f; DLZ); Vaginosis (f; DLZ); VD (f; AUS; WO2); Worms (f; UPW); Wounds (f; DLZ).

**Dosages:**

FNFF = !!

- Barbadians take decoction as abortifacient and antidiysenteric (JFM).
- Bolivians take leaf decoction 3x/day for constipation, dyspepsia, enterosis, and tuberculosis (DLZ).
- Bolivians use decoction as a wash for bleeding, metrorrhagia, vaginosis, and wounds (DLZ).
- Ghanaians express juice from heated leaves to sniff for neuralgia (UPW).
- Ghanaians use as abortifacient, analgesic, lactagogue, and to stop abdominal pain and dysentery (UPW).
- Congolese use decoction to treat VD (UPW).
- Ivory Coastals take for childbirth and worms (UPW).
- Mexicans take juice decoction as astringent, diaphoretic, and diuretic, for fever and to clear gastrointestinal passages. Eaten cooked for calculus (MAX).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**LOVE-LIES-BLEEDING (*Amaranthus caudatus* L.) ++**

**AMARANTHACEAE**

**Illustrations:**

p 13 (MPG)

**Synonyms:**

*Amaranthus alopecurus* Hochst. ex A Br. de Bouche.; *A. caruru* Hort.; *A. caudatus* L. subsp. *mantegazzianus* (Pass.) ined.; *A. caudatus* subsp. *saueri* V. Jehlík; *A. caudatus* var. *albiflorus* Moq.; *A. caudatus* var. *alopecurus* Moq.; *A. dussii* Sprenger; *A. edulis* Speg.; *A. mantegazzianus* Pass.; *A. maximus* Mill.; *A. paniculatus* Wall.; *A. pendulus* Hort. ex Moq.; fide (MPG; POR; USN).

**Common Names:**

Abanico (Ma.; JFM); Achis (Ma.; Peru; JFM; POR; RAR); Achita (Bol.; Ma.; Peru; Que.; Sp.; DLZ; JFM; POR; RAR; USN); Amarante Caudée (Fr.; POR; USN); Amarante Queue-de-Renard (Fr.; POR; USN); Amaranto (Ma.; Sp.; JFM; POR); Amaranto Coda Rossa (It.; POR); Anant (Ben.; WOI); Ataco (Ecu.; MPG); Ataco Morado (Ecu.; MPG); Bayam Ekor Kucing (Mal.; POR); Bayam Selaseh (Mal.; POR); Bledo Cimarron (Ma.; JFM); Bledo Francés (Sp.; POR; USN); Bledo Rojo (Ma.; JFM); Borlas (Ma.; JFM); Bustanafroz (Tel.; WO2); Cauda de Raposa (Por.; POR); Chaquilla (Ma.; JFM); Chichimeca (Ma.; JFM); Chilikaesoppu (Kan.; WO2); Cholai (Ben.; WO2); Chuamarasa (Ben.; WO2); Chuko (Guj.; WO2); Coimi (Ma.; Peru; JFM; POR; RAI; USN); Cola de Zorro (Ma.; Peru; JFM; POR); Coyo (Peru; Sp.; POR; RAR); Coyos (Ma.; JFM); Cuipa (Peru; POR; USN); Discipline des Religieux (Fr.; USN); Foxtail (Eng.; USN); Foxtail Amaranth (Eng.; POR; USN); Fuchschwanz (Ger.; POR); Gartenfuchschwanz (Ger.; POR; USN); Himo Geitou (Japan; POR); Hong Xian Cai (Taiwan; POR); Inca Wheat (Eng.; Ocn.; AH2; POR; USN); Inkaweizen (Ger.; POR; USN); Jataco (Sp.; POR; USN); Kahola Bhaji (Mar.; WO2); Kedari Chua

(Him.; WO2); Keikera (Tel.; WOI); Kiwicha (Bol.; Peru; Que.; Sp.; DLZ; POR; USN); Lao Qiang Gu (China; POR; USN); Lao Qiang Ke (Taiwan; POR); Love-Lies-Bleeding (Eng.; Scn.; AH2; POR; USN); Millmi (Bol.; Que.; DLZ); Moco de Pavo (Ma.; Peru; JFM; POR); Moncos de Peru (Por.; POR; USN); Peddathotakura (Tel.; WO2); Phak Khom Bai Daeng (Thai; POR); Pira (Ma.; JFM); Pison Calaloo (Bel.; Ma.; BNA; JFM); Punarevonhätä (Fin.; POR); Pungikerrai (Tam.; WO2); Purple Amaranth (Eng.; USN); Qamaya (Sp.; POR); Qoymi (Bol.; Que.; DLZ); Queue de Renard (Fr.; USN); Quihuicha (Ma.; JFM); Quilete (Sp.; POR; USN); Quinoa del Valle (Arg.; POR); Quinoa (Ma.; JFM); Quinoa del Valle (Ma.; JFM); Raamadaanaa (Hindi; POR); Rævehale-Amarant (Den.; POR); Rajagaro (Guj.; WO2); Rajagira (Sanskrit; WO2); Rajgira (Hindi; WO2); Rama Dana (Hindi; WOI); Ramdana (Hindi; WO2); Rana Tampala (Sin.; POR); Rävsvans (Swe.; POR); Red-Hot-Cat-tail (Eng.; USN); Sangoracha (Sp.; POR); Sangorache (Ecu.; MPG); Sennin Koku (Japan; POR; USN); Sergorache (Ecu.; MPG); Shiritsa Khvostataia (Rus.; POR); Sirukeerai (Tam.; WO2); Siru Kiray (Tam.; WOI); Szarlat Zwisly (Pol.; POR); Tassel Flower (Eng.; USN; WO2); Trigo del Inca (Sp.; POR; USN); Trigo Inca (Ma.; JFM); Velvet Flower (Eng.; USN); Wei Sui Xian (China; POR).

### Activities:

Abortifacient (f; WO2); Alpha-Amylase-Inhibitor (1; X15930754); Antidiabetic (1; X15930754); Antiemmenagogue (f; MPG); Antiinflammatory (f; MPG); Antioxidant (1; X15930754); Antiseptic (1; MPG; X8843942); Astringent (f; MPG); Diuretic (f; JFM; MPG); Emmenagogue (f; DLZ); Fungicide (1; MPG; X8843942); Hemagglutinant (1; MPG); Laxative (f; WO2); Nervine (f; DLZ); Proteinase-Inhibitor (1; X8305477); Sedative (f; DLZ); Tranquilizer (f; DLZ).

### Indications:

Amebiasis (f; MPG); Arthrosis (f; DLZ); Bronchosis (f; JFM; MPG); Colds (f; JFM); Constipation (f; WO2); Cystosis (f; DLZ); Diabetes (1; X15930754); Diarrhea (f; MPG); Enterosis (f; DLZ); Fever (f; DLZ; JFM); Fungus (1; MPG; X8843942); Gastrosis (f; DLZ); Gingivosis (f; MPG); Hemorrhoids (f; WO2); Hepatosis (f; DLZ); Infection (1; MPG; X8843942); Inflammation (f; DLZ; MPG); Insomnia (f; DLZ); Mycosis (1; MPG); Nervousness (f; DLZ); Pain (f; DLZ); Pulmonosis (f; JFM; WBB); Rheumatism (f; MPG); Scrofula (f; WO2); Sores (f; WO2); Sore Throat (f; MPG).

### Dosages:

FNFF = !! Seeds and leaves eaten (MPG). Grown as a potherb in India.

- Bolivians suggest the decoction for amenorrhea, cystosis, and rheumatic pains (DLZ).
- Bolivians suggest the tea for hepatosis, gastrosis, and intestinal fevers (DLZ).
- Bolivians use the leaves infused in milk to calm the nerves and alleviate insomnia (DLZ).
- Senegalese use roots boiled in honey as a pediatric laxative (WO2).
- South Africans use the leaves as abortifacient (WO2).

### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed six titles alluding to toxicity of this species.

### Extracts:

Squalene reportedly reaches 2.2% in seed of “Oscar blanco” and 7.5% in “Victor red” varieties (X15930754).

**ALTAMISA (*Ambrosia arborescens* Mill.) +****ASTERACEAE****A****Illustrations:**

p 115 (MPG); p 701 (ROE)

**Synonyms:***Ambrosia artemisioides* Willd.; *Artemisia artemisioides*; *Franseria artemisioides* Willd.**Notes:**

Roersch (1994) notes that the altamisa is close kin to *Ambrosia peruviana*, sharing some of its common names and applications. He reports *Ambrosia arborescens*, the “altamisa” in Apurímac, Cusco, and Puno, but failed to find *Ambrosia peruviana*, the “markhu,” in Puno. He also reports *Ambrosia peruviana* from Bolivia, Colombia, and the Caribbean (ROE). However, De Lucca and Zalles (1992) report *Ambrosia arborescens* from Bolivia with both common names “altamisa” and “markhu.” I suspect that only the taxonomists distinguish the two, and that the names and applications are interchangeable with most Native Americans. Regrettably, I have no key to distinguish these two closely related species; I wish Roersch had provided one in his interesting comparison of the species.

**Common Names:**

Ajenjo (Bol.; MPG); Altamisa (Bol.; Ecu.; MPG; ROE); Ambrosia Silvestre (Bol.; MPG); Artemiasa (Bol.; MPG); Artemisa (Bol.; DLZ; MPG); Artimisia (Ecu.; MPG); Artrisa (Bol.; MPG); Madre Hierba (Bol.; DLZ; MPG); Marckhu (Aym.; Bol.; Ecu.; MPG); Marco (Bol.; Ecu.; MPG; USN); Marcu (Ecu.; MPG); Marju (Peru; Que.; EGG); Uriuri (Bol.; MPG). (Nscn).

**Activities:**

Analgesic (f; EGG; MPG); Antiinflammatory (f; MPG); Antiseptic (f1; MPG); Antispasmodic (f; MPG); Antiulcer (1; X10837995); Bactericide (1; MPG); Contraceptive (f; MPG); Cytoprotective (1; X10837995); Diuretic (f; MPG); Emmenagogue (f; DLZ; EGG; MPG); Emollient (f; ROE); Hemostat (f; ROE); Insecticide (f; MPG); Insectifuge (f; MPG); Molluscicide (1; MPG); Pulifuge (f; EGG; MPG); Stimulant (f; MPG); Tonic (f; MPG); Vermifuge (f; EGG; MPG).

**Indications:**

Abscesses (f; ROE); Amenorrhea (f; DLZ; MPG); Arthrosis (f; MPG; ROE); *Bacillus* (1; MPG); Bacteria (1; MPG); Bleeding (f; ROE); Bruise (f; MPG); Cardiopathy (f; ROE); Colic (f; MPG); Cramps (f; MPG); Diarrhea (f; ROE); Dysentery (f; DLZ; MPG); Dysmenorrhea (f; DLZ; MPG); Edema (f; ROE); Enterosis (f; MPG); Epilepsy (f; DLZ; MPG); Fever (f; ROE); Fracture (f; ROE); Hematoma (f; MPG); Hemorrhoids (f; EGG; ROE); Infection (f1; MPG); Inflammation (f; MPG); Metrorrhagia (f; ROE); *Micrococcus* (1; MPG); Nausea (f; MPG); Nervousness (f; MPG); Oliguria (f; DLZ; MPG); Pain (f; EGG; MPG); Parasites (f; MPG; ROE); Pneumonia (f; ROE); Puerperium (f; ROE); Rheumatism (f; MPG; ROE); Sores (f; MPG); Spasms (f; MPG); Sprains (f; ROE); Stomachache (f; ROE); Swelling (f; ROE); Toothache (f; ROE); Tumors (f; ROE); Ulcers (1; X10837995); Uterosis (f; ROE); Worms (f; EGG; MPG).

**Dosages:**

FNFF = X

- Andean Peruvians chew the flower heads for toothache (ROE).
- Andean Peruvians wash rheumatic areas with the decoction (ROE).
- Bolivians massage cramps and rheumatic areas with toasted leaves (DLZ).

- Bolivians suggest leaf tea to correct dysentery, dysmenorrhea, and oliguria (DLZ).
- Bolivians suggest root tea for epilepsy (ROE).
- Peruvians apply leaves topically to hemorrhoids (EGG).
- Peruvians suggest the leaf tea for worms (EGG).
- Peruvians use leaf tea as analgesic (EGG).

**Downsides:**

Large doses can be poisonous, causing CNS-depression, diarrhea, nausea, and vomiting (MPG). As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**PERUVIAN RAGWEED (*Ambrosia peruviana* Willd.) +  
ASTERACEAE**

**Illustrations:**

fig 16 (MPG); p 33 (TRA)

**Synonyms:**

*Ambrosia cumanensis* Kunth; *A. paniculata* auct. non Michx.; *A. paniculata* var. *cumanensis* (Kunth.) O. E. Schulz; *A. paniculata* var. *peruviana* (Willd.) O. E. Schulz.

**Notes:**

I regret that the TRAMIL (TRA) book reported many of the activities my database back then indicated for quercetin. Quercetin occurs in all plants, methinks, and everything they (and my database) said could accrue equally then to all plants. The more quercetin in the plant, the more possibility that the activity accrued to the plant, the less, the less. At one level quercetin inhibits p450, at another stimulates; at one level it is mutagenic, at another antimutagenic, at least *in vitro*; shall we throw up our hands. No, methinks. It occurs in all plants. Our herbivorous ancestors and the genes they passed on to us have co-evolved with quercetin for millions of years. I'm flaky enough to assume that our homeostatic body treats it like a vitamin, grabbing it if needed, urinating it if unneeded. It has many positive sides and some downsides as well. I suspect there are hundreds such ubiquitous chemicals, occurring in all or most green plants, and homeostatically mined by the human ingesting the plants containing them. Inca Indians used the herb, or its juice, to preserve cadavers (EGG; JFM; ROE; SOU).

**Common Names:**

Absinthe Anglais (Creole; Haiti; VOD); Absinthe Bâtard (Creole; Haiti; VOD); Absinthe de la Dominique (Creole; Haiti; VOD); Absinthe Marron (Creole; Haiti; VOD); Ajenjo (Peru; EGG); Alcanfor (Cuba; Ma.; JFM; JTR); Altamisa (Cuba; Hon.; Pan.; Peru; Sal.; Ven.; EGG; JFM; JTR; MPG; RAR; ROE; TRA); Altamiz (Hon.; Nic.; Peru; JFM; MPG; RAR); Altamiza (Peru; RAR); Altemisa (Ven.; MPG); Amargo (Peru; EGG; JFM; RAR; SOU); Ambroise a Feuilles d'Armoise (Creole; Haiti; VOD); Ambroisie (Fwi.; USN); Ambrosia Silvestre (Peru; ROE); Artamisa (Dor.; Ven.; MPG; TRA); Artemisa (Cuba; Dor.; Peru; Sp.; Ven.; AHL; EGG; JTR; MPG; SOU; USN); Cumana Ragweed (Peru; EGG; JFM; SOU); Maki (Peru; ROE); Malco (Peru; ROE); Marco (Peru; Sp.; EGG; JFM; RAR; SOU; USN); Marcu (Peru; EGG; SOU); Markhu (Peru; ROE); Marquito (Peru; EGG; JFM; RAR); Mashi Paico (Shipibo/Conibo; EGG); Mugwort (Ma.; JFM); Ragweed (Eng.; JFM; VOD); Wegwood (Ma.; JFM); Wild Tansy (Ma.; JFM); Wormwood (Eng.; JFM; USN). (Nscn).

**Activities:**

Analgesic (1; TRA); Anthelmintic (f; RAR; VOD); Antiaggregant (1; TRA); Antiallergic (1; TRA); Antiarrhythmic (1; TRA); Antihemorrhagic (1; TRA); Antiherpetic (1; TRA); Anti-

inflammatory (1; TRA); Antimalarial (f; VOD); Antioxidant (1; TRA); Antiseptic (f; ROE); Antispasmodic (f1; MPG; ROE; X15582831); Antiviral (1; MPG; TRA); Astringent (f; JTR); Bactericide (1; MPG; TRA); Capillariprotective (1; TRA); Depurative (1; MPG); Emmenagogue (f; EGG; JFM; ROE); Emollient (f; ROE); Febrifuge (f; JTR; VOD); GABA-nergic (1; X15582831); Hemostat (f; ROE); Hypotensive (1; TRA); Insecticide (1; MPG); Myorelaxant (1; TRA); Neurosedative (f; JFM); Neurotonic (f; EGG); NOS-Inhibitor (1; X15507340); Parasiticide (1; MPG); Pediculicide (f; MPG); Positive Chronotropic (1; TRA); Stimulant (f; JTR); Stomachic (f; VOD); Tonic (f; MPG); Vermifuge (f; EGG; JFM; SOU).

### Indications:

Abscesses(f; ROE); Allergies (f1; MPG; TRA); Amenorrhea (f; EGG; ROE; SOU); Arrhythmia (1; TRA); Arthrosis (f; JTR); Bleeding (f1; MPG; ROE; TRA); Cardiopathy (f; MPG; ROE); Childbirth (f; MPG; ROE); Chorea (f; JFM); Colic (f; TRA); Constipation (1; MPG); Convulsions (1; MPG); Cramps (f; ROE); Dysmenorrhea (f; ROE); Dyspepsia (f; ROE); Edema (f; ROE); Enterosis (f; ROE); Epilepsy (f1; JFM; ROE; X15582831); Fever (f; JFM; JTR; VOD); Gastrosis (f; EGG; MPG; TRA); Headache (f; MPG); Hemorrhoids (f; ROE); Herpes (1; TRA); High Blood Pressure (f1; MPG; TRA); Hysteria (f; EGG; ROE; SOU); Infection (f1; MPG; ROE; TRA); Inflammation (1; TRA); Insomnia (f; MPG); Leukorrhea (f; ROE); Malaria (f; VOD); Myalgia (f; MPG); Nervousness (f; MPG); Neuralgia (f; JFM; RAR; ROE; SOU); Otitis (f; MPG); Pain (f1; MPG; TRA); Parasites (f; MPG; ROE); Pediculosis (f; MPG); Pneumonia (f; ROE); Rheumatism (f; JFM; RAR; SOU); Spasms (f1; MPG; ROE; X15582831); *Staphylococcus* (1; MPG); Stomachache (f; EGG; MPG; ROE); Swelling (f; MPG; ROE); Sydenham's Chorea (f; ROE); Toothache (f; ROE); Tumors (f; ROE); Uterosis (f; ROE); Vaginosis (f; ROE); Worms (f; EGG; JFM; ROE; RAR; SOU; VOD); Yellow Fever (f; MPG).

### Dosages:

FNFF = X

- Andean Peruvians chew flower heads for toothache (ROE).
- Andean Peruvians take with molle and eucalyptus for swollen feet (in pregnancy) (ROE).
- Andean Peruvians wash rheumatic areas with the decoction (ROE).
- Colombians use dry leaf decoction as emmenagogue (MPG).
- Cubans use plant, in baths or lotions, for rheumatism (JFM; JTR).
- Dominicans take leaf decoction, cultivating the plant as a febrifuge (JFM; VOD).
- Haitians suggest the plant as anthelmintic, antimalarial, febrifuge, and stomachic (VOD).
- Hondurans take the plant for convulsions, gastrosis, parasites, parturition, and stomachache (MPG).
- Nicaraguans take for "aire," cardiopathy, gastrosis, high blood pressure, insomnia, nervousness, and otitis (MPG; TRA).
- Peruvians suggest root decoction for hysteria and neuralgia (SOU).
- Peruvians take decoction for amenorrhea and rheumatism (JFM; SOU).
- Puerto Ricans take floral decoction, in milk, for amenorrhea, epilepsy, and neuralgia (JFM).
- Salvadorans take decoction water for leukorrhea, parasites, and stomachache (MPG).
- Venezuelans make brooms from the plant to combat fleas (MPG).
- Venezuelans take powdered dry root decoction as antiepileptic, antirheumatic, emmenagogue, febrifuge, tonic, and vermifuge (MPG).

**Downsides:**

Some Haitians may be allergic (to the pollen), experiencing asthma, conjunctivitis, eczema, laryngitis, rhinitis, and urticaria (VOD). As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

Plant decoction significantly reduced epilepsy-induced convulsion amplitude in mice (X15582831).

**TORCHWOOD (*Amyris elemifera* L.) +  
RUTACEAE**

**Illustrations:**

p 396 (AHL)

**Notes:**

The AUS, AVP, and JTR entries may also apply to *A. sylvatica*, which may or may not be a synonym of a variety of closely related *A. balsamifera*. The two species share many common names and folk uses.

**Common Names:**

Amyris Wood (Jam.; AUS); Balsam Tree Bark (Eng.; AUS); Bois Blanc (Guad.; Haiti; Mart.; AVP); Bois Candil (Ma.; JFM); Bois Chandelle (Guad.; Haiti; Mart.; AVP); Bois Flambeau (Guad.; AUS); Bois Pini (Guad.; Haiti; Mart.; AVP); Candlewood (Eng.; AVP); Chandelle Blanc (Dor.; AUS); Chandelle Marron (Haiti; AHL); Chilillo (Hon.; AVP); Cuaba Amarilla de Costa (Cuba; AUS); Cuaba de Costa (Cuba; AVP); Cuabilla (Cuba; Pr.; AUS; AVP); Elemi (Eng.; AUS); Guacanejo (Dor.; AUS; AVP); Gum Elemi (Eng.; AUS); Lignum Rhodium (Jam.; AVP); Melón (Sal.; AVP); Palo de Tea (Dom.; Pr.; AVP); Pimienta (Hon.; AVP); Roldán (Sal.; AVP); Rosewood (Jam.; AVP); Sea Amyris (Eng.; AVP; USN); Taray (Hon.; AUS; AVP); Tea (Pan.; Pr.; AVP); Teilla (Pr.; AUS); Torchwood (Eng.; AVP; USN); Trois Paroles (Haiti; AUS); Waika Pine (Bel.; AUS; BNA); White Candlewood (Jam.; AVP); White Torch (Bah.; AVP). (Nscn).

**Activities:**

Febrifuge (f; DAW); Mycobactericide (1; X9626931); Pectoral (f; JTR).

**Indications:**

Arthrosis (f; JLH); Childbirth (f; AUS); Diarrhea (f; AUS); Dyspnea (f; JTR); Fever (f; DAW); Flu (f; DAW); *Mycobacterium* (1; X9626931); Puerperium (f; DAW); Sores (f; DAW); Tumors (f; JLH); VD (f; AUS); Wounds (f; DAW).

**Dosages:**

FNFF = ! Flesh of fruit aromatic but edible (JFM).

- Bahamians use for childbirth, fever, flu, sores, and wounds (Eldridge, 1975).
- Caicos Islanders use shoot teas for diarrhea (AUS).
- Cubans steep wood macerate in wine 9 days for shortness of breath (AUS).
- Venezuelans use leaf decoction for VD (AUS).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

The compound texalin, an oxazole from *Amyris elemifera*, showed antimycobacterial activity when tested against *Mycobacterium tuberculosis*, *M. avium*, and *M. kansasii* (X9626931).

**CASHEW (*Anacardium occidentale* L.) +  
ANACARDIACEAE**

**Illustrations:**

p 287 (L&W); pl 275 (KAB)

**Synonyms:**

*Acajuba occidentalis* (L.) Gaertn.; *Anacardium microcarpum* Ducke; *Cassuvium pomiferum* Lam.; fide (POR).

**Notes:**

Known in Haiti since 1558 (VOD). Too often I find contrasting reports about herbs, as for example many edible plants may contain some antioxidant, some pro-oxidant, some carcinogenic, some anticarcinogenic, some hypertensive, some hypotensive, some hyperglycemic, some hypoglycemic phytochemicals. In my fantasy world I speculate that the human body, having co-evolved with many such phytochemicals for millions of years, has homeostatic mechanisms for grabbing those phytochemicals it needs, excluding those it does not need. Very speculative. Rarely do I find the juxtaposition of such contrasts in a single sentence in an abstract as, e.g., fresh and processed cashew apple juice, a favorite beverage in Brazil, “have mutagenic, radical-trapping, antimutagenic, and co-mutagenic activity and ... these properties can be related to the chemical constituents of the juices” (X12802807). My Caucasian genes cannot have known cashew, nor *Capsicum*, nor *Carica*, much more than 500 years, when the Caucasians “discovered” America in 1492. My Native American genes, if any, may have known them closer to 50,000 years.

Friends and vague listeners may have heard me urging a “Gatesian” computerized approach, analyzing 1,000 of the better food farmaceuticals, for 1,000 important phytochemicals so we could then, via “Gatesian” computer approaches, determine which were best for which malady of mankind. Phillips et al. (2005) certainly dampen my enthusiasm for such an approach, showing that just the nuts present huge analytical challenges. And my decades of compiling have shown me what mega-variation there is in the quantization of phytochemicals within a given species. I fear a mega-Gatesian mega-cybernetic quandary. “The results of this study also illustrate the complexity that can be involved in evaluating food phytochemical data. Determination of the phytosterol composition of nuts and seeds is not amenable to production



scale analysis of predetermined components using existing standard values” (Phillips et al., 2005). What is the most efficacious mix of the subinfinite combinations of the various sterols in a given nut, or in a 7-nut mixture, some possibly synergic, some probably additive, some possibly even antagonistic. I still optimistically suspect that all these sterols have been known to our genes for millions of years of co-evolution and hence the body homeostatically grabs those it needs from the sterol mix, excluding them if unneeded. Fortunately for nut-lovers, they quantified the phytosterols in nuts and seeds commonly consumed in the U.S. Such phytosterols are medicinally important, e.g., in BPH and in high cholesterol (X16302759).

### Common Names:

Acajaiba (Brazil; Por.; AVP; KAB); Acajiú (It.; POR); Acajou (Haiti; Ma.; AVP; JFM); Acajou a Pommes (Fr.; Fwi.; AVP; L&W; POR); Acajounrd (Den.; POR); Acajou Occidental (Fr.; EFS); Acaju (Col.; Ma.; Tupi; JFM; RAR); Acajubaum (Ger.; USN); Acaya (Bol.; Ma.; JFM; MPG); Acayoba (Arg.; AVP); Acayocha (Ocaina; Peru; Sa.; EGG; SOU); Acayoiba del Brasil (Sp.; KAB); Acuyu (Bol.; MPG); Agnikrita (Sanskrit; KAB); Akajoubaum (Ger.; POR); Akaju (Dutch; EFS); Alcayoiba (Chile; MPG); Amarillo (Col.; MPG); Amerikan Elmasi (Tur.; EFS); AZaaro (Ocaina; EGG; RAR; SOU); Anacardier (Fr.; KAB; USN); Anacardier Occidental (Fr.; EFS); Anacardio (Col.; It.; MPG; POR); Anacardo (Arg.; Chile; Col.; Sp.; AVP; MPG; POR; USN); Anacardo Occidental (Sp.; EFS); Andima (Tam.; KAB); Andi Paruppu (Mal.; WOI); Arbol de Jobo (Col.; MPG); Arushkara (Sanskrit; KAB); Atinga (Ga; Krobo; Twi; KAB); Badami Pharangi (Iran; EFS; NAD); Balubad (Tag.; KAB; POR); Beli Mahagoni (Bos.; Croatia; Serbia; POR); Bellota de Acajou (Sp.; AVP); Bholliamambo (Oriya; KAB); Bollogo (Ilo.; KAB); Boschkassjoe (Dutch; Sur.; AVP; L&W); Brazilian Cashew (Eng.; POR); Buas Gajus (Malaya; KAB); Bunga Kesar (Malaya; IHB); Cacahuil (Dor.; Ma.; Pr.; AVP; JFM; JTR); Cachou (Fr.; AVP); Cajou (Fr.; Ma.; JFM; POR); Cajú (Brazil; Ma.; Peru; Por.; AVP; JFM; POR; RAR; USN); Cajuasu (Brazil; Por.; AVP; RAR); Cajú Do (Por.; POR); Cajúeiro (Brazil; Ma.; Por.; AVP; EFS; JFM; L&W; POR; USN); Cajuil (Dor.; Ma.; Pr.; AVP; JFM; L&W); Caju Manso (Por.; AVP); Canjil (Ven.; JTR); Caobo (India; AVP); Caracoli (Ma.; JFM); Caschunuss (Ger.; KAB); Casciu (It.; AVP); Casha (Sa.; SOU); Cashew (Eng.; Scn.; JFM; POR; USN); Cashewnoot (Dutch; POR); Cashu (Dwi.; L&W); Casjoe (Ma.; JFM); Casoi de Filipinas (Sp.; KAB); Casoy (Pi.; Tag.; Vis.; KAB; PCS); Casu (Peru; AVP; L&W); Casuy (Tag.; KAB); Caujil (Col.; MPG); Caujir (Col.; MPG); Cayutero (Par.; AVP); Cherry (Dwi.; AVP); Chorote (Ma.; JFM); Chura (Col.; MPG); Coa (Ticuna; EGG); Common Cashew (Eng.; POR); Cuji (Ma.; JFM); Cuya (Sa.; SOU); Dao Lon Hot (Ic.; KAB); Diboto (Congo; AVP); Djambu Monjet (Malaya; EFS); Du Xian Zi (Pin.; DAA); Ecorce Anti-Diabetique (Fr.; AVP; KAB); Elefanteluis (Den.; EFS); Epatca (Slovenia; POR); Epatka (Slovenia; POR); Gaerumara (Kan.; NAD); Gaju (Sumatra; IHB); Gajus (Java; Malaya; IHB; POR); Gera Bija (Kan.; DEP); Gera Poppu (Kan.; DEP); Gera Vate (Kan.; DEP); Geru (Kan.; KAB); Gerubija (Kan.; KAB; WOI); Gia Nhu Thu (Ic.; KAB); Gonkuda (Tulu; KAB); Gous el Kabouly (Arab.; AVP); Govamba (Kan.; KAB); Gove (Kan.; KAB); Guchhapushpa (Sanskrit; KAB); Hajli Badam (Ben.; KAB; SKJ); Hijlibadam (Ben.; DEP; NAD); Hijilabodamo (Oriya; KAB); Indijanski Kašu-Orah (Bos.; Croatia; Serbia; POR); Jacote (Guat.; Sal.; AVP); Jacote Maranyon (Guat.; Sal.; AVP); Jaedema Midi (Tel.; NAD); Jambu (Java; IHB); Jambu Erang (Sumatra; IHB); Jambu Golok (Malaya; IHB; POR); Jambu Irong (Malaya; IHB); Jambu Mede (Malaya; Sunda; IHB; POR); Jambu Mete (Java; IHB); Jambu Monje (Sumatra; IHB); Jambu Monyet (Java; Malaya; IHB; KAB; POR); Jambu Siki (Sunda; IHB); Jambu Terong (Malaya; IHB); Janggar (Malaya; IHB); Janggus (Malaya; EFS; IHB; KAB; POR); Jidi Anti (Tel.; DEP); Jidimamidi (Tel.; KAB); Jidi Mamidi Vittu (Tel.; DEP); Jidi Vate (Kan.; DEP); Jiede Pundu (Tel.; DEP); Jocote (Peru; EGG); Jocote Marañón (Guat.; Hon.; Ma.; Sal.;

JFM; L&W); Kaajuu (Hindi; Nepal; Urdu; POR); Kaju (Ben.; Bom.; Dec.; Guj.; Hindi; Kon.; Mah.; Malaya; Mar.; Sin.; DEP; JFM; KAB; NAD); Kaju Atta (Sin.; DEP; KAB); Kaju Chabi (Mar.; DEP; KAB); Kaju Kaliya (Bom.; DEP; KAB); Kajus (Malaya; IHB); Kajutaka (Sanskrit; KAB; SKJ); Kallarima (Tam.; KAB); Kanju (Hausa; KAB); Kanjus (Malaya; IHB); Kappal Cherun Kuru (Mal.; DEP); Kappalmavu (Mal.; KAB); Kappalsera (Mal.; KAB); Kappa Mavakuru (Mal.; DEP); Kappa Mavu (Mal.; NAD); Kasauh (Ulwa; EB53:363); Kaschubaum (Ger.; EFS; POR; USN); Kaschunuss (Ger.; POR); Kaschunussbaum (Ger.; AVP; POR); Kasho (Amahuaca; Piro; Shipibo/Conibo; EGG; MD2; RAR); Kashu (Ese'aja; EGG; MD2); Kashumavu (Ker.; Mal.; KAB; SKJ); Kasjoe (Dutch; Ma.; Sur.; AVP; JFM; POR); Kasjoeboom (Dutch; POR); Kasoy (Tag.; POR); Kazao (Congo; AVP); Kazu (Kon.; KAB); Kazuwa (Congo; AVP); Kempuggeru (Kan.; KAB); Kempukerubija (Kan.; DEP; NAD); Kia Jou Chou (China; KAB); Kia Jou Tsou (China; KAB); Kjiu (China; AVP); Hottai (Tam.; DEP); Kottaimundiri (Tam.; DEP; KAB); Lonkabholliia (Oriya; KAB); Mamuang Himapan (Thai; IHB); Mamuang Him Maphan (Thai; POR); Manzana Portuguesa (Peru; EGG); Marañon (Col.; Cr.; Cuba; Guat.; Mex.; Peru; Sal.; Sp.; Tupi; AVP; EFS; EGG; JFM; KAB; MD2; POR; RyM; USN); Merei (Ma.; JFM); Mereke (Ma.; Sur.; AVP; JFM); Merey (Col.; Ma.; Ven.; AVP; JFM; JTR; POR); Merey del Orinoco (Sp.; KAB); Merey Sabaero (Ma.; JFM); Merli (Sp.; EFS); Mijaguo (Ma.; JFM); Mijao (Ma.; JFM); Mindiri (Tam.; WOI); Mindiri Appazham (Tam.; NAD); Mindiri Paruppu (Tam.; NAD); Mkanju (Swahili; KAB); Mokkamamidi (Ap.; Tel.; KAB; SKJ); Moonthamamidivittu (Tel.; NAD); Mundiri (Tam.; DEP; KAB; SKJ); Mundiri Kai (Tam.; NAD); Mundiri Kottae (Tam.; NAD); Muntam Amidi (Tel.; KAB; WOI); Muntamamidi Vittu (Tel.; DEP); Muntha Mamidi (Tel.; WOI); Nierenbaum (Ger.; EFS; USN); Noix Cajou (Creole; Fr.; Haiti; POR; VOD); Noix d'Acajou (Fr.; Fr. Guy; Haiti; AVP; L&W; POR); Noix de Cajou (Fr.; POR); Noyer d'Acajou (Fr.; KAB); Nucnu Bares (Sa.; SOU); Nucnu Varas (Que.; RAR); Nucnyu Baras (Sa.; SOU); Nuez de Anacardo (Sp.; AVP); Oacaju (Brazil; KAB); Olvi (Sur.; AVP); Orosi (Ma.; JFM); Orvi (Dutch; Ma.; Sur.; AVP; JFM; L&W); Pajuil (Ma.; Pr.; Sp.; Ven.; AVP; JFM; JTR); Paludi Cashupete (Dwi.; AVP; L&W); Parangimavu (Mal.; KAB); Paranki Nava Kuru (Mal.; DEP); Parvati (Sanskrit; KAB); Patirimavu (Mal.; KAB); Pauji (Ma.; Ven.; AVP; JFM); Pauxi (Ma.; JFM); Pipak (Bos.; Croatia; Serbia; POR); Pipci (Croatia; POR); Pomme Acajou (Haiti; AVP); Pomme Cajou (Guad.; Haiti; AVP; VOD); Pomme d'Acajou (Fr.; Haiti; L&W; POR; VOD); Pommier de Cajou (Fr.; KAB); Ponm Kajou (Creole; Haiti; VOD); Portugimavu (Mal.; KAB); Prithagabija (Sanskrit; KAB); Saram (Tam.; KAB); Shoephaphara (Sanskrit; EFS; MPI; NAD); Sigidima (Tam.; KAB); Sihosayesi (Burma; DEP; KAB); Sophahara (Sanskrit; KAB); Sophara (Sanskrit; KAB); Srigdhapitaphala (Sanskrit; KAB); Swai Chanti (Ic.; KAB); Thayet (Burma; DEP; KAB); Thee Hot (Burma; KAB); Thee Noh (Burma; DEP; KAB); Tihotiya-si (Burma; DEP; KAB); Ti Hsien Tzu (China; KAB); Tirigai (Tam.; KAB); Turakageru (Kan.; KAB; NAD); Uaipinu (Cuna; IED); Upapushpika (Sanskrit; KAB); Úri (Garifuna; IED); Uttumabalam (Tam.; KAB); Vrittapatra (Sanskrit; KAB); West Indian Cashew Nut (Eng.; KAB); West Indische Elefantenausagebaum (Ger.; EFS); West Indische Olifants-Luizenboom (Dutch; EFS); Ya Koi (Thai; IHB); Yao Guo (China; POR); Yao Guo Li (China; POR); Yao Guo Shu (China; POR); Yapiru (Ma.; JFM); Ya Ruang (Thai; IHB); Yevutsa (Awuna; KAB).

### Activities:

Aldose-Reductase-Inhibitor (1; WO3); Alpha-Glucosidase-Inhibitor (1; WO3); Alterative (f; NAD); Amebicide (1; IED); Analeptic (f; EGG); Anesthetic (f1; DEP; IED; NAD); Anthelmintic (f1; MPB); Antidiabetic (f; MPB); Antiedemic (f1; MPG; VOD; X15148523; X2414605); Antihepatomic (1; WO2); Antihypertensive (1; MPG; WO2); Antiinflammatory (f1; MPB; MPG; X15148523; X15507326); Antileishmanic (f; X8701041); Anti-

mutagenic (1; X15138017); Antioxidant (f1; VOD; X16095792); Antiradicular (f; VOD); Antiseptic (f1; EGG; RAI; WO2); Antitumor (1; VOD; WO3); Antitussive (f; RAI); Antiviral (1; X15876501); Aphrodisiac (f; MPB; VOD); Astringent (f1; MPB); Bactericide (1; MPI; VOD; WO3); Cardiogenic (f; EGG); Chemopreventive (f1; VOD; X16095792); CNS-Depressant (1; MPB; VOD); Contraceptive (f; DAV); Cytotoxic (1; WO3); Depurative (f; JFM; MPB); Diaphoretic (f; MPB); Digestive (f; RAI); Discutient (f; IED); Diuretic (f; RAI; WO2); Emmenagogue (f; VOD); Expectorant (f; DAV; MPB); Febrifuge (f; NAD; RAI); Fungicide (f1; IED; VOD; X15619579); Gram(+)-icide (1; VOD); Hemostat (f; DAV); Hypoglycemic (f1; MPG; RAI; WO2; X15174002); Hypotensive (f; RAI); Insecticide (1; WO2); Insectifuge (f; IED); Invertase-Inhibitor (1; WO3); Keratolytic (f; EGG); Lactagogue (f; VOD); Larvicide (1; WO2); Laxative (f; VOD); Lipooxygenase-Inhibitor (1; WO3); Molluscicide (1; MPB); Mutagenic (1; X15138017); Prostaglandase-Synthase-Inhibitor (1; WO3); Purgative (f; WO2); Rubefacient (f1; MPI); Secretolytic (f1; RAI); Sedative (1; MPB); Stimulant (f; MPB); Tonic (f; MD2; MPB); Tyrosinase-Inhibitor (1; RAI; X8021657); Vasorelaxant (1; X15138017); Vermifuge (f; JFM); Vesicant (1; MPI); Vulnerary (f; VOD).

### Indications:

Acariasis (f; RAR); Acne (f1; MPG; VOD; WO3); Aftosa (f; MPG; RAR); Age Spot (f; VOD); Amebiasis (1; IED); Amenorrhea (f; VOD); Amnesia (f; WO2); Anemia (f; VOD); Aphtha (f; MPB); Arrhythmia (f; WO2); Arthritis (f1; X15148523); Asthma (f; JFM; RAI); Bacteria (1; MPI; RAI; VOD; WO3); Bleeding (f; DAV; EGG); Bronchosis (f; RAI); Burns (f; IHB; VOD); Cachexia (f; MPB); Callus (f; JLH); Cancer (1; VOD; WO3); Cancer, breast (1; WO3); Cancer, cervix (1; WO3); Cancer, skin (1; WO3); *Candida* (f; EGG; IHB); Cardiopathy (f; EGG; WO2); Caries (f; EGG; RAI); Catarrh (f; IHB; MPB); Cholera (f; WO2); Colds (f; IED); Colic (f; MPB; RAI); Congestion (f; JFM; RAI); Constipation (f; IHB; VOD); Contraception (f; DAV); Corns (f; JLH; WO2); Coughs (f; MD2; RAI); Cracked Feet (f; DEP); *Cryptococcus* (1; X15619579); Debility (f; MPB; RAI); Dermatitis (f; IHB; JTR; MD2; MPB; NAD; VOD); Diabetes (f1; EGG; JFM; MPB; MPG; RAI; WO2; X15174002; X9741880); Diarrhea (f1; IED; IHB; MD2; ULW; VOD; X15876501); Dysentery (f; DAV; JFM; VOD); Dyslactea (f; VOD); Dyspepsia (f; JFM; MPB); Dysuria (f; RAI); Edema (f1; MPG; VOD; X15148523; X2414605); Enterosis (f; MPB); *Escherichia* (1; RAI); Feet (f; IHB); Fever (f; IED; MD2; NAD; RAI; VOD); Filaria (1; MPG); Flu (f; DAV; MPG; VOD); Fungus (f1; IED; MD2; VOD; X15619579); Gastrosis (f1; JFM; RAI); Gingivitis (f; IED); Glaucoma (1; WO3); Headache (f; IED); *Helicobacter* (1; RAI); Hemoptysis (f; DAV; RyM; VOD); Hepatoma (1; WO2); High Blood Pressure (f1; EGG; MPG; RAI; WO2); Hookworm (f; WO2); Hyperglycemia (f1; MPG; RAI; WO2; X15174002); Impotence (f; MPG; VOD; WO2); Infection (f1; EGG; IED; MD2; MPI; RAI; VOD; WO2; WO3; X15619579; X15876501); Inflammation (f1; MPB; MPG; X15148523; X15507326; X2414605); Insanity (f; WO2); *Leishmania* (f1; X8146389); Leprosy (f; IHB; NAD; RAR; WO2); Lupus (f; MPG); Malaria (f; IED; MPG; RAI; VOD); Mycosis (f; IED; IHB; MD2); Myosis (f; RAI); Nausea (f; IHB; JFM; MD2); Nephrosis (f; WO2); Neurosis (f; VOD); Pain (f1; DEP; IED; MPG; NAD); Pemphigus (f; IHB); Pericarditis (f; WO2); *Pseudomonas* (1; RAI); Psoriasis (f; DEP; MPG; NAD; VOD); Puerperium (f; JFM); Rashes (f; IED); Rheumatism (f1; WO2; X15148523); Ringworm (f; VOD); Rotavirus (1; X15876501); Scrofula (f; RAI); Septic Shock (1; X15507326); Sores (f; VOD; WO2; X870104); Sore Throat (f1; IED; RAI; WO3); Stomachache (f; JFM); Stomatosis (f; JFM); Swelling (f1; MPG; X2414605); Syphilis (f; MPB; MPG; RAI; VOD); Thrush (f; IHB; MD2; VOD); Toothache (f; VOD); Tumors (1; VOD; WO3); Ulcers (1; RAI); Vaginosis (f; DAV; EGG; RAI); VD (f; MPB; RAI); Viruses (1; X15876501); Warts (f; IHB; MPG; RAR; VOD; WO2); Worms (f1; JFM; MPB; VOD); Wounds (f; RAI; VOD; X8701041).

**Dosages:**

FNFF = !!! Fruits edible raw, seed poisonous until roasted. Fruit juice regarded as bechic, cardiotoxic (doc. of signatures, the “apple” looks like the heart?), diuretic, expectorant, laxative, and respiratonic, applied to acne, calluses, corns, lupus, sores, tumors, and warts, and drunk for catarrh, cholera, dermatoses, flu, hemoptysis, leprosy, nausea, nephrosis, and sore throat (JLH; MPG; NAD; SOU; VOD; WO2).

- Asian Indians suggest the acrid seed resin for amnesia, heart palpitations, mental derangement, rheumatic pericarditis, and small pox (WO2).
- Brazilians gargle with bark decoction for inflammation, sore throat, and stomatosis (JFM), using the plant also for asthma, bronchitis, colic, corns, cough, debility, diabetes, dyspepsia, dysuria, eczema, enterosis, fever, impotence, leishmania, myosis, oliguria, pain, psoriasis, scrofula, sore throat, stomatosis, syphilis, tonsillitis, urogenitosis, vaginosis, VD, warts, and wounds (MPB; RAI).
- Colombians soak the bark in water 24 hr and take for diabetes (JFM).
- Cubans use the “fruit” for diabetes, the bark infusion for dysentery and eruptions (JTR).
- Cuna take sweetened bark decoction with *Spondias* bark for asthma, cold, and congestion (IED).
- Haitians poultice mature leaves on burns and dermatoses (VOD).
- Haitians take bark or leaf decoction for amenorrhea, anemia, diabetes, diarrhea, fever, malaria, neuroses, plaque, and thrush, using the plant for caries, diabetes, stomatitis, toothache, and warts (RAI; VOD).
- Latinos suggest bark tea, 3–4 cups/day, for dermatosis, diabetes, inflammation, sore throat, and stomatosis (MPG), and the decoction for diarrhea, dysentery, and sore throat (JFM).
- Latinos take leaf decoction for diarrhea, dyspepsia, and gastrosis (JFM).
- Mexicans suggest the plant for arthrosis, dermatosis, diabetes, diarrhea, freckles, leprosy, sores, swelling, syphilis, and warts (JTR; PCS; RAI).
- Panamanians take for asthma, cold, congestion, diabetes, diarrhea, high blood pressure, and inflammation (RAI).
- Peruvians use the plant for cough, dermatoses, diarrhea, flu, fungus, infection, mycosis, and thrush, suggesting douches with bark decoction for candidiasis and vaginitis (EGG; MD2; RAI).
- Surinamese boil a sliver of bark, 5 × 10 cm, in 1 liter water for diarrhea, dysentery, and sore throat (JFM), using the seed oil to kill botfly larvae (RAI).
- Tikuna use fruit juice for diarrhea and flu (DAV; RAI; SAR).
- Trinidadans take leaf decoction for asthma, cough, diarrhea, dyspepsia, and stomach-ache (JFM; RAI).
- Venezuelans respect the astringent leaf tea for diabetes and diarrhea (JFM), the resin for caries and warts (JTR), taking the plant for dysentery, leprosy, and sore throat (RAI).

**Downsides:**

Not covered (AHP; KOM). Alkyl phenols are dermal irritants. May cause poison ivy like reactions. As of July 2007, the FDA Poisonous Plant Database listed 128 titles alluding to toxicity of this species.

**Extracts:**

Alcoholic leaf extract anticancer, antihepatomic, hypoglycemic (MPI; WO2). Fruit juice contains three antitumor compounds (JAF41:1012).

**PINEAPPLE (*Ananas comosus* (L.) Merr.) +++****BROMELIACEAE****Illustrations:**

fig 16 (DAV)

**Synonyms:**

*Ananas ananas* (L.) Voss; *A. duckei* Hort.; *A. sativus* Schult. & Schult. f.; *A. sativus* var. *duckei* Camargo; *Bromelia ananas* L.; *B. comosus* L. (basionym); fide (AH2; USN).

**Common Names:**

Aainunnas (Iran; KAP); Abacaxi (Brazil; Por.; AVP; MPB; POR; USN); Abacaxí do Mato (Brazil; USN); Achupalla (Que.; EGG; RAR); Ainunnas (Arab.; Iran; EFS); Anachi Pazham (Tam.; POR); Ananá (Guarani; Sp.; DLZ; POR; USN); Ananas (Den.; Dutch; Fin.; Fr.; Ger.; Haiti; Hindi; Rus.; Sanskrit; Swe.; Tur.; Yunani; AVP; KAP; POR; USN); Ananá (Por.; POR; USN); Anânâs (Arab.; POR); Ananas Commun (Fr.; POR); Ananas Edule (Guad.; Mart.; AVP); Ananaseiro (Por.; UPW); Ananasie (Ma.; JFM); Ananas Jadalny (Pol.; POR); Ananas Pain de Sucre (Creole; VOD); Ananassa (Ger.; AVP); Ananá Selvagem (Brazil; USN); Ananasso (It.; AVP; POR); Ananasso Ordinario (It.; POR); Ananas (Por.; AVP); Ananas do Mato (Por.; AVP); Anannaas (Urdu; POR); Anannaasa (Hindi; POR); Anaras (Ben.; KAP); Annaanas (Urdu; POR); Annasi (Sin.; KAP); Annasipazham (Tam.; KAP); Bhaikatacher (Nepal; KAP); Bhui Katar (Nepal; POR); Bo Luo (China; POR); Boniama (Dor.; AVP); Cancá (Cacataibo; Shipibo; EGG; RAR; SOU); Cancan (Amahuaca; Cashibo; Piro; EGG; RAR; SOU); Canga (Conibo; EGG; RAR); Chihuy (Que.; RAR; SOU); Chiirimahuay (Aym.; SOU); Chi Na' (Tikuna; SAR); Chirianti (Peru; SOU); Chixnu (Uvoshá; SOU); Chop (Ma.; JFM); Chulu (Aym.; SOU); Cjhuy (Que.; EGG); Curauá (Brazil; RAR); Dyahsoonco (Uvoshá; SOU); Feng Li (China; POR); Festa (Tur.; POR); Fichtenapfel (Ger.; EFS); Ganna (Piro; EGG; RAR); Garaffon Piña (Peru; DAV); Gebero Piña (Peru; DAV); Gravatá (Brazil; USN); Hakatame-nanasu (Japan; KAP); Hanna (Piro; SOU); Huacamayo Piña (Peru; DAV); Jambo Piña (Peru; DAV); Korisha (Candoshi; SOU); Lagarto Piña (Peru; DAV); Mâak Nat (Laos; POR); Matzatlí (Mex.; AVP); Mazati (Ma.; JFM); M'noah (Khmer; POR); Nana (Cocoma; Creole; Culina; EGG; RAR; SOU; VOD); Na Naq Thì (Burma; POR); Nanas (Malaya; Por.; POR; UPW); Nanas Hijao (Malaya; EFS); Nanasie (Ma.; JFM); Osi (Cuna; IED); P'a In Ae P'ul (Korea; POR); Panacous (Brazil; AVP); Phalta (Aym.; SOU); Piña (Bel.; Col.; Cr.; Cuba; Dor.; Sp.; AHL; RyM; USN); Piña de América (Sp.; POR; USN); Piña Negra (Peru; DAV); Piña Tropical (Sp.; POR; USN); Pine (Trin.; AVP); Pineapple (Bel.; Eng.; Scn.; AH2; BNA; CR2; USN);

Pinha (Brazil; Por.; EFS); Pínya (Tag.; POR); Pita (Brazil; AVP); Pomme de Pin (Ma.; JFM); Sapparot (Thai; POR); Shiju (Choco; IED); Thom Dua (Vn.; POR); Tohuan (Amuesha; AVP); Traí Qua (Vn.; POR); Tuhuan (Amuesha; Yanesha; EGG); Yánanásh (Aguaruna; Jibaro; Shuar; EGG; RAR; SOU); Yayama (Dor.; AVP); Yeíawa (Garifuna; IED); Yurujtira (Bol.; Que.; DLZ); Z'Ananas (Haiti; AHL); Zannanna (Haiti; AVP; VOD).

### Activities:

Abortifacient (f1; DAV; EGG; VOD; WO2); Alterative (f; KAP); Analgesic (1; APA; X15841258); Anorectic (1; APA; CRC); Anthelmintic (f1; DAV; EGG); Antiaggregant (1; APA; KOM; PH2; X16308185); Antiallergic (1; X16337164); Antiasthmatic (1; X16337164); Anticolitic (1; X15936249); Antidiabetic (1; X16753349); Antidote (f; AHL; JFM); Antie-demic (1; KOM); Antiencephalotic (1; X15794389); Antifertility (1; KAP; WO2); AntiIBD (1; X15936249); Antiileus (1; X16137711); Antiinflammatory (1; APA; PH2; WO2; X15841258; X16337164); Antimetastatic (1; X15796214); AntiMS (1; X15794389); Antineurotic (1; X15794389); Antinitrosaminic (1; JNU); Antioxidant (1; WO2; X14611187); Antiplatelet (1; X16308185); Antiradicular (1; X14611187); Antisarcomic (1; X15796214); Antisciatic (f; SUP); Antiscorbutic (1; IED); Antitendinitic (f; SUP); Antitumor (1; BGB; PH2; X15796214); Antiulcer (1; APA); Aperient (f; KAP); Ascaricide (f; UPW); Astringent (f1; DAV; EGG); Bac-tericide (1; BGB); Carminative (f; SAR); Cerebrotonic (f; EGG); Chitinase (1; X15665484); Cholagogue (f; IED); Decongestant (f; JFM); Depurative (f; CRC); Diaphoretic (f; IED); Digestive (f1; APA; CRC; KAP; MPB; VOD); Discussant (1; CRC); Diuretic (f1; AHL; APA; DLZ; KAP; VOD; WO2; X11297849); Emmenagogue (f1; APA; EFS; IED; KAP; VOD); Estrogenic (f1; CRC; WBB); Expectorant (f; UPW); Febrifuge (f; KAP); Fibrinolytic (1; APA; BGB; PH2); Fungicide (1; X15665484); Hemostat (f; EFS; KAP); Hydragogue (f; CRC); Hypotensive (f; EGG); IL-6-Inducer (1; X16367938); Immunomodulator (1; X16337164); Immunostimulant (1; X16367938); iNOS-Inhibitor (1; X16137711); Intoxicant (f; CRC); Laxa-tive (f1; VOD; WO2); Lipolytic (1; CRC; FNF); Litholytic (f; EGG); Myocontractant (1; CRC); Myorelaxant (1; APA; CRC); Necrolytic (1; WO2); NF-Kappa-B-Inhibitor (1; X16137711); Parasiticide (1; AHL; CRC; FNF); Proteolytic (1; AHL; APA; BGB; PH2); Purgative (1; IED; KAP); Refrigerant (f; CRC; IED); Suppurative (f; EGG); Taeniicide (1; WO2); Tonic (f; APA; KAP); Uterocontractant (1; CRC); Uterotonic (f; APA); Vermifuge (f1; AHL; CRC; KAP; VOD); Vulnerary (1; APA; X16367938).

### Indications:

Abscesses (f; CRC); Allergies (1; X16337164); Amenorrhea (f; PH2); Anemia (f; EGG); Angina (f; VOD); Arteriosclerosis (f; EGG); Arthrosis (f1; DAV; EGG; X15841258); Asthma (f1; PH2; X16337164); Bacteria (1; JAC7:405); Biliousness (f; DLZ; EGG); Bites (f; IED); Bleeding (f1; CRC; DAV; EFS; KAB); Bleennorrhagia (f; DAV; EGG); Bronchosis (f; JFM; MPB); Bruise (f1; CRC); Burns (f12; BGB; PH2; UPW); Calculus (f; EGG); Cancer (f1; APA; PH2); Catarrh (f; EGG); Cellulite (1; FT71:S73); Childbirth (f; CRC); Colic (f; EGG); Constipation (f1; APA; CRC; PH2); Corns (f; CRC); Cystosis (f; APA; CRC); Diabe-tes (1; X16753349); Diarrhea (1; APA; JAC7:405); Diphtheria (f; EGG); Dropsy (f; UPW); Dysmenorrhea (f; AHL; APA; PH2); Dyspepsia (f; APA; DAV; PH2); Dyspnea (f; UPW); Dysuria (f; DLZ; JFM); Edema (f1; CRC; KOM); Encephalosis (f1; X15794389); Entero-sis (f; EGG; RAR); *Escherichia* (1; JAC7:405); Exocrine Hepatic Insufficiency (f; BGB); Fever (f; CRC; PH2); Flu (f; EGG); Fungus (1; X15665484); Gas (f; APA; DAV); Gastrosis (f; EGG; KAP); Hematoma (f; CRC; WO3); Hemorrhoids (f1; JFM; FT71:S73); Hepatosis (f; DLZ; JFM); Hiccups (f; CRC); High Blood Pressure (f; EGG); Hypochondria (f; AHL; CRC); Ileus (1; X16137711); Infection (f1; IED; X15665484); Inflammation (f1; APA; EGG; MPB; PH2; X15841258); Jaundice (f; IED; KAP); Kidney Stones (f; APA; DAV); Labor (f; APA); MS (f1; X15794389); Mycosis (1; X15665484); Nasal Parasinusitis (1; KOM); Nausea (f; DLZ); Nephrosis (f; EGG); Neurasthenia (f; APA); Neurosis (1; X15794389); Obesity (f1;

CRC; PH2); Pain (f1; APA; EGG; X15841258); Pancreatosis (f; PH2); Parasites (f1; AHL; CRC; EGG); Phlebitis (f; APA); Pulmonosis (f; JFM); Respirosis (f; APA; CRC); Rheumatism (f1; DAV); Scarlet Fever (f; CRC); Sciatica (f; SUP); Seasickness (f; JFM); Sinusitis (f1; APA; CRC; X15796206); Smallpox (f; UPW); Sores (f1; AHL; CRC; WO3); Sore Throat (f; EGG; JFM); Spider Bites (f; UPW); Sprains (f1; CRC); Stings (f; IED); Strangury (f; EGG); Swelling (f1; APA; KOM; PH2); Tendinitis (f; SUP); Thrombophlebitis (f; APA); Tumors (f1; CRC; X15796214); Ulcers (f1; APA; CRC); Urethrosis (f; UPW); UTIs (1; APA); Varicosities (f; APA); VD (f; APA; CRC); Vertigo (f; UPW); Warts (f; CRC); Worms (f; APA; DAV; PH2); Wounds (f12; APA; PH2; X16367938).

### Dosages:

FNFF = !!! Ripe fruits widely eaten raw or preserved, or made into beverages, juice, liqueur, vinegar or wine. Green fruits eaten pickled or in soups with hot sauce. Terminal buds or cabbages eaten raw or cooked; flower spikes peeled and steamed. Young shoots also eaten raw or curried (EGG; FAC; TAN). 80–320 mg bromelain/day (KOM; PH2); 250–500 mg bromelain 3×/day (APA); 14–28 ml fruit juice (KAP); 1–3 drams leaf juice (KAP).

- Bolivians gargle fruit decoction with honey for angina, sore throat, and tonsilitis (DLZ).
- Congolese take the leaf decoction for difficulty in breathing (UPW).
- Haitians eat ripe fruits as digestive (VOD).
- Haitians take juice of green fruit or flowers as abortifacient or emmenagogue (MPB; VOD).
- Haitians take juice of green fruit or root as diuretic or vermifuge (VOD).
- Haitians take ripe fruit juice as laxative, antidote to meat or shellfish poison, and as a gargle for angina (VOD).
- Latinos boil rind with rosemary and apply to hemorrhoids (JFM).
- Peruvians eat the fruit or drink the juice for anemia, arteriosclerosis, arthritis, catarrh, cystosis, diphtheria, dyspepsia, flu, high blood pressure, inflammation, intestinal parasites, nephrosis, pain, pharyngosis, stones, and worms (EGG).
- Peruvians suggest pineapple “chicha” for biliary calculus (EGG).
- Peruvians take leaf decoction for colic and gastrostis (EGG).
- Sierra Leone natives treat spider bites by alternating warm leaf tea washes with pieces of fruit (UPW).
- Trinidadans apply crushed young fruits or leaves or bind them on sprains (JFM).
- Venezuelans use sweetened juice of ripe fruits for hepatitis, jaundice, and seasickness (JFM).

### Downsides:

Class 1 (JAD). Not covered (AHP). “No health hazards are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). Some people may be allergic to Bromelain. Side effects may include allergy, diarrhea, GI problems, metrorrhagia, nausea, and vomiting (APA; KOM). Vietnamese attribute rare cases of heart failure with cyanosis and ecchymoses, followed by collapse and coma and sometimes death after eating fruits (WBB). May augment antiaggregant or anticoagulant activity of other blood thinners (KOM). Bromelain may increase blood and urinary levels of tetracyclines or other antibiotics (KOM; PH2). Large doses of ripe (I would have said unripe) fruit juice are reported to cause utero-contractions, so may be contraindicated in pregnancy (APA). Juice of unripe fruit highly irritant and abortifacient. As of July 2007, the FDA Poisonous Plant Database listed 31 titles alluding to toxicity of this species.

**Extracts:**

Root extracts (10 mg/kg orl rat) diuretic, ca. 75% of hydrochlorothiazide (X11297849). Bromelain has shown antiinflammatory, analgesic, and immunomodulatory properties which may provide a safer alternative or adjunctive treatment for osteoarthritis, asthma, and hypersensitivity disorders (X15841258; X16337164), and has also been shown to reduce tumor growth and metastasis (X15796214). This is the only case I remember of Fleming et al. (1998) missing a Blumenthal et al. (1998) Commission E approved drug, the American food plant, pineapple, with its proteolytic bromelain, a very active compound indeed.

Bromelain: antiaggregant, antianginal 1,500 mg/day, antiappetant, antiarthritic, anti-bronchitic, anticellulitic, antidysmenorrheic, antidyspeptic, antiechymotic, antiedemic ED50 = 50 mg/kg, antiepisiotomic, antiinfective, antiinflammatory, antileukemic, anti-metastatic 400mg/kg/day, antiplaque, antipneumonic, antiprostaglandin, antiradiation, antisclerodermic, antisinusitic, antitendinitic, antithrombophlebitic, antithrombic 60–800 mg, antitumor, antitumor (breast), antitumor (lung) 0.3% diet, antitumor (skin), antitussive, antiulcer, bactericide, chemopreventive, digestive, emetic, fibrinolytic EC50 = 25 mg/kg, hypotensive, laxative, lipolytic, mucolytic, myorelaxant, nematocide, proteolytic 400–600 mg 3× daily, spasmolytic, vermifuge, vulnerary, LD50 = 20 ivn rbt; LD50 = 36 ipr mus, LD50 = >10,000 orl rat, LD50 = 30–35 par mus, LD50 = 85.2 par rat, LD50 = >20 par rbt (FNF).

**CABBAGE BARK (*Andira inermis* (W. Wight) Kunth ex DC.) +  
FABACEAE**

**Illustrations:**

fig 18 (IED)

**Synonyms:**

*Andira excelsa* Kunth; *A. jamaicensis* Urb.; *A. microcarpa* Griseb.; *A. racemosa* Lam. ex J. St.-Hil.; *Geoffroea inermis* W. Wight; *Millettia rooseveltii* De Wild.; *Vouacapoua inermis* (W. Wright) A. Lyons; fide (USN).

**Notes:**

AVP entries below may also apply to *Andira excelsa* and *Andira racemosa*.

**Common Names:**

Acatrus (Brazil; AVP); Ajunado (Bol.; Sp.; DLZ; USN); Almendro (Cr.; Sp.; IED; USN); Almendro Cimarrón (Guat.; AVP); Almendro del Rio (Sal.; AVP); Almendro Montés (Sal.; AVP); Almendro Real (Sal.; AVP); Andira (Peru; EGG); Andira Uchi (Brazil; Por.; Sa.; SAR; USN); Andira Uxi (Brazil; MPB); Angelim (Brazil; Peru; Por.; AVP; USN); Angelim Branco (Brazil; Por.; USN); Angelim da Várzea (Brazil; Por.; MPB; USN); Angelim de Varzea (Peru; AVP); Angelim Liso (Brazil; Por.; USN); Angelin (Eng.; USN); Angelina (Col.; AVP); Angelin-a-Grappes (Fwi.; JTR); Angelin Palmiste (Guad.; Mart.; AVP); Angelin Tree (Eng.; JTR; USN); Aracuhy (Brazil; AVP); Arenillo (Pan.; AVP; IED); Avineira (Brazil; AVP; MPB); Bastard Cabbage (Bel.; Eng.; Trin.; AVP); Bastard Mahogany (Wi.; JTR); Batseed (Br. Guy.; AVP); Black Blossom Berry (Bel.; AVP); Black Plum (Tobago; AVP); Bois Olive (Guad.; Mart.; AVP); Bois Palmiste (Fwi.; Haiti; AVP; JTR); Cabbagebark (Bel.; Eng.; AVP; USN); Carbón (Hon.; AVP); Carne Asado (Cr.; IED); Chaperno (Guat.; AVP); Chigo (Ven.; AVP); Chirai (Ven.; AVP); Cocú (Cr.; Pan.; Sp.; IED; USN); Congo (Ma.; JFM); Cornwood (Eng.; Ma.; JFM); Crilumbica (Mex.; JTR); Cuartoloti (Ma.; JFM); Cuilimbuca (Mex.; AVP); Cujia (Nic.; AVP); Cumarurana (Brazil;



MPB); Dividive (Col.; IED); Dog Almond (Vi.; AVP); Dog Plum (Vi.; AVP); Dogwood (Eng.; IED); False Mahogany (Vi.; AVP); Guacamayo (Guat.; Hon.; AVP; JTR); Guaxis (Bol.; Chiriguano; DLZ); Guayacan Congo (Ma.; JFM); Iquichemenes (Bol.; Chiquitano; DLZ); Iximche (Ma.; JFM); Kabbes (Sur.; AVP); Kaway (Bel.; AVP); Kokaro (Ma.; JFM); Llabá (Ma.; JFM); Lombricero (Mex.; Trin.; AVP); Maca (Ma.; JFM); Maca Colorado (Mex.; JTR); Macallo (Mex.; JTR); Macayo (Mex.; AVP; JTR); Majagua Gallina (Ma.; JFM); Majoma (Ma.; JFM); Manteco (Col.; Sp.; USN); Moca (Cr.; Pr.; AVP; JTR); Moca Blanca (Pr.; AVP; JTR); Moca Colorado (Mex.; AVP); Moca Negra (Ma.; JFM); Motón (Ecu.; AVP); Pacay (Mex.; JTR); Palo de Burro (Dor.; AVP); Palo de Seca (Col.; AVP); Pau de Morcego (Brazil; Por.; USN); Peloto (Ma.; JFM); Pheasantwood (Jam.; AVP); Pilon (Pan.; IED); Pilón (Guy.; Ven.; AVP; JTR); Purga (Col.; AVP); Quinillo Colorado (Peru; AVP; EGG); Quira (Pan.; AVP; IED); Reddie (Ma.; JFM); Roode Kabbes (Sur.; AVP); Saint Martin (Fr. Guy.; AVP); Saint Martin Rouge (Fr. Guy.; AVP); Swamp Kaway (Bel.; AVP); Tarara (Bol.; Guarayo; DLZ); Tassac (Bol.; Chacoba; DLZ); Trompillo (Ma.; JFM); Uchy (Peru; RAR); Worm Bark Tree (Eng.; AVP); Wormwood (Jam.; AVP); Yaba (Cuba; JTR); Yaba Colorado (Cuba; JTR); Yabo (Dor.; Mex.; AVP; JTR); Yakba (Ma.; JFM); Yaya (Mex.; AVP). (Nscn).

#### Activities:

Anthelmintic (f; CRC; MPB; WO2); Antidote (comocladia) (f; CRC); Antiplasmodial (1; X11025148); Cicatrizant (f; DAV; RAR); Emetic (f; CRC; MPB; RAR); Febrifuge (f; IED; JFM); Laxative (f; IED); Narcotic (f; CRC; JTR; WO2); Parasiticide (f; IED); Piscicide (f; CRC; DLZ); Purgative (f; CRC; IED; MPB; SAR; WO2); Toxic (f; DLZ); Vermifuge (f; CRC; IED); Vulnerary (f; DLZ).

#### Indications:

Constipation (f; IED; WO2); Dermatitis (f; JFM); Dysentery (f; DLZ); Eczema (f; CRC; JFM); Enterosis (f; IED); Fever (f; CRC; IED; JFM; WO2); Malaria (f1; CRC; JFM; X11025148); Parasites (f; IED); Worms (f; CRC; IED; MPB; WO2); Wounds (f; DAV; DLZ; JFM; RAR); Yaws (f; CRC).

#### Dosages:

FNFF = ?

- Brazilians take decoction of 500 mg seed (elsewhere bark) on an empty stomach for parasites, possibly malarial parasites (JFM).
- Cubans take leaf decoction for *Comocladia* poisoning, fever, and worms (JFM; JTR).
- Jamaicans apply grated seed in paste to wounds, taking bark or fruit for worms (JFM).
- Nicaraguan Garifuna use bark decoction for constipation, fever, intestinal parasites, and worms (IED).
- Trinidadans apply bark decoction to eczema and yaws, and take orally for worms (JFM).

#### Downsides:

Not covered (AHP; APA; KOM; PHR. As of July 2007, the FDA Poisonous Plant Database listed 15 titles alluding to toxicity of this species.

#### Extracts:

Contains berberine and biochanin-A, both of which have many biologically important activities (WO2). Calycosin and genistein, from lipophilic stem and leaf extracts, antiplasmodial *in vitro* for *Plasmodium falciparum* (X11025148).

## THE "CATUABA" (*Anemopaegma arvense* (Vell.) Stellfeld) +

### BIGNONIACEAE

A

#### Synonyms:

*Anemopaegma mirandum* (Cham.) DC.; *Bignonia arvensis* Vell. (basionym); *Bignonia miranda* Cham.; *Jacaranda arvensis* Steud.; fide (USN).

#### Notes:

Many species in many genera are known with the same aphrodisiac connotation "catuaba." Other Brazilian species in this genus include *A. album* Mart., *A. glaucum* Mart., and *A. scabriusculum* Mart. This has the "firmest" reputation. Is it the doctrine, i.e., paired pods (fig p 79 MPB), that led to this aphrodisiac folklore?

#### Common Names:

Catuaba (Brazil; MPB; USN); Catuaba Verdadeira (Brazil; MPB); The "Catuaba" (Eng.; JAD). (Nscn).

#### Activities:

Antiperoxidant (1; X15046771); Antisyphilitic (f; MPB); Aphrodisiac (f; MPB); Cytoprotective (1; X15046771); Pectoral (f; MPB); Stimulant (f; MPG); Tonic (f; MPG).

#### Indications:

Impotence (f; MPB); Syphilis (f; MPB); VD (f; MPB).

#### Dosages:

FNFF = ?

## ANGOSTURA (*Angostura officinalis* (Willd.) T. S. Elias) ++

### RUTACEAE

#### Synonyms:

*Bonplandia trifoliata* Willd.; *Cusparia febrifuga* Humb. ex DC.; *Cusparia trifoliata* (Willd.) Engl.; *Galipea officinalis* Hancock.

#### Common Names:

Amarillo de Sierra (Ven.; MPG); Angostura (Eng.; USN); Angosture Vraie (Fr.; EFS); Carony (Eng.; EFS); Cascarillo (Ven.; MPG); Chuspa (Ven.; MPG); Corteza de Angostura (Ven.; MPG); Cuspa (Sp.; Ven.; USN); Cuspare (Sp.; Ven.; USN); Cusparia (Fr.; Ven.; EFS; MPG); Echte Angostura (Dutch; Ger.; EFS); Kusbaria (Tur.; EFS); Palo Amarillo (Ven.; MPG); Quina Amarilla (Ven.; MPG); Quina Blanca (Ven.; MPG); Quina de Nueva Andalucia (Ven.; MPG); Quina Orinoco (Ven.; MPG); True Angostura (Eng.; EFS).

#### Activities:

Antiplasmodial (1; X11842332); Antiseptic (1; X10232071); Aperitive (1; EFS; FNF); Astringent (f; MPG); Bactericide (1; X10232071); Bitter (1; HHB; PH2); Carminative (f; EFS); Cytotoxic (1; X11842332); Digestive (f; MPG); Emetic (1; PH2); Febrifuge (f; HHB; MPG); Gastrotonic (f; PH2); Laxative (f; PH2); Orexigenic (f1; EFS; FNF); Stimulant (f; EFS); Stomachic (f; EFS); Tonic (f; MPG; PH2).

#### Indications:

Anorexia (1; EFS; FNF); Appetite (1; EFS; FNF); Bacteria (1; X10232071); Constipation (f; PH2); Diarrhea (f; MPG; PH2); Dysentery (f; HHB; MPG); Dyspepsia (f; HHB); Fever (f; HHB; MPG; PH2); Gas (f; EFS); Gastrosis (f; PH2); Hypoacidity (1; HHB); Infection (1;

X10232071); Malaria (f1; MPG; X11842332); *Mycobacterium* (1; X10232071); Paralysis (f; MPG); Tuberculosis (1; X10232071).

**Dosages:**

FNFF = ! Bark extract used to flavor baked goods, bitters, candies, gelatins, ice creams, liqueurs, and tonics (FAC). The original flavor for angostura bitters, now composed of bitter orange peel, gentian, etc. (FAC). 0.5 g (HHB).

**Downsides:**

Not covered (AHP). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). But they designate no dosage! (JAD). Larger doses may induce nausea a/o vomiting (PH2).

**Extracts:**

Crude bark extracts and pure alkaloids were antimalarial for *Plasmodium falciparum* (IC50 = 1.8–40 µg/ml for chloroquine-sensitive, 0.09–38 µg/ml for chloroquine-resistant strains); galipinine was best (IC50 = 0.09–0.9 µg/ml for chloroquine-resistant strains) (X11842332).

**CHERIMOYA (*Annona cherimola* Mill.) ++**

**ANNONACEAE**

**Illustrations:**

p 171 (LWW)

**Synonyms:**

*Annona pubescens* Salisb.; *A. tripetala* Aiton; fide (USN; POR).

**Common Names:**

Annone (Fr.; POR); Anona (Fr.; Guat.; Sp.; POR); Anona del Perú (Sp.; POR); Anona do Chile (Por.; POR); Anona Poshte (Sal.; POR); Anón de Manteca (Cuba; Sp.; POR); Anone (Fr.; POR); Anoon (Amuesha; SOU); Atemóia (Brazil; Por.; USN); Atis (Tag.; POR); Bichichinejo (Choco; IED); Cachiman (Fr.; POR); Cachimán (Dor.; Sp.; POR); Cachiman la Chine (Haiti; AVP); Catuche (Col.; Sp.; POR); Cerimolia (It.; POR); Cherimóia (Brazil; Por.; USN); Chérimole (Fr.; POR); Cherimolia (Eng.; WO2); Chérimolier (Fr.; POR; USN); Cherimoya (Eng.; Ger.; POR; USN; WO2); Cherimoyer (Eng.; WO2); Chirimóia (Por.; POR); Chirimorriñón (Por.; Sp.; Ven.; POR); Chirimoya (Cuba; Ger.; Por.; Que.; Sp.; POR); Chirimoyabaum (Ger.; POR); Chirimoyo (Ecu.; Peru; Sp.; POR; SOU; USN); Chirrimorrinyon (Ven.; AVP); Corazón (Dor.; Pr.; Sp.; POR); Corossol du Pérou (Fr.; POR); Custard-Apple (Eng.; POR; USN); Fruta do Conde (Por.; POR); Grabiola (Por.; AVP); Grabiola (Por.; POR); Graveola (Por.; AVP; POR); Graviola (Brazil; Por.; AVP; POR); Hanamphala (Kan.; NAD); Hanumaanaphala (Kan.; WO2); Hanumaanaphalamuhettu (Tel.; WO2); Jamaikapfel (Ger.; POR); Lakshmanaphalamu (Tel.; WO2); Mamón (Cuba, Dor.; Pr.; Sp.; POR); Mao Ye Fan Li Zhi (China; POR); Marutiphal (Mah.; NAD); Pac (Guat.; Sp.; POR); Peruanischer Fraschenbaum (Ger.; POR); Pox (Mex.; Sp.; AVP; POR); Rahmapfel (Ger.; POR); Usisuti (Cuna; IED); Xaen (Cashibo; RAR); Zuckerannone (Ger.; POR).

**Activities:**

Antiprotozoal (1; X16846708); Antiseptic (1; WO3); Cathartic (f; DAW; WO2); Cytotoxic (1; WO3); Emetic (f; DAW; WO2); Filaricide (1; WO3); Insecticide (1; DAW; WO3); Parasiticide (1; DAW; WO3); Pediculicide (f; DAW); Piscicide (1; DAW); Poison (f; DAW); Stomachic (f; DAW); Uterocontractant (1; X7211746).

**Indications:**

Burns (f; JFM); Cancer (1; DAD); Diarrhea (1; X16846708); Dysentery (f1; DAV; X16846708); Fever (f; DAD; JFM); Filariasis (1; WO3); Headache (f; DAV); Infection (1; WO2; WO3); Parasites (f1; DAV; DAW; WO3); Pediculosis (1; DAD; DAW; JFM); Pneumonia (f; DAD); Pulmonosis (f; DAW); Sores (f; DAD).

**Dosages:**

FNFF = !!! Fruit pulp widely consumed as food, including in U.S. markets; consumed fresh or as beverages, cakes, custards, ice cream, liqueurs, pies, and sherbets (FAC; TAN). Powdered seed mixed in lard to kill body lice (JFM); seed, stem, or root bark tincture active against bacteria (*Bacillus*, *Staphylococcus*) (WO3).

- Yucatanese apply leaf decoction to burns (JFM).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed seven titles alluding to toxicity of this species.

**Extracts:**

Antiprotozoal for *Entamoeba histolytica* with  $IC_{50} < 30 \mu\text{g/ml}$  (X16846708). Water extract from seeds exhibited utero-constrictive properties (due to gluco-steroids) *in vitro* in guinea pigs (X7211746).

**POND-APPLE (*Annona glabra* L.) ++****ANNONACEAE****Illustrations:**

fig 320, p 173 (LWW)

**Synonyms:**

*Annona australis* A. St.-Hil.; *A. chrysocarpa* Lepr. ex Guillemain & Perr.; *A. klainii* Pierre ex Engler & Diels; *A. klainii* Pierre ex Engler & Diels var. *moandensis* De Wild.; *A. laurifolia* Dunal; *A. palustris* L.; *A. peruviana* Humb. & Bonpl. ex Dunal; *A. uliginosa* Kunth.; fide (AVP; POR; USN).

**Common Names:**

Alligatorapfel (Ger.; POR); Alligator-Apple (Eng.; JFM; POR; USN); Annone des Marais (Fr.; POR; USN); Anona (Ma.; JFM); Anona del Campo (Ma.; Ecu.; JFM; LWW); Anona de

Río (Nic.; Sp.; POR); Anona Lisa (Sp.; POR); Anón de Puerco (Ma.; Pan.; Sp.; JFM; LWW; POR); Anon de Rio (Ma.; JFM); Anone des Marais (Fr.; POR); Anonillo (Ma.; Guat.; JFM; LWW); Anonillo Cabuye (Sp.; POR); Anón Liso (Sp.; Ven.; JFM; LWW; POR; USN); Araticu (Brazil; MPG); Araticu Brava (Brazil; MPG); Araticu Caca (Brazil; Ma.; JFM; MPG); Araticu Cortica (Ma.; JFM); Araticu da Agua (Ma.; JFM); Araticu de Boi (Ma.; JFM); Araticu de Praia (Ma.; JFM); Araticu do Brejo (Brazil; Ma.; Por.; AVP; JFM; MPG); Araticu do Mangue (Ma.; JFM); Araticu do Mar (Ma.; JFM); Araticum Bravo (Brazil; Por.; POR); Araticum Caca (Brazil; Por.; POR); Araticum-Cortiça (Brazil; Por.; POR); Araticum d'Água (Brazil; Por.; POR); Araticum da Lagoa (Brazil; Por.; POR); Araticum da Praia (Brazil; Por.; POR); Araticum de Boi (Brazil; Por.; POR); Araticum de Jangada (Brazil; Por.; POR); Araticum de Mangue (Brazil; Por.; POR); Araticum do Bréjo (Brazil; Por.; LWW; POR); Araticum do Mangue (Brazil; Por.; POR); Araticum do Rio (Brazil; Por.; POR); Araticunzeiro do Brejo (Brazil; Sp.; POR); Araticu-Pana (Brazil; Ma.; Por.; JFM; MPG; POR); Arbol de Corcho (Ma.; JFM); At'p' (Oaxaca; AUS); Bagá (Cuba; Dor.; Sp.; AVP; JFM; LWW; USN); Bình Bát (Vn.; POR); Bobwood (Bel.; Eng.; Ma.; JFM; LWW); Bois Flot (Fr.; AVP); Bunya (Ma.; JFM); Cachiman Cochon (Fr.; AVP; POR); Cajuda (Wi.; AUS); Caroáo (Brazil; Por.; POR); Catiguire (Ma.; JFM); Cayor (Ma.; JFM); Cayube (Ma.; JFM); Cayude (Ma.; JFM); Cayur (Dor.; Ma.; Pr.; AUS; JFM; LWW); Cayures (Pr.; AVP); Chirimoya Cimarrona (Ma.; Sp.; Ven.; JFM; LWW; POR); Chirimoya de los Pantanos (Sp.; POR); Corazon Cimarron (Ma.; Ven.; AUS; JFM); Corcho (Ma.; Pr.; JFM; LWW); Corkwood (Eng.; Ma.; Vi.; JFM; LWW; POR); Corossolier des Marais (Fr.; POR; USN); Corossol Marron (Haiti; Ma.; AVP; JFM); Corossol Sauvage (Ma.; JFM); Cortiça (Brazil; Por.; POR); Cortisso (Brazil; Por.; Sp.; POR); Courasotte (Dom.; Ma.; JFM); Courassol (Fr.; Ma.; AUS; JFM); Coyur (Pr.; LWW); Custard Apple (Ma.; JFM); Dog Apple (Ma.; JFM); Etotakwe (Creek; Seminole; AUS); Gasima (Garifuna; IED); Guanaba (Guat.; POR); Guanaba Cimmarron (Sp.; AVP); Guanabano Bobo (Ven.; LWW); Guanabana Cimarrona (Ma.; Nic.; JFM; LWW); Guanabana de Corcho (Ma.; JFM); Guanabana de Peco (Sp.; AVP); Guanabana Silvestre (Ma.; Sp.; AVP; JFM); Guanabano Bobo (Ma.; JFM); Kayuda (Dwi.; Ma.; JFM; LWW); Maak (Maya; AUS); Maçã de Cobra (Brazil; Ma.; JFM; POR); Mag (Maya; AUS); Mak (Ma.; Maya; AUS; JFM); Mamain (Eng.; Fr.; Mart.; AVP; POR); Mamin (Ma.; JFM); Mammier (Haiti; Ma.; AVP; JFM); Mamon de Perro (Ma.; Dor.; JFM); Mangrove Annona (Ma.; JFM); Mangrove Anona (Eng.; POR); Mangroven Annone (Ger.; POR); Manzana de Serpiente (Ma.; JFM); Mayos (Ma.; Col.; JFM; LWW); Monkey Apple (Eng.; Ma.; JFM; POR); Mulato (Brazil; Por.; POR); Palo Bobo (Cuba; Sp.; JFM; USN); Palo de Corcho (Ma.; JFM); Pond-Apple (Eng.; Vi.; JFM; LWW; POR; USN); Wasserapfel (Ger.; POR; USN); Water Apple (Ma.; JFM); Xmaac (Ma.; Mex.; JFM; LWW); Xmak (Ma.; Maya; Mex.; AUS; AVP; JFM); Zwampzuurzak (Ma.; JFM).

### Activities:

Abortifacient (f; MPG); Anthelmintic (f; MPG); Anticancer (1; X10192966; X15210069; X9599260); Anticancer, breast (1; X10192966; X9599260); Anticancer, pancreas (1; X10192966; X9599260); Anticarcinomic (1; X10192966; X15210069; X9599260); Antileukemic (1; WO3); Antimicrobial (1; X8569243); Antiproliferant (1; X15210069); Antitumor (1; WO3); Apoptotic (1; X15210069); Convulsant (f; JFM); Cyanogenic (1; MPG); Cytotoxic (1; X10192966; X5796462; X8569243; X9599260); Emetic (f; JFM); Fungicide (1; X8569243); Insecticide (1; JFM; MPG; X8569243); Larvicide (1; X16253435; X17137781); Molluscicide (1; X11315753); Narcotic (f; EB22:93); Pectoral (f; EB22:93); Pediculicide (1; JFM); Piscicide (f; EB22:93); Poison (f; DAW); Schistosomacide (1; X11315753); Sporicide (1; X8569243); Vermifuge (f; EB22:93).

### Indications:

Bacteria (1; X8569243); Burns (f; JFM); Cancer (1; WO3; X10192966; X15210069; X8569243; X9599260); Cancer, breast (1; X10192966; X9599260); Cancer, pancreas (1; X10192966;

X9599260); Colic (f; JFM); Coughs (f; JFM); Dermatoses (f; EB22:93); Diarrhea (f; EB22:93; JFM); Dysentery (f; JFM); Enterosis (f; JFM); Fungus (1; X8569243); Gastrosis (f; EB22:93); Hepatosis (f; JFM); HIV (1; X9584397); Hookworm (f; AUS); Infection (1; X8569243); Jaundice (f; DAW; JFM); Leukemia (1; WO3); Malaria (1; X16253435; X17137781; X8569243); Pediculosis (1; JFM); Phthisis (f; DAW); Pulmonosis (f; JFM); Rheumatism (f; EB22:93; JFM; MPG); Schistosomiasis (1; X11315753); Stomachache (f; EB22:93); Tuberculosis (f; DAW; JFM); Tumors (1; WO3; X10192966; X15210069; X9599260); Worms (f; EB22:93; MPG).

#### Dosages:

FNFF = !! Fruit pulp locally consumed out of hand, or made into jellies, etc. (FAC; JFM). 3 spoons strained leaf/flower decoction for jaundice (JFM); leaf/flower decoction for hepatosis, esp. jaundice (JFM); leaf decoction applied to burns (JFM); leaf tea taken for cramps, diarrhea, dysentery, and enterosis (JFM).

- Brazilians take leaf decoction for rheumatism and worms (JFM).
- Okinawans use mashed seeds to induce abortion (MPG).
- Yucatanese use fruit rind for lung ailments; fruit syrup taken in early tuberculosis (JFM).

#### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed seven titles alluding to toxicity of this species.

#### Extracts:

Liriodenine in wood inhibits cancer; cytotoxic (WO2; X5796462). Stem bark extract exhibits antimicrobial, antifungal, cytotoxic, insecticidal, and sporicidal activities; the main compound, kaur-16-en-19-oic acid, was found to be largely responsible for the biological activities (X8569243). Ethanolic seed and stem extracts significantly larvicidal for *Aedes aegypti* (LC(50) = 0.06 µg/ml(-) and LC50 value of 27 µg/l, respectively) (X16253435; X17137781). Two diterpenoid compounds, cunabic acid and ent-kauran-19-al-17-oic acid, show antiproliferant and apoptotic activity for liver cancer cells (>5 µM/l and >10 µM/l, respectively) (X15210069). Ethanolic seed extract molluscicidal for *Biomphalaria glabrata* (LD50 = 17.02) (X11315753). Annoglacins A and B from ethanolic leaf extracts were 1,000 and 10,000 times, respectively, more potent than adriamycin against human breast carcinoma (MCF-7) and pancreatic carcinoma (PACA-2) (X10192966; X9599260).

### SOURSOP (*Annona muricata* L.) ++

#### ANNONACEAE

#### Illustrations:

fig 21 (DAV); fig 37, p101 (L&W)

#### Synonyms:

*Annona bonplandiana* Kunth; *Annona macrocarpa* auct.; *Annona ceareaensis* Barb. Rodr.; *Annona macrocarpa* Wercklé; *Guanabanus muricatus* M. Gómez; fide (POR; USN).

#### Common Names:

Aathichakka (Mal.; WO2); Abrorfortunkum (Akim; KAB); Aduatungkungm (Twi; KAB); Aluguntungung (Ga; KAB); Alukutum (Krobo; KAB); Anona Amarillo (Mex.; KAB); Anona de Broquel (Ma.; JFM; KAB); Anona de Puntitas (Ma.; JFM); Anona en Bouclier (Ma.; JFM); Apare (Twi; KAB); Apre (Fanti; KAB); Araticu do Grande (Ma.; JFM); Araticum (Por.; POR); Araticu Manso (Ma.; JFM); Araticum do Grande (Brazil; Por.; POR); Araticum Grande (Brazil; Por.; USN); Araticum Manso (Brazil; Por.; USN); Brazilian Pawpaw (Eng.;

POR); Buah Sirsak (Malay; POR); Cabeça de Negro (Brazil; Por.; POR); Cabeza de Negro (Ma.; Mex.; JFM; KAB); Cachiman Épineux (Fr.; KAB; POR; USN); Catoche (Ma.; Ven.; JFM; L&W); Catucho (Ma.; Mex.; Ven.; JFM; KAB; POR); Ci Guo Fan Li Zhi (China; POR); Condessa (Brazil; Por.; POR); Coracao de Rainha (Brazil; Ma.; Por.; JFM; L&W; POR; USN); Corossol (Fr.; Haiti; Ma.; Réunion; JFM; KAB; L&W; POR); Corossol Épineux (Fr.; POR; USN); Corossolier (Fr.; Ma.; JFM; KAB; POR); Corossol Montagne (Ma.; KAB); Deboo (Twi; KAB); Dukumeporto (Fula; KAB); Durian Belanda (Malay; POR); Durian Makkah (Malay; POR); Durian Salat (Malay; POR); Fruta do Conde (Brazil; Por.; POR); Goyabrano (Pi.; KAB); Grande Corossol (Ma.; JFM; KAB); Graviola (Brazil; Por.; JFM; POR; USN); Guanaba (Guat.; Ma.; Sal.; JFM; L&W; POR); Guanábana (Cuba; Dor.; Mex.; Pr.; Sp.; KAB; POR; USN); Guanábano (Brazil; Pi.; Por.; Sp.; KAB; POR; USN); Guayabano (Tag.; POR); Gurusulu (Garifuna; IED); Guyabano (Tag.; POR); Huana-Huana (Conibo; RAR); Jaca de Para (Ma.; JFM); Jaca de Pobre (Brazil; Por.; POR; USN); Jaca do Pará (Brazil; Por.; POR; USN); Jangli Ata (Ben.; WO2); Kaoraosaly (Sakalave; KAB); Katuanoda (Sin.; KAB); Khanthalot (Laos; POR); Khièp Thét (Laos; POR); Mak Khieb Thet (Ic.; KAB); Mamphal (Mar.; WO2); Mang Cau Xiem (Ic.; KAB); Masasamba (Sa.; SOU); Mullanchakka (Mal.; WO2); Mullanjakka (Mal.; KAB; SKJ); Mullaraamaphala (Kan.; WO2); Mulluchitta (Tam.; KAB; SKJ); Mulluramphala (Kan.; KAB); Mulluseeta (Tam.; WO2); Mundlaseethaaphalamu (Tel.; WO2); Nangka Belanda (Malay; POR); Nangka Sabrang (Malay; POR); Nejo (Choco; IED; MPG); Nkrangmrobe (Ga; KAB); Nkrangmrobe (Twi; KAB); Op (Ma.; JFM); Pinha (Por.; POR); Pinha Azeda (Por.; POR); Popox (Ma.; JFM); Prickly Custard Apple (Eng.; POR; WO2); Pullippala (Tam.; KAB; SKJ; WO2); Sapadille (Fr.; KAB); Sapotille (Fr.; POR); Sauersack (Ger.; POR; USN); Sinini (Ma.; JFM); Sirkaya Belanda (Malay; POR); Sirsak (Malay; POR); Soen-Zakka (Ma.; JFM); Sorsaka (Dwi.; Ma.; JFM; L&W); Soursap (Eng.; Sierra Leone; POR); Soursapi (Eng.; Sierra Leone; POR); Soursop (Eng.; KAB; POR; USN); Stachelannone (Ger.; POR; USN); Suiti (Cuna; IED; MPG); Tak-Ob (Ma.; JFM); Tieb Parang (Ic.; KAB); Tiep Banla (Khmer; POR); Tiep Barang (Khmer; POR); Toge Banreishi (Japan; TAN); Vilatinuma (Ker.; SKJ); Vilattinuna (Mal.; KAB); Vilayatinuna (Mal.; WO2); Vo (Ewe; KAB); Voti (Ewe; KAB); Votsi (Ewe; KAB); Yabana (Tag.; POR); Yevunyakle (Krepi; KAB); Zapote Agrio (Sp.; POR); Zapote de Viejas (Ma.; JFM); Zuuzak (Dutch; Dwi.; Ma.; Sur.; JFM; L&W; POR).

### Activities:

Analgesic (f; DAD; JFM); Anthelmintic (f; WO2); Antibilious (f; DAW); Antidepressant (1; X9401954); AntiHIV (1; X9687085); Antiinflammatory (f; WO2); Antimalarial (1; WO3); Antimitotic (1; WO3); Antiparasitic (1; X1798795); Antiplasmodial (1; WO3); Antiscorbutic (f; MPG); Antiseptic (1; WO3); Antispasmodic (f; KAB; WO2); Artemicide (1; MPG); Astringent (f; DAW; KAB); Cardiodepressant (1; MPG); Cardiotonic (f; DAV); Cicatrizant (f; DAW); CNS-Depressant (f; WO2); Cyanogenic (f; EB22:96); Cytotoxic (1; WO3; X11473425; X11975482; X7494150); Depurative (f; EB30:122); Emetic (f; DAW; KAB); Febrifuge (f; DAW); Filaricide (1; WO3); Fungicide (1; X161407); Hemostat (f; WO2); Hypotensive (1; EB30:122; MPG); Insecticide (f; DAW); Lactagogue (f; JFM); Molluscicide (1; X11315753; X16401556); Parasiticide (f1; KAB; MPG; WO2); Pectoral (f; DAW); Pediculicide (f; DAW); Piscicide (f; DAW); Plasmodicide (1; MPG; WO3); Sedative (f; DAV; EB22:96; RAR); Soporific (f; DAW); Spasmogenic (1; MPG); Stomachic (f; DAW); Suppurative (f; KAB); Tranquilizer (f; EB22:96); Trichomonacide (1; MPG); Uterotonic (f; MPG); Vermifuge (f; DAW).

### Indications:

Aphtha (f; KAB; WO2); Arthrosis (f; MPG); Asthma (f; JFM; MPG); Atony (f; NAD); *Bacillus* (1; WO3); Bacteria (1; WO3); Biliousness (f; DAW); Bleeding (f; WO2); Boils (f; DAW); Catarrh (f; WO2); Childbirth (f; DAW; MPG); Cholecystosis (f; EB22:96); Colds (f; JFM); Coughs (f; DAW; KAB); Cramps (f; DAD; KAB); Depression (1; X9401954); Dermatitis (f;

DAW; MPG); Diabetes (f; DAV); Diarrhea (f; DAW); Dysentery (f; DAW; KAB); Dyslactea (f; JFM); Dyspepsia (f; DAW); Dysuria (f; JFM; MPG); Enterosis (f; MPG; NAD); Fever (f; DAW; KAB); Filaria (1; WO3); Flu (f; DAW); Fungus (1; X161407); Gastrosis (f; DAW); Hepatosis (f; JFM); High Blood Pressures (f1; DAW; EB30:122; MPG); HIV (1; X9687085); Infection (f1; DAW; WO3; X9687085); Inflammation (f; WO2); Insomnia (f; DAV; DAW; EB22:96; RAR); Jaundice (f; JFM); Leprosy (f; MPG); Malaria (1; MPG; WO3); Mycosis (f; DAW; MPG); Nephrosis (f; DAW; MPG); Nervousness (f; DAW); Pain (f; DAD; JFM; MPG); Palpitations (f; DAW); Pediculosis (f; DAW); Pellagra (f; DAW); Ptomaine (f; NAD); Rheumatism (f; IHB); Rickets (f; DAV); Ringworm (f; EB30:122); Schistosomiasis (1; X11315753; X16401556); Scurvy (f; EB25:436); Sores (f; DAW); Spasms (f; KAB; DAW; WO2); *Staphylococcus* (1; WO3); Stones (f; JFM); Syncope (f; DAW); Trichomonas (1; MPG); Ulcers (f; DAW; MPG); Urethrosis (f; MPG); Vaginosis (1; MPG); Worms (f; DAW; WO2); Wounds (f; WO2).

### Dosages:

FNFF = !!! Fruit pulp widely consumed as food, including in U.S. markets; consumed fresh or as beverages, custards, ice cream, liqueurs, sherbets, used in Cuba's "champola de guanábana" and Philippines "nata dy guayabana"; young shoots eaten steamed with rice (FAC; TAN). Powdered green fruit used for aphthae (stomatitis) and dysentery (KAB). Leaf tea anthelmintic, antidysenteric, febrifuge, stomachic, and sudorific, given with sugar for nervousness or palpitations (WO2). Sudorific leaves and flowers for kidney troubles (WO2). Seeds crushed and used to kill lice (DAV).

- Flowers or flower buds used for cough in Réunion (KAB).
- Roots considered antispasmodic in Réunion (KAB).
- Trinidadians use for high blood pressure (X17040567).

### Downsides:

Repeated consumption could cause the neuronal dysfunction and degeneration underlying the West Indian parkinsonian syndrome (X11835443). As of July 2007, the FDA Poisonous Plant Database listed 16 titles alluding to toxicity of this species.

### Extracts:

Ethanollic leaf extract inhibits *Plasmodium falciparum*; molluscacidal for *Biomphalaria glabrata* (LC50 9.32 µg ml<sup>-1</sup>; LD50 = 8.75)(X11315753; X16401556). Seed, stem, or root bark tincture active against bacteria (*Bacillus*, *Staphylococcus*) (WO3). Acetogenins from the seeds and leaves show significant cytotoxic activity *in vitro* against two human hepatoma cell lines (X11473425; X11975482; X7494150). Ethanollic extract inhibitory for HIV at 1 mg/ml (X9687085).

## CUSTARD APPLE (*Annona reticulata* L.) ++

### ANNONACEAE

### Illustrations:

fig 38, p 103 (L&W)

### Synonyms:

*Annona humboldtiana* Kunth; *A. humboldtii* Dunal; *A. laevis* Kunth; *Annona longifolia* Sessé & Moç.; fide (POR; USN).

### Common Names:

Aanta (Danuwar; Mooshar; NPM); Aanti (Nepal; NPM); Aninuna (Tam.; KAB; WO2); Annone Réticulée (Fr.; POR; USN); Anon (Cr.; Ma.; Pan.; JFM; L&W); Anona (Cuba; Goa;



Ma.; Por.; Sp.; JFM; KAB; POR; WO2); Anona Colorado (Guat.; Ma.; Sal.; Sp.; JFM; L&W; POR); Anona Corazón (Sp.; POR; USN); Anona de Corazón Rojo (Guat.; Sp.; POR); Anona de Cuba (Sp.; POR); Anona de Redecilla (Hon.; Ma.; Nic.; Pr.; Sp.; AVP; JFM; L&W; POR); Anona de Seso (Guat.; Sp.; POR); Anona Pelon (Sp.; POR); Anona Roja (Guat.; Ma.; Sp.; JFM; POR); Anona Rosada (Sal.; Sp.; POR); Anonas (Pi.; Tag.; KAB; POR); Anon de Ceso (Ma.; JFM); Anone (Réunion; KAB); Anone en Réseau (Fr.; KAB); Anoneira (Por.; POR); Anonilla (Ma.; JFM); Anonillo (Sp.; POR); Anon Injerto (Col.; Sp.; IED; POR); Anón Manteca (Cuba; Dor.; Sp.; POR); Anon Pelon (Col.; Ma.; JFM; L&W; POR); Anta (Hindi; WO2); Anti (Nepal; POR); Araticum (Por.; AVP); Araticum Ape (Ma.; Por.; JFM; POR); Araticum do Mato (Ma.; Por.; JFM; POR); Awza (Burma; KAB); Barhial (Oriya; WO2); Binh Bat (Vn.; POR); Biribá (Brazil; Por.; USN); Boeahnona (Ma.; JFM); Buah Nona (Malaya; EFS; POR); Bullock's Heart (Eng.; NPM; POR; SKJ; USN); Bull's Heart (Eng.; POR); Cachiman (Fr.; POR); Cachiman Coeur-de-Boeuf (Fr.; Guad.; Haiti; Ma.; AVP; JFM; POR); Cachimen (Wi.; KAB); Cahuex (Ma.; JFM); Chirimoya (Ven.; L&W); Chirimoya Roja (Bol.; Ma.; Sp.; JFM; POR); Coeur-de-Boeuf (Fr.; Jam.; Ma.; Réunion; Wi.; JFM; KAB; L&W; POR; USN); Common Custard Apple (Eng.; POR); Condessa (Por.; AVP); Coração de Boi (Brazil; Por.; POR); Corasao de Boi (Brazil; L&W); Corazon (Ma.; Pr.; JFM; KAB); Corazón de Buey (Sp.; POR; USN); Corosolier Reticule (Ma.; JFM); Corosol Reticule (Wi.; KAB); Corossol Reticulé (Fr.; POR); Corossol Sauvage (Fr.; AVP; POR); Custard Apple (Eng.; NPM; POR; USN); Fruta de Condessa (Brazil; Por.; USN); Fruta do Conde (Brazil; Por.; USN); Gom (San.; KAB; WO2); Graviola (Brazil; Por.; POR; X10757290); Gyurishiri (Japan; TAN); Gyuushinri (Japan; POR); Hobohobo (Sakalave; KAB); Ilama (Mex.; KAB); Jamaica Apple (Eng.; Ma.; JFM; POR); Kasjoema (Dwi.; Ma.; Sur.; AVP; JFM; L&W); Khan Tua Lot (Laos; POR); Krishnabeejam (Sanskrit; WO2); Krishnabija (Sanskrit; KAB); Lavali (Sanskrit; WO2); Lavani (Sanskrit; WO2); Lona (India; EFS); Lonang (India; Malay; EFS; POR); Louna (Hindi; SKJ); Luvuni (Ben.; Hindi; POR; WO2); Mamalier (Fr.; Wi.; KAB); Mamán (Sp.; POR; USN); Mamon (Cuba; Dor.; Sp.; JFM; KAB; L&W; POR); Manilanilam (Mal.; KAB; WO2); Manilayatta (Tam.; KAB); Manilvatta (Tam.; WO2); Manua (Malaya; KAB); Manzana de Ilán (Sp.; POR); Mean Bat (Khmer; POR); Milolo (Por.; POR); Mo Bat (Khmer; POR); Mruduphalam (Sanskrit; KAB; WO2); Nagnewa (Hindi; Mun.; WO2); Nena (Oriya; WO2); Nettle Custard Apple (Eng.; Ma.; JFM; KAB; POR); Netzannone (Ger.; POR; USN); Neua (Oriya; KAB); Niu Hsin Li (China; TAN); Niu Xin Fan Li Zhi (China; POR); Niu Xin Guo (China; POR); Niu Xin Li (China; POR); Noi Nong (Thai; POR); Nona (Ben.; Hindi; Malaya; KAB; POR; SKJ; TAN; WO2); Nona Capri (India; Malaya; EFS; KAB); Nona Kapri (Malay; POR); Ochsenherz (Ger.; POR; USN); Ochsenherz Apfel (Ger.; EFS; POR); Oopchi (Ma.; JFM); Ox Heart (Eng.; USN); Pac (Ma.; JFM); Parankichchka (Mal.; KAB; WO2); Petit Corossol (Fr.; EFS); Pox (Ma.; JFM); Qua Na (Vn.; POR); Raamaaphal (Guj.; Kan.; Mar.; WO2); Raamaaphalam (Sanskrit; WO2); Raamaaphalamu (Tel.; WO2); Raamachchita (Mal.; WO2); Raamaphal (Nepal; POR); Raamaseethaaphalamu (Tel.; WO2); Raamopholo (Oriya; WO2); Raamositaapholo (Oriya; WO2); Raamsita (Tam.; WO2); Raktavatch (Sanskrit; KAB); Ramachchita (Mal.; KAB); Ramachita (Tam.; KAB); Ramaphala (Kan.; KAB); Ramaphalamu (Tel.; KAB); Ramasitaphalamu (Tel.; KAB); Ramawhaya (Sanskrit; KAB); Ramopholo (Oriya; KAB); Ramositapholo (Oriya; KAB); Ramphal (Ben.; Guj.; India; Mar.; EFS; KAB); Rinyon (Ma.; Ven.; JFM; KAB); Saramuyo (Mex.; Sp.; POR); Sita Phal (Nepal; NPM); Srii Raamaphal (Nepal; POR); Sugar Apple (Eng.; NPM); Sweetsop (Eng.; EFS; POR); Tsulipox (Ma.; JFM); Tzumuy (Ma.; JFM); Vasanta (Sanskrit; KAB); Vlathi (Mal.; WO2); Voankobohobo (Hova; KAB); Wild Custard Apple (Bel.; AAB); Zulipox (Ma.; JFM).

### Activities:

Anthelmintic (f; KAB; NPM; WO2); Anticancer (1; X12697268; X16154156; X9564733); Antiinflammatory (f; WO2); Antitumor (1; WO2); Antineoplastic (1; X12697268; X16154156);

Astringent (1; EFS; NPM); Cytotoxic (1; X12697268; X16154156; X9564733); Insecticide (1; AAB; NPM; WO2); Pediculicide (f; JFM); Poison (f; EFS); Purgative (f; WO2); Tonic (f; EFS; IED; WO2); Vermifuge (f; EFS; WO2).

**Indications:**

Abscesses (f; JFM); Boils (f; AAB; JFM); Bruises (f; AAB); Cancer (1; X12697268; X16154156; X9564733; WO2); Cancer, bladder (1; X12697268; X16154156); Colic (f; JFM); Coughs (f; AAB); Dandruff (f; AAB); Dermatitis (f; AAB); Diarrhea (f; JFM; NPM); Dysentery (f; JFM; NPM); Epilepsy (f; IED; JFM); Fever (f; AAB; JFM); Fracture (f; AAB); Inflammation (f; JLH; WO2); Lice (f; JFM); Malaria (f; JFM); Neurosis (f; JFM); Pediculosis (f; JFM); Sores (f; JFM); Sprains (f; AAB); Stomatitis (f; AAB); Strain (f; AAB); Swelling (f; AAB); Syphilis (f; JFM); Tumors (f1; JLH; X12697268; X16154156; X9564733; WO2); Vaginitis (f; JFM); VD (f; JFM); Worms (f; EFS; KAB; NPM; SKJ; WO2).

**Dosages:**

FNFF = !!! Fruits edible (NPM). Fruit pulp widely consumed as food, including in U.S. markets; consumed fresh or as beverages, custards, deserts, ice cream, milkshakes, sherbets, etc. (FAC; TAN). Crushed leaves applied to tumors (JFM; JLH). Leaf astringent; leaf decoction for vaginal inflammation and sores; green fruit and bark decoction for diarrhea and dysentery (JFM). Green fruit used for diarrhea, dysentery, splenomegaly, and worms (WO2). Ripe fruit pulp applied to abscess, boils, and sores (JFM); pulp taken for biliousness, nausea, and thirst (WO2). Crushed seeds used for lice (keep away from eyes!) (JFM). Seeds abortifacient, insecticide, and pediculicide (WOI).

- Panamanians use the roots for epilepsy (IED).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed eight titles alluding to toxicity of this species.

**Extracts:**

Squamocin and annonacin from seed extract was cytotoxic to all cancer lines tested and in addition arrested T24 bladder cancer cells at the G1 phase and caused selective cytotoxicity on S-phase-enriched T24 cells (X12697268; X16154156).

**SWEETSOP (*Annona squamosa* L.) ++**

**ANNONACEAE**

**Illustrations:**

fig 30, p 105 (L&W); p 91 (NPM); pl 30, 30A (KAB)

**Synonyms:**

*Annona asiatica* L.; *A. glabra* Forssk.; *A. squamata* (in NPM); *Annona cinerea* Dunal; *Annona forskahlii* DC.; *Annona triloba*; *Guanabanus squamosus* M. Gómez; *Xylopiya frutescens* Sieb. ex Presl.; fide (EFS; POR; USN).

**Notes:**

I often speak of bibliographic echoes, but today I experienced and describe for you a special type, the bibliographic circle or "autoecho." I deleted the following bullet from the dosage section in this write-up: "Panamanian Indians use the leaves to extract Guinea worms" (JFM). That is what Morton (1977, 1981) said, and I quoted and cited her as JFM. But she was quoting me, selectively, saying things one might infer from my book, which were not, however, correct. I went to Julia Morton's great book and found that, in this case, she was quoting me, as

per footnote, referring to my *Isthmian Ethnobotanical Dictionary* (IED). Here's what I really said there: "The edible fruits are applied to contusions as a cataplasm. The leaves serve as a barbasco, as a poultice to heal ulcers and boils, and to kill lice and extract guinea worms. Crushed leaves, applied to a fainted person's nostrils, are said to hasten revival. On the other hand, in Colombia, leaves are placed under children's pillows so they will sleep better (!). The seeds are insecticidal, and said to kill lice" (JAD; IED).

All of my sentences except one were compiled from the literature. Yes, 35 years ago, as today, I had a lot of special symbols in my manuscripts. The symbol (!) was used back then to mean that this was my personal observation; yes, some of my Colombian contacts said that they put the leaves under the pillow to make a child sleep sounder, just like some Peruvians used *Brugmansia* leaves. I haven't tracked my own comment back farther but I think most of my guinea worm comments were lifted from African and Asian sources, even though the plant is apparently native to America. Regrettably I did not reference every sentence then, as I almost do today. Tropical Americans are more plagued by bot flies, as am I myself today as I redraft this write-up on inauguration day, 2005. Yes, I still have a big lump on my leg, sometimes still leaking blood, from my last visit to Peru in October. Surgery was performed (\$125) a couple weeks ago and the no longer recognizable maggot is gone (I had suffocated him with nail polish in November), but the edema and inflammation persist. Maybe I'll try the leaves next time and add a (!).

Small beetles, mostly *Nitidulidae*, are natural pollinators of atemoya (*Annona squamosa* L. × *A. cherimola* Mill. hybrids; custard apple) flowers but commercial atemoya growers often need to carry out labor-intensive hand pollination to produce enough high-quality fruit. Many Australian rainforest plants are also beetle pollinated. These native beetles occurred reliably enough in crops near rainforest to have a positive effect on the quantity of fruit produced but their contribution was not great enough to satisfy commercial production needs. (X16156571).

### Common Names:

Aant (Majhi; Nepal; NPM); Agrimakhya (Sanskrit; KAB); Ahate (Mex.; Sp.; POR); Ajate (Ma.; JFM); Allier (Fr.; KAP); Amesa (Burma; KAP; NAD); Amritakay (Tulu; KAB); Amritaphala (Kan.; KAB); Anan (Guj.; KAB); Annone Écailleuse (Fr.; USN); Anoda (Sin.; Sri.; KAB); Anón (Col.; Cuba; Dor.; Guat.; Pr.; Sp.; JFM; JTR; KAB; POR; USN); Anona (Guat.; Peru; Sp.; EGG; POR); Anona Blanca (Dor.; Guat.; Hon.; Sp.; POR; USN); Anona con Excamas (Pr.; KAB); Anona de Castilla (Sal.; Sp.; POR); Anona de Guatemala (Nic.; Sp.; AVP; POR); Anona Scariosa (It.; EFS); Anón Candonga (Dor.; Sp.; POR); Anon de Azucar (Col.; Sp.; JFM); Anon Domestico (Col.; Sp.; JFM; L&W); Anone Ecailleuse (Fr.; KAB); Antacheecha (Mal.; KAB); Anuram (Guj.; KAB); Anusa (Guj.; NAD); Apple Bush (Eng.; JFM); Apre (Fanti; Twi; KAB); Araticut-Itaia (Ma.; JFM); At (Dec.; KAB); Ata (Assam; Ben.; Brazil; Ma.; Por.; JFM; KAP; L&W; MPI; POR; USN; WO2); Atakatal (Assam; WO2); Atasitaphal (Arab.; Dec.; Guj.; Hindi; Mar.; DEP; KAB); Ate (Cuba; AVP); Ateira (Por.; POR); Ates (Tag.; KAB; POR); Ath (Kon.; WO2); Ati (Ma.; Sp.; JFM); Atis (Tag.; POR); Ato (Oriya; KAB; WO2); Atripya (Sanskrit; KAB); Atta (Sin.; Tam.; KAB; NAD; WO2); Attachchakka (Mal.; KAB); Atte (Gabon; JLH); Attier (Fr.; Réunion; AVP; EFS; KAB); Auza (Burma; KAB); Awsa (Burma; DEP); Bakhubijaka (Sanskrit; KAB); Banjhi (Danuwar; NPM); Ban Reishi (Japan; KAP; POR; TAN); Behli (Nwp.; DEP; KAB); Bor (Mun.; WO2); Borofa (Twi; KAB); Borordaru (Mun.; KAB); Buah Nona (Malaya; EFS; POR); Cabeça de Negro (Brazil; Por.; POR); Cachiman (Arg.; Fr.; AVP; JFM); Cachiman Cannelle (Fr.; Haiti; AVP; JFM; POR); Chiramoya (Sp.; JFM); Chirimoya(o) (Ecu.; Guat.; Sp.; L&W; POR; USN); Chirimoya Verugosa (Sp.; POR); Chirmoya (Guat.; Ecu.; L&W); Condessa (Por.; POR); Coração de Boi (Brazil; Por.; POR); Custard-Apple (Eng.; KAP; USN); Daru (Mun.; WO2); Duranji (Kan.; KAB); Fan Li Zhi (China; POR); Fruta da Condessa (Por.; POR); Fruta de Conde (Brazil;

AVP; MPB); Fruta de Condessa (Por.; Sp.; JFM; POR); Fruta del Conde (Brazil; Por.; Sp.; L&W; POR; USN); Fruta do Conde (Brazil; Por.; POR; USN); Fruteira de Conde (Fr.; Por.; JFM; POR); Fruto do Condo (Por.; JFM); Gandagatra (Sanskrit; KAB; MPI); Gandagatramu (Tel.; KAB); Gandaragataram (Sanskrit; WO2); Gandhagaalaramu (Tel.; WO2); Gandhagatra (India; Sanskrit; EFS; POR); Guanabane (Fr.; KAB); Gutea (Sanskrit; NAD); Hattier (Fr.; KAB); Honigapfel (Ger.; EFS); Kachiman Kanèl (Creole; Haiti; VOD); Kaneelappel (Dutch; Ma.; Sur.; AVP; EFS; JFM; POR); Kaj (Iran; DEP; KAB); Katal (Assam; DEP; KAB; NAD); Khièb (Laos; POR); Konkony (Sakalave; KAB); Krishnabeeja (Sanskrit; MPI); Krishnabija (Sanskrit; KAB); Luna (Ben.; DEP; KAB); Madal (Ben.; SKJ); Maka ya Gala (Newari; NPM); Mak Kieb (Annam; KAB); Mandargom (San.; DEP; KAB); Mandar Kom (San.; WO2); Mang Cao Ta (Annam; KAB); Mannappuwa (Malaya; KAB); Maria Baise (Annam; KAB); Mela Canella (It.; POR); Mocuyo (Col.; Sp.; POR); Nangwi (Ga; KAB); Neoa (Mun.; Nagpura; KAB); Ngassie (Ga; KAB); Ngawyei (Ga; KAB); Noina (Thai; POR); Nyankongma (Twi; KAB); Pedda Kalinga (Tel.; SKJ); Phan Le Chi (China; Ic.; KAB; KAP); Pinha (Brazil; Por.; AVP; JFM; MPB; POR; USN); Pinha da Bahia (Por.; POR); Pinheira (Ma.; Por.; AVP; JFM; POR); Pomme-Canelle (Fr.; Gren.; Guad.; Haiti; AVP; EFS; JFM; L&W; USN); Pomo Cannella (It.; EFS; POR); Ponn Kanèl (Creole; Haiti; VOD); Qua Na (Annam; KAB); Raamaphal (Hindi; POR); Rahmapfel (Ger.; USN); Ramphal (India; EFS); Rinón (Sp.; Ven.; POR); Rinyon (Sp.; JFM); Sampa (Mun.; KAB); Saramulla (Ma.; JFM); Saramuya (Guat.; L&W); Saramuyla (Ma.; Sp.; JFM); Sarikaya (Malay; POR); Saripha (Arab.; Mooshar; Nepal; KAB; NPM); Sariphal (Nepal; POR); Sarupa (Hausa; KAB); Schuppenannone (Ger.; POR; USN); Scopappel (Dutch; Dwi.; AVP); Seetaahalamu (Tel.; WO2); Seetapandu (Tel.; MPI; NAD); Seetaphal (Ben.; Guj.; Hindi; Mar.; WOI); Seethaaphalo (Oriya; WO2); Seethaaphalum (Sanskrit; WO2); Seethaphala (Kan.; Sanskrit; MPI; WO2); Seethappazham (Tam.; WO2); Seri Kaya (Malay; POR); Sharifa (Arab.; Hindi; India; Iran; Nwp.; Pun.; Yunani; EFS; KAP; SKJ; WO2); Sharifah (Iran; KAB); Shariiphaa (Hindi; Nepal; POR); Sharipha (Danuwar; NPM); Shariphal (Hindi; Nepal; KAB); Shubappel (Ma.; JFM); Shubba (Sanskrit; EFS; POR); Shurifa (Iran; EFS); Sirikayu (Sumatra; KAB); Sirpa (Mal.; KAB); Sirpha (Mal.; DEP; NAD); Sitaaphal (Nepal; POR); Sitapalam (Mal.; Tam.; DEP; KAB; NAD); Sitapandu (Tel.; DEP; KAB); Sitaphal (Dec.; Guj.; Hindi; Kan.; Lambadi; Mah.; EFS; KAB; NAD; POR; SKJ); Sitaphala (Kan.; Sanskrit; KAB; MPI); Sitaphalam (Sanskrit; KAP); Sitaphalamu (Tel.; KAB); Sitaphalo (Oriya; KAB); Siththa (Tam.; KAP); Sitsphazam (Tam.; MPI); Skopappel (Ma.; JFM); Srikaja (Ma.; JFM); Srikaya (Malaya; KAB; POR); Subha (Sanskrit; KAB); Suda (Sanskrit; KAB; NAD); Sugar-Apple (Eng.; EFS; JFM; USN; VOD); Süssack (Ger.; USN); Sutakanni (Mal.; KAB); Sweet Apple (Eng.; AVP); Sweetsop (Eng.; Scn.; AH2; JFM; USN); Tiep (Annam; KAB); Tzalmuy (Ma.; JFM); Tzalmuy (Ma.; JFM); Vaidehivallabha (Sanskrit; KAB); Yevunyikleng (Ewe; KAB); Zimtapfel (Ger.; POR); Zuckerapfel (Ger.; EFS; KAP; NAD; POR; USN).

### Activities:

Abortifacient (f; DAD; DEP; KAB; KAP; WOI); Adrenergic (1; WO2); Anthelmintic (f1; KAP; WO2); Antiaggregant (1; X12398544); Anticancer (1; X15964712; X2348205; X8991957; X9214729; X9542173; X9629470); Anticancer, breast (1; X2348205); Anticancer, pancreas (1; X9214729; X9542173); Anticancer, prostate (1; X8991957); Antidiabetic (1; X15036485; X16230844; X16865205); Antifertility (f; MPB); AntiHIV (1; X8786370); Antiinflammatory (1; X16254820); Antileukemic (1; WO3); Antimalarial (f1; WO3); Antimicrobial (1; X11838282; X15964712; X16753909); Anti-NO (1; X15573531); Antioxidant (1; X15573531; X16865205); Antiradicular (1; X15573531); Antiseptic (f1; MPB; X15886460; X16753909); Antispasmodic (f1; MPG; VOD; WO2); Antitumor (f1; JFM; KAP; WO2; X15886460); Antiviral (1; WO2); Apoptotic (1; X15886460); Astringent (f; DAD; KAP); Bactericide (1; WO2; X16753909); Bronchodilator (1; MPG); Calcium-Channel-Blocker (1; X16784851); Cardiotoxic (1; MPG; WO2);

X16230844); Cathartic (f; KAB); Contraceptive (f1; MPG); Cytotoxic (1; WO3; X15964712; X2348205; X8991957; X9214729; X9542173; X9629470); Diuretic (f; DAD; KAP; WO2); Emmenagogue (f; JFM); Fungicide (1; WO3); Hepatoprotective (1; X16230844); Hypertensive (f; WO2); Hypocholesterolemic (1; X15848023; X16230844); Hypoglycemic (1; X15848023; X16865205); Hypotriglyceridemic (1; X15848023); Immunomodulator (1; X16254820); Insecticide (f1; DAD; KAP; WO2; X11838282); Insectifuge (1; MPB; MPG; WO2); Larvicide (1; WO2; X8468579); Laxative (f1; WO2); Mosquitocide (1; X12635713); Myorelaxant (1; WO2); Myotonic (f; KAB; WO2); Orexigenic (f; JFM); Oxytocic (1; WO2); Pectoral (1; WO2); Pediculicide (f1; DAD); Pesticide (1; X11838282); Piscicide (1; NPM; WO2); Purgative (f; DAD; EFS; KAP; NPM); Sedative (f; IED); Soporific (f; DAD); Spasmogenic (1; MPG); Stomachic (f; DAD); Suppurative (f; DAD; KAP; WO2); Syncope (f; JFM); Tonic (f; JFM; KAP); Uterotonic (1; KAP; MPG); Vasorelaxant (1; X16784851); Vermifuge (f; DAD; EFS; JFM).

### Indications:

Albuminuria (f; JTR; MPG); Alopecia (f; NPM); Anorexia (f; JFM); Asthma (f; WO2); Atony (f; KAP); *Bacillus* (1; WO2; X16753909); Bacteria (1; WO2; X16753909); Bilioussness (f; KAB); Boils (f; KAB); Bruises (f; DAD; IED); Cancer (f1; JFM; JLH; KAP; WO2; X15886460; X15964712; X2348205; X8991957; X9214729; X9542173; X9629470); Cancer, breast (1; X2348205); Cancer, pancreas (1; X9214729; X9542173); Cancer, prostate (1; X8991957); Cancer, skin (f1; JLH; X15886460); Carbuncles (f; DAD); Carcinoma (f1; WO2); Cardiopathy (1; MPG; WO2; X16230844); Catarrh (f; MPG); Chancre (f; DAD); Chills (f; JFM); Colds (f; DAD; JFM); Colitis (f; JFM); Constipation (f1; KAP; WO2); Cramps (f1; DAD; MPG; VOD; WO2); Cystosis (f; EGG); Depression (f; DEP; KAB); Dermatitis (f; MPG); Diabetes (1; X15036485; X15848023; X16230844; X16865205); Diarrhea (f; DAD; KAP; MPG; NPM); Dysentery (f; KAP; NPM; VOD); Dyspepsia (f; DAD; JFM; KAP; MPG; VOD); Enterosis (f; VOD); *Escherichia* (1; WO2); Fever (f; DAD; DEP; EFS; JFM); Fits (f; WO2); Flu (f; MPG); Fungus (1; WO3); Gas (f; JFM); Gastrosis (f; VOD); Gonorrhea (1; X15668617); Gout (f; JTR); Guinea Worms (f; JFM); Headache (f; JFM; NPM); High Cholesterol (1; X15848023; X16230844); High Triglycerides (1; X15848023); HIV (1; X8786370); Hyperglycemia (1; X15848023; X16865205); Hyperuricemia (f; JTR); Hysteria (f; KAP; WO2); Infection (f1; MPB; WO2; WO3; X15886460; X15964712; X16753909); Inflammation (1; X16254820); Insomnia (f; IED; MPB); Leukemia (1; WO2; WO3); Lice (1; X11414452); Low Blood Pressure (f; WO2); Malaria (f1; WO3); *Micrococcus* (1; WO2); Migraine (f; MPB); Mycosis (1; WO3); Nausea (f; KAB; WO2); *Neisseria* (1; X15668617); Pain (f; VOD); Pediculosis (f1; DAD); Proctosis (f; WO2); Prolapse (f; WO2); Proteus (1; WO2); Puerperium (f; DAD); Rheumatism (f; DAD; JFM); *Salmonella* (1; WO3); Sarcoma (1; WO2); Sores (f; JFM; KAB); Sore Throat (f; JFM); Spasms (f1; DAD; MPG; VOD; WO2); Spine (f; DEP; KAB); Splenosis (f; VOD); *Staphylococcus* (1; MPG; WO3; X16753909); Stomachache (f; VOD); Syncope (f; DAD; KAP); Syphilis (f; DAD); Tumors (f; DAD; JLH; KAB); Ulcers (f; DAD); VD (f1; DAD; X15668617); Vertigo (f; VOD; WO2); Worms (f1; DAD; EFS; JFM; KAP; MPG; WO2).

### Dosages:

FNFF = !! Fruits eaten raw, made into drinks, liqueurs, sherbets, ice cream, jellies, or jams, sometimes mixed with wine, and in West Indies, may be made into a type of cider (CRC; NPM). Seeds, fruits, and leaves are insecticidal, used to remove head-lice and prevent bed-bugs; seeds used for fish-poison (CRC). 24–48 g fruit (KAP); 2–5 g root powder (KAP).

- Asian Indians consider the seeds abortifacient, insecticide, and pediculicide (WOI).
- Asian Indians deem the fruit astringent, febrifuge, myostimulant, hematogenic, pectoral, and tonic, used for diarrhea, dysentery, nausea, and vertigo (WO2).
- Brazilians apply bruised leaves to wounds, to the head for headache and migraine (MPB).

- Colombians place the leaves under a baby's pillow to improve sleep (IED).
- Cubans take leafy shoot decoction, with or without basil, for chills and gas (JFM).
- Dominicans use leaf tea for splenic pains (VOD).
- Dominicans use tea (any part) with basil for dysentery; leaves with clove for enterosis (VOD).
- Grenadines take leaf decoction as emmenagogue (JFM).
- Haitians boil leaf buds with whites of orange for dysentery, dyspepsia, and gastrostis (VOD).
- Haitians suggest mashed leaves with salt for boils (VOD).
- Haitians wisely suggest fruits with ginger for vertigo (VOD).
- Indians and West Indians apply leaves with sea salt to tumors (JLH) with some rationale: corydine in leaves active against carcinoma, leukemia, and sarcoma (WO2).
- Nepalese apply leaf paste with mustard oil for baldness (NPM).
- Nepalese suggest 6 tsp mashed fruit pulp for diarrhea and dysentery (NPM).
- Nepalese use leaf paste mixed with mustard oil for alopecia (NPM).
- Panamanians use leaves to dispel maggots.
- Peruvians suggest the bud decoction for bladder problems (EGG).

#### Downsides:

Powdered seed applied to uterus can irritate and cause abortion; in the eye it can cause blindness (JFM). Reports that a prisoner destroyed the cornea of both eyes with powder of the seed (KAB). As of July 2007, the FDA Poisonous Plant Database listed 15 titles alluding to toxicity of this species.

#### Extracts:

Ent-kaur-16-en-19-oic acid and 16 $\alpha$ -hydro-19-al-ent-kauran-17-oic acid inhibited rabbit platelet aggregation at 200  $\mu$ M. (X12398544). EO active against *Bacillus*, *Escherichia*, *Micrococcus*, *Proteus*, and *Staphylococcus* (WO2; X16753909). In diabetic rats, extract significantly lowered levels of blood glucose, lipids, and lipid peroxidation, and increased activity of antioxidant enzymes and plasma insulin (X16865205). The extract caused inhibition of *Neisseria gonorrhoeae* (X15668617). Methanolic extract mosquitocidal for *C. quinquefasciatus* (X12635713). Petroleum ether seed extract, prepared as a cream, is stable for at least 12 months making it a suitable alternative therapy for head lice (X11414452). In the French West Indies chronic exposure to neurotoxic alkaloids could be an important aetiological factor in the link between the fruits with atypical parkinsonism and PSP (X10440304). Several compounds from bark extract cytotoxic to human tumor cell lines; bullacin B had a potency of nearly a million times that of adriamycin against the MCF-7 (human breast adenocarcinoma) cell line, squamotacin was cytotoxic for the human prostate tumor cell line (PC-3), with a potency of over 100 million times that of Adriamycin, tetrahydro-squamone and bullatacinone both showed selective cytotoxicity to MCF-7 human breast carcinoma, and several compounds showed selectivity against the human pancreatic tumor cell line (PACA-2) with potency 10–100 times that of Adriamycin (X2348205; X8991957; X9214729; X9542173; X9629470).

### MADEIRA VINE (*Anredera baselloides* (Kunth) Baill.) + BASELLACEAE

#### Synonyms:

*Boussingaultia baselloides* Kunth (basionym); fide (USN).

**Common Names:**

Arroz con Coco (Col.; IED); Lamb's Tail (Eng.; WO2); Madeira Vine (Eng.; IED; USN; WO2); Mignonette Vine (Eng.; WO2); Suelda Consuelda (Dor.; AHL). (Nscn; American entries dia-critically prepared).

**Activities:**

Hypoglycemic (1; WO3); Trypsin-Inhibitor (1; X17499881).

**Indications:**

Diabetes (1; WO3).

**Dosages:**

FNFF = !! Leaves edible, frequently used as a vegetable (X17499881). Starch-rich roots edible (IED).

- Filipinos use tubers to treat corns (WO2).

**Downsides:**

Vine suspected of killing cattle in Australia (WO2). As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**Extracts:**

Aqueous extract and boussinoside-A1 strongly hypoglycemic (WO3). Ancordin (1.25–5 µg/ml) dose-dependently stimulated NO-productions without significant cytotoxicity and kept the similar effects in NO production in 6.25 µg/ml ancordin, and also showed trypsin inhibitory activity (X17499881).

## CUBAN IVY (*Anredera vesicaria* (Lam.) C. F. Gaertn.) ++

### BASELLACEAE

**Illustrations:**

p 171 (MPG)

**Synonyms:**

*Anredera leptostachys* (Moq.) Steenis; *A. spicata* J. F. Gmel.; *Basella vesicaria* Lam. (basonym); *Boussingaltia leptostachys* Moq.; fide (MPG; USN).

**Common Names:**

Bejucó Cuaresma (Dor.; His.; AHL; MPG); Ceylon Spinach (Eng.; VOD); Glycérine (Guad.; St. Bart.; AVP); Guérit Tout (Guad.; St. Bart.; AVP); Lamb's Tail (Eng.; WO2); Liane Pti-Dian (His.; AHL); Madeira Vine (Eng.; WO2); Mignonette Vine (Eng.; WO2); No Te Embulles (His.; AHL); Sacasile (Eng.; USN); Suelda Consuelda (Dor.; Pr.; AHL; MPG); Vierge (Haiti; AVP); Vigne Vierge (Haiti; AVP; JFM); Yanm Poul (Creole; Haiti; VOD); Yedra del País (Cuba; AVP; RyM). (Nscn).

**Activities:**

Analgesic (f1; AVP; X10624882); Antiinflammatory (f1; MPG; X10624882); CNS-Depres-sant (1; X10624882); Hypoglycemic (1; WO3); Vulnerary (f; MPG).

**Indications:**

Asthma (f; JFM); Bleeding (f; JFM); Bronchosis (f; JFM); Callus (f; JFM); Cardiopathy (f; JFM); Corns (f; JFM; WO2); Diabetes (1; WO3); Fractures (f; VOD); Hyperglycemia (1; WO3); Inflammation (f1; MPG; X10624882); Myalgia (f; JFM); Pain (f1; AVP; JFM; X10624882); Palpitations (f; JFM); Pulmonosis (f; JFM); Rheumatism (f; JFM); Sprains (f; JFM); Tooth-ache (f; JFM); Wounds (f; JFM; MPG).

**Dosages:**

FNFF = ! Mucilaginous starchy tubers eaten; leaves eaten as potherb (WO2).

- Costa Ricans view the plant as antiinflammatory (MPG).
- Cubans bind a fried ground tuber poultice on fractures and sprains (JFM).
- Cubans suggest the tuber, steeped in alcohol, helps muscular pain and rheumatism (JFM).
- Cubans take the root or tuber decoction for cardiac palpitations (JFM).
- Cubans take the tea for asthma, bronchitis, and pulmonary lesions (JFM).
- Cubans use fresh leaf juice to treat toothache (JFM).
- Cubans use the tubers as antiinflammatory and hemostat, applying to calluses and corns (JFM; JTR; MPG).
- Dominicans drink the leaf decoction or potlikker for inflammation (VOD).
- Dominicans apply the tuber to fractures (MPG).
- Filipinos apply the tubers to corns (WO2).
- French West Indians use leaf decoction as a relaxing soothing bath (JFM).
- Haitians apply tubers topically to fractures (VOD).

**Downsides:**

Vine suspect in cattle poisonings in Australia (WO2).

**Extracts:**

Aqueous extract strongly hypoglycemic (WO3).

## PHEASANT TAIL (*Anthurium schlechtendalii* Kunth) +

### ARACEAE

**Illustrations:**

p 130 (AAB)

**Synonyms:**

*Anthurium tetragonum* Hook ex Schott.; *A. tikalense* Lundell; fide (USN).

**Common Names:**

Cola de Faisán (Bel.; Sp.; AAB); Pheasant Tail (Bel.; Eng.; AAB); Tye-Pè (Bel.; Maya; BNA); Xiv-Tun-Ich (Bel.; Maya; BNA); Xiv-Yak-Tun-Ich (Bel.; Maya; AAB; BNA). (Nscn).

**Activities:**

Analgesic (f; AAB); Antiedemic (f; AAB).

**Indications:**

Ache (f; AAB); Arthritis (f; AAB); Backache (f; AAB); Cramps (f; AAB); Edema (f; AAB); Myosis (f; AAB); Pain (f; AAB); Paralysis (f; AAB); Rheumatism (f; AAB); Spasms (f; AAB); Sprains (f; AAB); Swelling (f; AAB).

**Dosages:**

FNFF = X

- Belizeans boil 3 large leaves in 2 gal water 10 min and bathe while warm for joints, painful muscles, a/o sprains (AAB).
- Belizeans mash central leaf vein and apply to backache, cramps, or myalgia, then apply hot water bottle (AAB).
- Belizeans poultice mashed leaves on painful or swollen areas (AAB).
- Belizeans use steam from boiling leaves, shielded under a blanket, for paralysis, severe cramps, or spasms (AAB).



**MONKEY COMB (*Apeiba tibourbou* Aubl.) ++****MALVACEAE****Notes:**

Seed oil or ashes used in making soap (DLZ; JFM). Bark fibers used as rope and tinder; the light wood useful in making rafts (JFM).

**Common Names:**

Achota (Ma.; JFM); Apei (Wayapi; GMJ); Arbol de Fibra (Bol.; Mapiri; DLZ); Balsa (Peru; RAR); Bois Banane (Ma.; JFM); Bois Buchon (Creole; Guy.; GMJ); Bois de Meche (Ma.; JFM); Burillo (Ma.; Sp.; JFM; USN); Burio (Cr.; IED); Cabeza de Mono (Bol.; Sp.; DLZ; USN); Cabeza de Negro (Ma.; Sp.; JFM; USN); Cadilla (Col.; IED); Cadillo (Ma.; JFM); Catiguire (Ma.; JFM); Cortez (Ma.; JFM); Cortezo (Pan.; IED); Cortica (Ma.; JFM); Erizo (Col.; Sp.; IED; USN); Esponjilla (Col.; SAR); Fruta de Piojo (Pan.; IED); Guacimo (Col.; IED); Heriso (Ma.; Sp.; JFM; USN); Isherequi Camare (Ashaninka; SAR); Itaiba (Palikur; GMJ); Ivi (Bol.; Guarayo; DLZ); Jopo de Mono (Bol.; DLZ); Majagua (Cr.; IED); Malagano (Ma.; Sp.; JFM; USN); Malgano (Col.; IED); Maqui Sapa (Peru; RAR; SOU); Maquisapa Yaccha Blanco (Peru; Sp.; LOR; RAR; SOU); Molgano (Col.; SAR); Monkey Comb (Eng.; DAV); Nu Ra (Tikuna; SAR); Pachote (Ma.; JFM); Palo de Balsa (Peru; RAR); Papachote (Ma.; Sp.; JFM; USN); Pau de Balsa (Ma.; JFM); Pau de Gusano (Ma.; JFM); Pau de Jangadas (Ma.; JFM); Pau Jangada (Ma.; JFM); Peinecillo (Cr.; IED); Peine de Mico (Col.; Pan.; Peru; Sp.; RAR; USN); Pente de Macaco (Por.; GMJ); Tibourbou (Peru; SOU); Topa (Peru; RAR).

**Activities:**

Anthelmintic (f; RAR); Anticomplement (1; X8073094); Antirheumatic (f; DAW); Antispasmodic (f; DAW); Febrifuge (f; RAR); Pectoral (f; JFM); Propepic (f; JFM); Vermifuge (f; SOU).

**Indications:**

Alopecia (f; JFM); Asthma (f; SAR); Cramps (f; DAW); Fever (f; RAR); Rheumatism (f; DAW; IED); Spasms (f; DAW); Worms (f; RAR; SOU).

**Dosages:**

FNFF = ! Fruits widely eaten by frugivores; main food item of the Tambopato macaws. Bark decoction vermifuge (SOU).

- Guatemalans use seed oil to stimulate hair growth (JFM).
- Tikuna sniff fruits, after boiling and opening, for asthma (SAR).

**APHELANDRA (*Aphelandra aurantiaca* Lindl.) +****ACANTHACEAE****Synonyms:**

*Aphelandra aurantiaca* var. *roezlii* Van Houtte; *Hemisandra aurantiaca* Scheidw. (basionym); fide (USN).

**Notes:**

Mostly ornamental.

**Common Names:**

Gallo Cresta (Peru; Sp.; MDD); Santa Maria (Bel.; BNA). (Nscn).

**Indications:**

Deafness (f; SAR); Senility (f; SAR).

**Dosages:**

FNFF = ?

- Tikuna drop warm decoction into the ear to alleviate progressive deafness due to old age (SAR).

**PEANUT (*Arachis hypogaea* L.) +++****FABACEAE****Synonyms:**

*Arachidna hypogaea* (L.) Moench; *Arachis africana* Lour.; *A. americana* Ten.; *A. asiatica* Lour.; *A. hypogaea* L. forma *communis* (A. Chev.) F. J. Herm.; *A. hypogaea* L. forma *macrocarpa* (A. Chev.) Hoehne; *A. hypogaea* L. forma *microcarpa* (A. Chev.) Hoehne; *A. hypogaea* L. forma *nambyquarae* (Hoehne) F. J. Herm.; *A. hypogaea* L. forma *typica* Hoehne; *A. hypogaea* L. subsp. *fastigiata* Waldron; *A. hypogaea* L. subsp. *nambyquarae* (Hoehne) A. Chev.; *A. hypogaea* L. subsp. *oleifera* A. Chev.; *A. hypogaea* L. var. *communis* A. Chev.; *A. hypogaea* L. var. *gigantea* Patel & Narayana; *A. hypogaea* L. var. *hirsuta* Kohler; *A. hypogaea* L. var. *macrocarpa* A. Chev.; *A. hypogaea* L. var. *microcarpa* A. Chev.; *A. hypogaea* L. var. *nambyquarae* (Hoehne) Burkart; *A. hypogaea* L. var. *stenocarpa* A. Chev.; *A. hypogaea* L. var. *vulgaris* Harz; *A. nambyquarae* Hoehne; *A. rasteiro* A. Chev.; fide (POR).

**Notes:**

Kirtikar and Basu (Reprint 1975) had a full page of common names, all or most recorded here (as KAB), and many from Africa. I estimate that Burkill (1985–1995) has ten times more common names for peanut (than KAB) or any one American source I have consulted. Remember peanut is native to America, and was introduced to Africa. According to Burkill (1985–1995), ancestral peanuts were believed to occur in the eastern foothills of the Andes in northwest Argentina and adjacent Bolivia, and perhaps south Brazil (EGG). Chance findings led to domestication, “most probably in the Gran Chaco” and the valleys of the Paraguay and Parana Rivers. Distribution by man led to cultivation in Brazil as early as 980 B.C. and to coastal Peru by 800 B.C. Cave remains have been found in Mexico ca. 2,000 years old. It had reached the West Indies before Columbus. By the 16th century it was circum-Caribbean and European explorers knew it well. Slave ships were often stocked with it. As early as 1564 it was recorded in Senegambia, and by the end of the century it was well established (UPW). Peruvian anthropologist, Brack-Egg (1999) adds that it has been found in pre-Columbian tombs in coastal Peru ca. 2,500 years ago.

**Common Names:**

Aardenoot (Dutch; KAB); Aardepistas (Dutch; KAB); Aardnoot (Dutch; EFS; POR); Abarumadura (Congo; AVP); Akate (Krobo; KAB); Alcañüeses (Sp.; POR); Aleketo (Baga; KAB); Alfonsigo de Tierra (Sp.; KAB); Amande de Terre (Fr.; AVP); Amendoi (Por.; AVP); Amendoim (Por.; AVP; KAB; POR; USN); Amendoim Verdadeiro (Brazil; Por.; POR); Amendoin (Por.; EFS); Amendou Verdadero (Por.; ROE); Amendui (Por.; AVP); Anchic (Fr.; KAB); Apeneutjie (Afrikaan; POR); Apennootje (Dutch; EFS); Arachide (Fr.; Haiti; It.; AVP; EFS; POR; USN; VOD); Arachidna (Greek; It.; KAB); Arachine (Fr.; KAB); Arachida (Greek; POR); Arakhis (Rus.; POR); Arapico Fistiki (Greek; POR); Aráquida (Por.; Sp.; EFS; POR); Aráquido (Sp.; POR); Atira (Congo; AVP); Avellana Americana (Sp.; EFS; POR; USN); Azi (Awuna; Ewe; Krepi; KAB); Badam (Chepang; Danuwar; Lepcha; Magar; Nepal; Sunwar; Tamang; NPM); Banya (Yakoma; KAB); Baranha (Newari; NPM); Benda (Gabon; KAB); Bhoimag (Guj.; KAB); Bhoimug (Sin.; KAB); Bhoiachena (Guj.; KAB); Bhuichana (Guj.; KAB); Bhuichane (Bom.; Mar.; KAB); Bhuimug (Kan.; KAB);

Bhuimuga (Bom.; Mar.; KAB); Bhuimung (Sin.; KAB); Bhuisheng (Bom.; KAB); Bhusing (India; EFS); Bhumija (Sanskrit; KAB); Bhushimbika (Sanskrit; KAB); Bhustha (Sanskrit; KAB); Bilatimung (Ben.; KAB); Buchanaka (Sanskrit; EFS; KAB; NAD); Cacachuete (Pi.; KAB); Cacahuete (Fr.; EFS); Cacahuade (Ai.; Sa; EGG; RAR); Cacahuadi (Ai.; Sa; EGG); Cacahuale (Ai.; Sa; RAR); Cacahuali (Chontaquira; Sa; EGG; RAR); Cacahuete (Haiti; Pi.; Por.; Sp.; EFS; EGG; KAB; POR); Cacahuet (Cat.; KAB); Cacahuete (Sp.; EFS; USN); Cacahuète (Fr.; POR; USN); Cacao de la Tierra (Cr.; AVP); Cacao Mani (Cr.; Haiti; AVP; KAB); Cacauate (Tag.; KAB); Cacoahuari (Ai.; Culina; Sa; EGG; RAR); Cacuali (Ai.; Sa.; ROE); Calako (Banziri; KAB); Cashibo (Ai.; Sa; RAR); Chaitagne de Terre (Fr.; KAB); Chang Sheng Guo (China; POR); Chech (Ai.; Sa; Yanasha; EGG; RAR); Chinerbadam (Ben.; KAB); Chinese Almond (Eng.; KAB); Chinimung (Guj.; KAB); Chocopan (Araucano; PMC); Chokopa (Aym.; EGG; PMC; ROE); Cinabadam (Mun.; KAB); Ciniabadam (Mun.; KAB); Coum (Pahouin; KAB); Daka (Ulwa; ULW); Domchhedama (Rai; NPM); Dúse (Aguaruna; EGG); Earthnut (Eng.; EFS; POR); Echte Erdnuss (Ger.; POR); Erd-Eichel (Ger.; EFS); Erdmandel (Ger.; KAB; POR); Erdmpistazie (Ger.; KAB); Erdnuss (Ger.; AVP; EFS; POR; USN); Feve de Terre (Fr.; KAB); Fûl Sûdânî (Arab.; POR); Gida (Kano; KAB); Gigeng (Adang; KAB); Goober (Eng.; POR; USN); Goober Nut (Eng.; KAB); Gouba (Bacongo; KAB); Grondboontjie (Afrikaan; POR); Grondnoot (Dutch; EFS; KAB; POR); Groundnut (Eng.; EFS; USN; VOD); Gujiya (Sokoto; KAB); Gyada (Sokoto; KAB); Hua Sheng (China; POR); Hua Sheng Jen (China; TAN); Ibiyoga (Congo; AVP); Imchis (Que.; PMC); Inchi (Campa; EGG); Inchic (Que.; EGG); Inchik (Ai.; Sa.; ROE); Inchis (Ai.; Sa.; ROE); Inchis Choccopa (Aym.; Sa.; EGG); Inci (Ai.; Sa.; ROE); Inqui (Ai.; Antis; Sa.; EGG; ROE); Jarere (Brazil; KAB); Jinguba (Por.; POR); Jordnød (Den.; Swe.; POR); Jordnødder (Den.; POR); Jordnoedder (Den.; POR); Jorinnod (Den.; EFS); Kadale (Kan.; KAB); Kakwalu (Ai.; Piro; Sa; EGG; RAR); Kalanga (Congo; AVP); Karakoua (Mandjia; KAB); Khamse (Limbu; NPM); Kupecana (Arawak; PMC); Luo Hua Sheng (China; Pin.; DAA; POR); Maapähkel (Estonia; POR); Maapähkinä (Fin.; POR); Maibai (Burma; KAB); Makate (Ewe; KAB); Mamba (Dor.; TAN); Mancarra (Por.; POR); Mandapi (Sanskrit; KAB); Mandavi (Guj.; KAB); Mandobe (Brazil; KAB); Mandorla di Terra (It.; POR); Mandovi (Sp.; EFS); Mandubi (Por.; AVP); Mandupiliu (Brazil; Por.; KAB); Manduvi (Arg.; Chiriguana; AVP; PMC); Mani (Arab.; Pi.; Sp.; AVP; EFS; KAB; USN; VOD); Maní(î) (Sp.; POR); Mania (Guat.; AVP); Manila Grain (Eng.; KAB); Manila Kotai (Tam.; KAB); Mani Largo (Dor.; Sp.; AVP); Manobi (Por.; AVP); Mantega (Por.; AVP); Matkalai (Ben.; KAB); Maytapa (Ai.; Pacaguara; Sa.; EGG; ROE); Mendoim (Brazil; Por.; POR); Mendubi (Por.; POR); M'Foul (Baya; KAB); Mibe (Burma; KAB; NAD); Modobi (Ai.; Culina; Sa.; EGG; RAR); Mondowi (Tupi; PMC); Mondubim (Brazil; Por.; POR); Monkey Nut (Eng.; EFS); Moong Phali (Hindi; POR); Mudubim (Brazil; Por.; POR); Mugphalii (Urdu; POR); Mumphali (Tharu; NPM); Mundubi (Arab.; Tupi; AVP; PMC); Mungphali (Hindi; KAB); Mungphalii (Nepal; POR); Mussonbibakan (Kon.; KAB); Muungaphalii (Hindi; POR); Myepe (Burma; KAB); Naaquis (Chiquitano; PMC); Nankin-Mame (Japan; POR; TAN); Nelakadale (Kan.; KAB); Nelakkatala (Mal.; KAB); Nelgale (Kan.; KAB); Nellakkadalai (Mal.; POR); Ngkatiair (Ga; KAB); Nilakkadalai (Tam.; KAB); Nilasanagalu (Tel.; KAB); Nkate (Twi; KAB); Nocciolina (It.; POR); Noce di Terra (It.; KAB); Noisette de Terre (Fr.; KAB); Noix de Terre (Fr.; AVP; KAB); Orzacha Podziemna (Pol.; POR); Orzech Ziemny (Pol.; POR); Papaih (Ulwa; ULW); Peanut (Eng.; Scn.; AH2; EFS; USN); Piinatsu (Japan; POR); Piinattu (Japan; POR); Pinda (Congo; Creole; Gabon; Loango; Sur.; AVP; KAB; ULW); Pindaplant (Dutch; POR); Pindar (Eng.; NAD); Pisitasi (Hova; KAB); Pistacchio di Terra (It.; POR); Pistaccia di Terra (It.; KAB); Pistache (Haiti; AVP; VOD); Pistache d'Amérique (Fr.; KAB); Pistache des Jardines (Haiti; AHL); Pistache de Terre (Fr.; AVP; EFS; POR); Pistachier (Haiti; AVP); Pistachier de Terre (Fr.; POR); Pistacho de Tierra (Sp.; EFS); P'ndars (Eng.; AVP); Podzemnice Ole-

jná (Czech; POR); Pois de Terre (Fr.; KAB); Pwa de Terre (Creole; Haiti; VOD); Rakkasei (Japan; POR; TAN); Raktabija (Sanskrit; KAB); Ratakaju (Sin.; KAB; NAD); Snehabijaka (Sanskrit; KAB); Talcacao (Ai.; Sa.; ROE); Tama (Amahuaca; Cashibo; Conibo; Shipibo; EGG; RAR; ROE); Tata (Ulwa; ULW); Tatah (Ulwa; ULW); Teature (Gambia; KAB); Thja Lísong (Thai; POR); Tiga (Sen.; AVP); Tlacacahuatl (Aztec; PMC); Tribija (Sanskrit; KAB); Ttang Kong (Korea; POR); Vaerkadalai (Tam.; NAD); Vaerrushanagalu (Tel.; NAD); Velatimung (Dec.; NAD); Verikaddalai (Tam.; POR); Verkkadalai (Tam.; KAB); Verkkala (Mal.; KAB); Verushanagalu (Tel.; KAB; NAD); Vilatimug (Bom.; KAB); Vilayetimug (Hindi; KAB); Voanjokatra (Betsileo; KAB); Voanjombazaha (Imerina; KAB); Voanjomitohy (Hova; KAB); Yerfistigi (Tur.; EFS); Zebe (Yuracare; EGG; ROE); Zemlianoi Orech (Rus.; KAB); Zoho (Baffouro; KAB).

### Activities:

Analeptic (f; ROE); Antiaggregant (f; DAA); Antiapoptotic (1; X16041641); Anticariogenic (f; UPW); Antidiabetic (1; X12444862; X16321378); Antidote (f; UPW); Antidote (Strophanthus) (f; UPW); Antiinflammatory (f1; AHL; X16114095); Antiischemic (1; X16041641); Antioxidant (1; WO3; X11879054; X16321378); Antiparkinsonian (f; X12973933); Antiradicular (1; X16321378); Antitumor, colon (1; X16055262); Anxiolytic (1; X12895679); Aperient (f; DAA; NAD); Aphrodisiac (f; AHL; DAA; VOD); Apoptotic (1; X16055262); Astringent (f; KAB); Bechic (f; UPW); Cardioprotective (1; X12672709); Cerebroprotective (1; X16041641); Chemopreventive (1; X16055262); COX-2-Inhibitor (1; X16114095); Cyanogenetic (f; DAA); Demulcent (f; DAA; LMP); Diuretic (f; UPW); Emollient (f; DAA); Estrogenic (1; ROE; UPW); Febrifuge (f1; ULW; X15599109); Fungicide (1; WO3; X11328490); Goitrogenic (f1; ROE; UPW); Hemostat (1; DAD; UPW); Hypocholesterolemic (f; ROE); Hypotensive (f; ROE); Hypothermic (f1; ULW; X15599109); Hypotriglyceridemic (1; X12672709); iNOS-Inhibitor (1; X15832817); Lactagogue (f; DAA; KAB; NMH; SKJ); Laxative (f; ULW; UPW); Litholytic (f; UPW); Neuroprotective (1; X16041641); NO-Inhibitor (1; X15832817); Osteogenic (1; X12920814); Pancreaprotective (1; X16321378); Pectoral (f; DAA; LMP); Peptic (f; LMP); Radioprotective (f1; WO2; X15644160); Serotonergic (f1; ULW; X15599109); Tonic (f; ULW); Vasoconstrictor (1; DAD); Vasorelaxant (1; X15631089).

### Indications:

Amygdalosis (f; ROE); Anxiety (1; X12895679); Arthrosis (f; PH2); Bleeding (1; DAD; UPW); Cachexia (f; UPW); Cancer, colon (1; X16055262); Cardiopathy (1; X12672709; X16005472); Caries (f; UPW); Catarrh (f; NAD); Childbirth (f; VOD); Cholecystosis (f; DAA; DAD); Colic (f; VOD); Colitis (f; UPW); Conjunctivosis (f; UPW); Constipation (f; ULW; UPW); Cystosis (f; AHL; DAA; NAD); Dandruff (f; PHR; PH2); Dermatitis (f; PHR; PH2; ULW); Diabetes (f1; WO2; X12444862; X16321378); Dislocations (f; KAB; PH2; VOD); Dyslactea (f; KAB); Dysmenorrhea (f; VOD); Dyspnea (f; VOD); Dysuria (f; UPW; VOD); Earache (f; ROE); Eczema (f; PHR; PH2); Enteralgia (f; KAB; WO2); Enterosis (f; UPW; VOD); Fever (f1; ULW; VOD; X15599109); Fungus (1; WO3; X11328490); Gallstones (f; UPW); Gonorrhea (f; DAA; IHB); Hemophilia (f; UPW); Hemorrhoids (f; EGG); High Blood Pressure (f; ROE); High Cholesterol (f; ROE); High Triglycerides (1; X12672709); Ichthyosis (f; PHR; PH2); Impotence (f; AHL; DAA; VOD); Infection (f1; ULW; WO3; X11328490); Inflammation (f1; AHL; DAA; VOD; X16114095); Insomnia (f; ROE); Ischemia (1; X16041641); Mucorrhagia (1; DAD); Mycosis (1; WO3); Nephrosis (f; DAA); Neuralgia (f; PH2); Odontosis (f; UPW); Ophthalmia (f; UPW); Osteoporosis (1; X12920814); Otitis (f; UPW); Pain (f; VOD); Parkinson's (f; X12973933); Plantar Warts (f; JLH); Pleurisy (f; VOD); Pulmonosis (f; ROE); Rheumatism (f; DAA; IHB); Stones (f; UPW); Swelling (f; VOD); Syndrome X (1; X16005472); Varicosity (f; ROE); VD (f; DAD); Warts (f; DAA; JLH); Worms (f; ROE); Xeroderma (f; PH2).

**Dosages:**

FNFF = !!! Seeds eaten raw, boiled, roasted, salted, steamed, used in confectionary, made into peanut butter, or ground into meals of flours for breadstuffs. Source of peanut oil used in cookery, margarine, salads, and preferred for stir-fry cooking. Made into popular groundnut soup in Africa. In Asia and Africa peanuts are used as a substrate for dageh, miso, ontjom, rob ful, tempeh, and other fermented foods. Senegalese mix with couscous, making a steamed dish with *Pennisetum* or *Sorghum* seed. (UPW). A handful is nice. Once used to adulterate coffee as "Austrian coffee." Peanuts fed to pigs, targeted for "Virginia" and "Smithfield" hams, contribute a distinctive flavor (FAC). Peanut oil may naturally contain 50–57% oleic acid (UPW), and high MUFA strains (possibly GMO) may enable peanut oil to make some of the health claims now attributed to high MUFA olive and avocado oils. Leaves, young shoots, and unripe pods consumed as potherbs. Sprouts also consumed. According to Burkill (1985–1995), the leaf is eaten by various African ethnics. As an enema, 130 ml peanut oil at body temperature (PHR; PH2). For skin baths, 4 ml oil/10 liter water (PHR).

- Caribs eat raw seeds as aphrodisiac (VOD).
- Dominicans take leaf decoction for child birthing, colic, dysmenorrhea, and enterosis (VOD).
- Haitians take seed emulsion for colic, dysuria, enteritis, inflammation, and pleurisy (often attended by chest pain, dyspnea, and fever) (VOD).
- Peruvians suggest applying peanut oil to hemorrhoids (EGG).
- Peruvians suggest a bath in the foliar and floral decoction for hyperactive children (EGG).

**Downsides:**

Not covered (AHP; KOM). "No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages" (PH2). Many people are dangerously allergic to peanuts. The number of Americans allergic to peanuts has doubled in 5 years, to 2.2 million, as reported on NBC TV news (Channel 4, Washington, D.C.; Dec. 10, 2003). As of July 2007, the FDA Poisonous Plant Database listed 52 titles alluding to toxicity of this species.

**Extracts:**

Peanut oil aperitive, demulcent, emollient, insectifuge, and laxative (WOI), used in crusting and scaling of the scalp, and in massage and sunscreen oils for dry skin, eczema, and ichthyosis (PHR). Hypogin is fungicidal (X11328490). Nut and peanut butter consumption lowers risk of type 2 diabetes in women (X12444862).

**MONKEY PUZZLE (*Araucaria araucana* (Molina) K. Koch) ++****ARAUCARIACEAE****Illustrations:**

p 48 (MPG)

**Synonyms:**

*Araucaria araucana* (Mol.) C. Koch; *A. chilensis* Mirbel; *A. dombeyi* Rich.; *A. imbricata* Pavon; *Columbea quadrifaria* Salisb.; *Dombeya chilensis* Lam.; *Pinus araucana* Molina (basionym); fide (HHB; MPG; USN).

**Notes:**

The first documented record of oyster mushroom, *Pleurotus ostreatus* from Argentina, was apparently the first gilled fungus found growing on *Araucaria araucana* (X12828514).

**Common Names:**

Araucaria (Chile; Sp.; MPG); Araucária do Chile (Brazil; Por.; USN); Chile Pine (Eng.; FAC; USN); Chilean Pine (Eng.; USN); Monkey-Puzzle (Eng.; FAC; USN); Monkey-Puzzle-Tree (Eng.; USN); Pehuén (Chile; Sp.; USN); Pino Araucaria (Chile; Sp.; MPG); Pino Chileno (Peru; EGG); Piñon (Chile; Sp.; FAC); Piñonero (Chile; Sp.; MPG). (Nscn).

**Activities:**

Aphrodisiac (f; HOC; MPG); Bactericide (1; X16610214); Cytotoxic (1; X15985351); Diuretic (f; HHB); Fungicide (1; X16610214); Gastroprotective (1; X15985351; X16163822).

**Indications:**

Bacteria (1; X16610214); Bruises (f; HOC; MPG); Fungus (1; X16610214); Gastrosis (f1; X15985351; X16163822); Headache (f; HOC; MPG); Impotence (f; HOC; MPG); Infection (1; X16610214); Sores (f; HOC; MPG); Ulcers (f1; X15985351); Wounds (f; HOC; MPG).

**Dosages:**

FNFF = ! Seeds eaten like pine nuts, fresh, boiled, roasted, or converted into an alcoholic beverage (FAC; MPG).

- Chilean Mapuche have used since pre-Colombian times to treat gastric ulcers (X15985351).
- Chileans claim the edible seeds are aphrodisiac (MPG).
- Chileans use the resin, much as we use turpentine, for bruises, headache, sores, and wounds (MPG).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**Extracts:**

15-acetyl-labd-8(17)-en-19-ol and 15,19-diacetyl-labd-8(17)-en, six diterpenes, were found in the resin. 15-hydroxyimbricatolal and 15-acetoxyimbricatolal, 15-acetyl-labd-8(17)-en-19-oic acid methyl ester, and 15-acetoxy-19-labdanoic acid were as active for gastroprotection as the drug lansoprazole at 20 mg/kg (X16163822).

## MEXICAN PRICKLY POPPY (*Argemone mexicana* L.) +

### PAPAVERACEAE

**Illustrations:**

p 39 (TRA)

**Synonyms:**

*Argemone ochroleuca* Sweet.

**Common Names:**

Abrojo (Bol.; DLZ); Adormidera Espinosa (Sp.; JFM; KAB; USN); Akusiribie (Ashanti; KAB); Aransemyan (Twi; KAB); Arasina Ummatta (Kan.; MPI; NAD); Argémone du Mexique (Fr.; Haiti; AVP; USN); Awarqolla (Aym.; DLZ); Azamigeshi (Japan; KAP); Badanjane Dashtu (Iran; KAP); Bakulajanum (Mun.; KAB; WO2); Balurakkisa (Kan.; KAB); Baramdandi (Urdu; KAB; WO2); Barbanda (Tharu; NPM); Baro-Shiálkánta (Ben.; DEP; KAB); Bathurst Burweed (Eng.; KAB); Bharamdandi (Dec.; KAB); Bharbandhand (Hindi; DEP; KAB; WOI); Bharbhurwa (Nwp.; DEP; KAB); Bhat Kateya (Pun.; DEP; KAB; WO2); Bhatmil (Pun.; DEP); Bherband (Pun.; DEP); Birama A'andu (Tam.; DEP); Blessed Thistle (Eng.; AVP); Brahmadandi (Dec.; Sanskrit; Tel.; DEP; KAB; WOI);

Brahmadandi Chettu (Tel.; DEP); Brahmadanti (Mal.; DEP); Brahmndandidandu (Tel.; MPI); Bramadandu (Tam.; KAB); Cachumba (Ilo.; KAB); Ca Gai (Vn.; KAB); Cambodge Thistle (Eng.; AVP); Cardo (Mex.; AVP); Cardo Mariano (Por.; AVP); Cardo Santo (Bol.; Brazil; Dor.; Mex.; Por.; Pr.; Sp.; AVP; DLZ; JTR; KAB; TRA; USN); Cardo Santo de Cuba (Cuba; JTR); Carhuincho (Bol.; DLZ); Carlosanto (Bol.; DLZ); Ccarhuinchu (Peru; EGG); Ccarhuinchuca (Peru; EGG); Ccjarhuinchu (Peru; EGG); Ccjarhuinchuca (Peru; EGG); Chadwon Beni (Creole; Haiti; VOD); Chardon (Guad.; Réunion; AVP; KAB); Chardon Beni (Creole; Haiti; AVP; VOD); Chardon Bénit (Guad.; Mart.; AVP; JTR); Chardon Bénit des Antilles (Guad.; AVP); Chardon Epineux (Fr.; AVP); Chardon Marbre (Guad.; AVP); Chicalote (Mex.; Ocn.; Sp.; AH2; AVP; USN); Chimichimi (Sp.; JFM); Crested Thistle (Eng.; AVP); Dárudi (Guj.; DEP; MPI; WO2); Dárúri (Mar.; DEP; KAB); Dathera Gida (Kan.; DEP); Datturí (Kan.; DEP); Datturi Gidda (Kan.; Mal.; DEP; WOI); Diluarario (Tag.; KAB); Donkey Thistle (Eng.; JFM); Farangi Dhutúrá (Hindi; DEP); Farangi Dhutúre (Dec.; DEP); Figo del Infierno (Sp.; AVP; DEP); Figo do Infierno (Por.; KAB); Figuier Infernal (Fr.; AVP); Firangi Dhotrá (Mar.; DEP); Firingidutro (Kon.; KAB); Fleurs Chadron Jaune (Haiti; AVP); Gailshe (Udhampur; MKK); Geelblom-Bloudissel (Afrikaan; USN); Gokhula Janum (San.; DEP; WO2); Hakorinkada (Fula; Hausa; KAB); Jamaica Yellow Thistle (Eng.; AVP); Jarhuancho (Peru; EGG); Kada Ka Taba Yaro (Yoruba; KAB); Kande (Nepal; NPM); Kandiári (Pun.; DEP; MPI); Kanta Dhotra (Mar.; MPI); Kantá Kusham (Oriya; DEP; KAB; NAD); Kante Dhotráa (Mar.; DEP; NAD); Kantela (Nwp.; DEP); Karwah (Nwp.; DEP); Katara (Danuwar; NPM); Khyáa (Burma; DEP); Khyoa (Burma; KAP); Kotci (Pun.; DEP); Kudiyoeetti (Tam.; NAD; WOI); Kudy Tupoodu (Tam.; KAP); Kui A'kum Ckedi (Tam.; DEP); Kurukkansedi (Tam.; MPI); Kurukkum (Tam.; WO2); Kwarko (Kano; KAB); Lao Chou Li (China; KAB); Láo Thu Loc (Ic.; KAB); Mexican Poppy (Eng.; AH2; AVP; USN; VOD); Mexican Prickly Poppy (Eng.; Scn.; AH2; USN); Mexican Thistle (Eng.; AVP; JTR); Ngolokogodie (Sudan; AVP); Nthswantsane (Suto; KAB); Palanti Kanta (Mooshar; NPM); Papoula de Espinho (Brazil; Por.; USN); Papoula do México (Brazil; Por.; USN); Papoulo de Espinho (Por.; AVP); Pavot Épineux (Haiti; Mart.; AVP; JTR); Piládhaturá (Dec.; Hindi; DEP; KAP); Piládhuturá (Hindi; DEP); Pinvalá Dhotrá (Mar.; DEP); Pivlá Dhotrá (Mar.; WOI); Ponnunmattum (Mal.; MPI; WOI); Prickly Poppy (Eng.; CR2; USN; VOD); Prickly Thistle (Eng.; AVP); Qarwa Jinchu (Aym.; DLZ); Rangainjanum (Hasada; KAB); Rankirgokatu (Sin.; KAP); Satiyanasi (Yunani; KAP); Satya Nasa (Pun.; DEP); Satyanashi (Hindi; Nepal; Sanskrit; KAP; NPM; WO2); Shajzatyssoom (Arab.; KAP); Shial Kántá (Ben.; Hindi; DEP; KAP; MPI; WO2); Shielkanta (Ben.; MPI); Siálkántá (Pun.; DEP); Siálkántó (Ben.; DEP); Siyal-Kanta (Ben.; WOI); Spirit Weed (Eng.; JFM); Srigála Kántá (Sanskrit; DEP); Stachelmohn (Ger.; AVP; KAB; KAP; USN); Sungure Kanda (Majhi; Nepal; NPM); Suvarnakshiri (Ayu.; Sanskrit; AH2); Swarnakshiri (Sanskrit; MPI; NAD); Tache de L'oeil (Fr.; AVP; JFM); Taruj Ninri (Que.; DLZ); Thakal (Nepal; KAP; NPM; SUW); Thistle (Eng.; JFM); Thistle Root (Eng.; JFM); Ujar Kántá (Hindi; DEP); Yellow Thistle (Eng.; JFM; KAP; USN); Zerbe Dragon (Guad.; AVP).

### Activities:

Alterative (f; NPM); Analgesic (f1; DAW; DEP; WBB); Anthelmintic (f; KAB); Anticarcinomic (1; X12939038); Antidote (f; KAB); Antifertility (f; EB31:299); AntiHIV (1; FNF; HAD; X12624820); Antiinflammatory (1; TRA); AntiMDR (1; FNF); Antiproliferant (1; X14719119); Antiseptic (1; WO2); Antispermatogetic (1; WO3); Antitussive (f; VOD); Antiviral (f1; DAW; KAP; WO2); Aphrodisiac (f; KAB); Bactericide (1; WO2); Carcinogenic (1; WO2); Cardiodepressant (1; MPI; WO2); Carminative (f; CRC); Cathartic (f; JFM); Chemosterilant (1; X12699943); Collyrium (f; KAB); Contraceptive (f; CRC); Cytotoxic (1; X12939038); Demulcent (f; CRC; DEP; IED; KAP; NPM); Depurative (f;

CRC; EGG; JFM); Diaphoretic (f; JFM; WBB); Diuretic (f; CRC; DEP; JFM; WBB); Edemagenic (1; JFM); Embryotoxic (1; TRA); Emetic (f; CRC; IED; JFM; VOD; WBB); Emmenagogue (f; CRC; JFM); Expectorant (f; CRC; DEP; IED; WBB); Febrifuge (f; DLZ; EGG); Fungicide (1; TRA; WBB); Glaucomagenic (f; JFM); Hallucinogenic (f; CRC); Hemostat (f; CRC; DAW); Hepatotoxic (1; TRA; X3967743); Hypertensive (1; TRA); Hypnotic (f; JTR); Hypoglycemic (1; TRA); Hypotensive (1; MPI; TRA); Insecticide (1; TRA; WBB); Larvicide (1; X12699943); Laxative (f; DLZ; IED; NPM; WBB); Litholytic (f; EGG; KAP); Molluscicide (1; X12080983); Mosquitocide (1; X12699943); Myostimulant (1; MPI); Narcotic (f1; CRC; DEP; EGG; KAP; WBB; WO2); Nematoxicide (1; WO3); Orexigenic (f; CRC); Oxytocic (1; MPI); Pectoral (f; DLZ; EGG; JFM); Poison (f; CRC); Purgative (f; CRC; EGG; VOD; WBB); Respiradepressant (1; WBB); Respirastimulant (1; WBB); Reverse Transcriptase-Inhibitor (1; FNF; HAD); Sedative (f; CRC; JFM; WBB); Spasmogenic (1; TRA); Stimulant (f; CRC); Sudorific (f; CRC; DLZ; EGG; VOD); Tachycardic (1; WBB); Termitifuge (f; WBB); Tonic (f; DLZ; EGG; JFM); Trypanocide (1; WO2); Uterotonic (1; TRA; WBB); Vasodilator (1; TRA); Vulnerary (f; CRC; JFM).

### Indications:

Acne (f; WO3); Addiction (1; X9270378); Asthma (f; CRC; EGG; JFM); Bacteria (1; WO2); Bilioussness (f; KAB); Bleeding (f; CRC; DAW); Bleennorrhagia (f; JTR; KAB; WBB); Blisters (f; NAD); Boils (f; WO3); Burns (f; NPM); Calculus (f; EGG; KAP); Cancer (f1; IED; JFM; JLH; X12939038; X14719119); Cancer, breast (f1; IED; JFM; JLH; X14719119); Cancer, pharynx (f1; JLH; X12939038); Cancer, stomach (f1; JLH; X12939038); Cardiopathy (f; JFM); Caries (f; KAB); Catarrh (f; CRC; KAP); Chancre (f; CRC; JLH); Childbirth (f; CRC); Cholecystosis (f; CRC); Cholera (f; WBB); Colds (f; CRC; JFM); Colic (f; CRC; DEP; JFM; WBB); Conjunctivosis (f; CRC; EB31:351; JFM; VOD); Constipation (f; DLZ; IED; KAP; NPM; WBB); Convulsions (f; JTR); Corneal Opacity (f; DEP; JFM; KAB); Coughs (f; EGG; JFM; JTR; KAB; VOD); Cystosis (f; DAW); Dentition (f; JFM); Dermatitis (f; CRC; DEP; EGG; IED; VOD; WBB; WO2); Diabetes (1; TRA); Diarrhea (f; WBB); Dropsy (f; CRC; DEP; KAP; NPM); Dysentery (f; DEP; WBB); Dysuria (f; CRC; JFM); Eczema (f; WBB); Enterosis (f; DEP); Epilepsy (f; JFM); Eruptions (f; CRC); Fever (f; CRC; DLZ; EGG; JFM; VOD); Flu (f; VOD); Fungus (1; TRA; WBB); Gas (f; CRC); Gastralgia (f; TRA); Gastrosis (f; SUW; TRA); Gleet (f; KAP); Gonorrhoea (f; DEP; NAD; WBB); Guinea Worms (f1; KAB; WO2); Headache (f; CRC; DEP); Heart (f; CRC); Hepatosis (f; CRC; EGG; JFM; VOD); Herpes (f; CRC; DEP; JTR; KAP); High Blood Pressure (f1; JFM; MPI; TRA); HIV (1; FNF; HAD; X12624820); Hyperglycemia (1; TRA); Impotence (f; KAB); Infection (f1; DAW; DEP; TRA; WBB; WO2); Inflammation (f1; CRC; KAP; TRA); Insomnia (f; CRC; JFM; WBB); Intoxication (f; CRC); Itch (f; CRC; DEP; IED; NPM; WBB); Jaundice (f; DEP; JFM; KAP; NPM); *Leishmania* (1; WO2); Leprosy (f; KAB); Leukoderma (f; KAB); Low Blood Pressure (1; TRA); Malaria (1; JFM); MDR (1; FNF); Morphine (1; X9270378); Mucososis (f; KAB); Nephrosis (f; EGG); Nervousness (f; JFM); Ophthalmia (f; CRC; DEP; EGG; JFM; NPM; WBB); Pain (f1; DAW; DEP; EB28:427; WBB); Parasites (f; JFM); Pertussis (f; CRC; DLZ; JFM); Pneumonia (f; JFM); Puerperium (f; DAW); Pulmonosis (f; KAB); Rheumatism (f; CRC; VOD); Ringworm (f; JFM); *Salmonella* (1; TRA); Scabies (f; CRC; DEP; IED; KAP); Snake Bites (f; JTR; WBB); Sores (1; DEP; EGG; JFM; WO2); Splenomegaly (1; WO2); Splenosis (f; JFM); *Staphylococcus* (1; TRA); Stomachache (f; TRA); Stones (f; EGG; KAP); Strangury (f; DEP; KAB); Swelling (f; KAP); Syphilis (f; NAD; WO2); Tapeworm (f; DEP; KAP); Teething (f; JFM); Toothache (f; CRC; EGG; KAB); Trachoma (1; WO2); Tuberculosis (1; FNF; WBB); Viruses (f1; DAW; KAP; WO2); Warts (f; EGG; JFM; JLH; VOD); Water Retention (f; JFM); Withdrawal (1; X9270378); Worms (f; KAB); Wounds (f1; CRC; JFM; WBB).



**Dosages:**

FNFF = X! Stems and seed oil reportedly used for human food (WBB). 30 minims oil (DEP); 1–2 ml seed oil (KAP); 1–3 g seed powder (KAP); thimbleful of seeds as emetic (DEP); 1–3 g root powder (KAP).

- Asian Indians pound seeds with black pepper and mustard oil for boils and pimples (WO3).
- Asian Indians suggest topical seed oil for dermatoses, headache, and herpetic infections (DEP).
- Assamese Tribals apply 1–2 drops latex on the tongues of children who lisp.
- Bahamians decoct whole plant in ½ liter water reducing to 1½ cups, taking ½ cup each a.m. for hepatitis (JFM).
- Bolivians and Haitians apply sap to eye for conjunctivitis, to skin for warts and other skin ailments (DLZ; VOD).
- Bolivians use petals as pectoral for asthma and whooping cough (DLZ).
- Cubans use the latex on granulations on the lips, for herpes and warts (JTR).
- Curaçaoans take young leaf tea for asthma, cough, fever, and the heart (JFM).
- Gold Coastals grind root with onion to draw out guinea worms (KAB).
- Haitians apply crushed leaves topically to rheumatism (VOD).
- Haitians use leaf decoction for anorexia, cough, fever, flu, and hepatosis (VOD).
- Haitians use powdered seed as emetic, purgative, and sudorific (VOD).
- Jamaicans use a thimbleful of bruised seed in water as emetic (DEP), the plant decoction for cold and fever (JFM).
- Mandingo natives of Gambia use leaf infusion for cough (KAB).
- Venezuelans take decoction as anticancer, antiepileptic, depurative, diaphoretic, emetic, emmenagogue, and vulnerary (JFM; JTR).
- Virgin Islanders use the root decoction for cold and pneumonia (JFM).
- Yucatanese decoct 10 g leaves in 180 cc sweet water, taking 2 tsp every 2 hr for hepatosis, jaundice, and splenosis, considering the seeds pectoral and soporific (JFM).

**Downsides:**

Ingestion of the seed oil can cause anemia, diarrhea, dysentery, high tension glaucoma, and vomiting due to the carcinogenic alkaloid sanguinarine. Toxicity is due to interaction of sanguinarine and 11-oxo-triacontanoic acid. Milk of cows fed prickly poppy can cause glaucoma. (WO2). LD50 of argemone oil = 9 ml/kg ipr mus; sanguinarine = 18 mg/kg (WBB). As of July 2007, the FDA Poisonous Plant Database listed 115 titles alluding to toxicity of this species.

**Extracts:**

Seeds contain berberine which may be helpful in MDR-resistant tuberculosis (JAD); berberine is also antipyretic and hypotensive in addition to many other activities. Berberine reportedly liberates the malaria organism into the peripheral circulation from internal organs, making it more susceptible to quinine. Extracts of the plant, without quinine, are ineffective in malaria. Teas made from berberine-containing barberries have been useful in decubitus, stomatitis, tonsillitis, and varicose veins. I have more than 50 medicinal uses for berberine in my database, including some that might suggest its potential utility for AIDs, the real scourge of South Africa. At the AIDs South Africa conference (which I did not attend), allopaths stressed the importance of synthetic reverse transcriptase inhibitors (RTI), protease inhibitors, and integrase inhibitors. Berberine is one such RTI (JAD). And *Argemone* is by no means a major source of berberine, being only some 1/200th to 1/100th as rich as the much richer goldthread and barberry (JAD). I think reports of codeine and morphine (e.g., in EGG) are erroneous. Seed contains sanguinarine, a potential hepatotoxic alkaloid (X3967743). Seed extract larvicidal for *Aedes aegypti* (X12699943). Benzo[c]phenanthridine (+/-)-6-acetyldihydrochelerythrine exhibited significant anti-HIV activity (EC50 = 1.77 µg/ml; TI = 14.6) (X12624820).

**MIL HOMBRES (*Aristolochia triangularis* Cham.) X****ARISTOLOCHIACEAE****A****Synonyms:**

*Aristolochia antihysterica* M.; *A. sellowiana* Duch.; *Howardia sellowiana* Duch.; *H. triangularis* Kl.; fide (MPG).

**Notes:**

With dozens of species, *Aristolochia* is pretty much on the FDA no-no list, as a presumed container of the carcinogen aristolochic acid.

**Common Names:**

Angelicó (Brazil; MPG); Aristoloquia-Mil-Homens (Brazil; MPG); Caçau (Brazil; MPB); Capa Homens (Brazil; MPG); Cipó de Culebra (Brazil; MPG); Cipó Jarrinha (Brazil; MPB); Cipó Mil Homens (Brazil; MPB; MPG); Jarra (Brazil; MPG); Jarrinha Concha (Brazil; MPB); Jarrinha Triangular (Brazil; MPB); Mil Hombres (Brazil; Par.; MPG); Mil Hombres del Rio Grande (Brazil; MPG); Mil Homens do Rio Grande do Sol (Brazil; MPB); Palo Jarrita (Brazil; MPG); Palo Monte (Brazil; MPG); Papo del Peru (Brazil; MPG). (Nscn).

**Activities:**

Abortifacient (f; MPG); Anthelmintic (f; MPG); Antihysterical (f; MPG); Antiinflammatory (f; MPG); Antimitotic (1; MPG); Antiophidic (f; MPG); Antirheumatic (f; MPG); Antiseptic (f; MPG); Antispasmodic (f; MPG); Bactericide (1; MPG); Carcinogenic (1; MPG); Contraceptive (f1; X862810); Cytotoxic (1; X10904157); Depurative (f; MPG); Diuretic (f; MPB; MPG); Emmenagogue (f; MPB); Febrifuge (f; MPG); Oregenic (f; MPG); Sedative (f; MPG); Stimulant (f; MPB); Stomachic (f; MPG); Sudorific (f; MPG); Tonic (f; MPB).

**Indications:**

Amenorrhea (f; MPB); Arthrosis (f; MPG); Bacteria (1; MPG); Cystosis (f; MPB); Dermatitis (f1; MPB); Dropsy (f; MPB); Enterosis (f; MPB); Fever (f; MPG); Gastrosis (f; MPG); Gout (f; MPG); Hysteria (f; MPB; MPG); Infection (f1; MPG); Inflammation (f1; MPG); Insomnia (f; MPG); Malaria (f; MPB); Orchitis (f; MPB); Rheumatism (f; MPG); Snake Bites (f; MPG); Spasms (f; MPG); *Staphylococcus* (1; MPG); VD (f; MPG); Worms (f; MPB; MPG); Wounds (f1; MPG).

**Dosages:**

FNFF = X.

- Argentinians use decoction as abortifacient, antirheumatic, antiseptic, and emmenagogue (MPG).
- Brazilians use orally as anthelmintic, antidotal, antihysterical, antispasmodic, emmenagogue, febrifuge, and sedative (MPG), for cystosis, dropsy, enterosis, malaria, and worms (MPB).
- Brazilians use topically as antiinflammatory, antirheumatic, and antiseptic, for snake bite, sores, and in baths for orchitis (MPB; MPG).
- Paraguayans use mashed root decoction as aperitive, depurative, diuretic, febrifuge, stimulant, stomachic, sudorific, and tonic, for gastrosis, gout, rheumatism, snake bite, and venereal disease (MPG).
- Paraguayans use stem decoction or tea as abortifacient (MPG).

**DUCK FLOWER (*Aristolochia trilobata* L.) X****ARISTOLOCHIACEAE****Illustrations:**

p 54 (AAB); p 40 (MPB)

**Synonyms:**

*Aristolochia appendiculata*; *A. caudata*; *A. macrotia*; *A. macrourea*; *A. scandens*; *A. surinamensis*; *A. tapetotricha*; *A. trifida*; *A. triloba*; *Howardia macrourea*; *H. surinamensis*; *H. triloba*; fide (EGG).

**Notes:**

With dozens of species, *Aristolochia* is pretty much on the FDA no-no list, as a presumed container of the carcinogen aristolochic acid.

**Common Names:**

Amarga de Santiago (Ma.; JFM); Angelicó (Brazil; MPG); Bejuco de Alcanfor (Cuba; AVP); Bejuco de Estrella (Peru; Sp.; JFM; RAR); Bejuco de Santa Maria (Ma.; Sp.; JFM); Bejuco de Santiago (Ma.; Sp.; JFM); Buche de Pavos (Ma.; Sp.; JFM); Cachimbos (Ma.; Pr.; Sp.; AVP; JFM); Calunga (Brazil; MPB); Canastilla (Peru; RAR); Capa Homem (Brazil; JFM; MPG); Colombo (Ma.; Sp.; JFM); Contraherva Bastardo (Ma.; JFM); Contrayerba (Bel.; Ma.; BNA; JFM); Contrebo (Bel.; Ma.; BNA; JFM); Country Erbo (Bel.; Ma.; BNA; JFM); Duck Flower (Bel.; Eng.; AAB); Feuille Trèfle (Creole; GMJ); Flor de Pato (Bel.; AAB); Gallito (Dor.; AHL); Jarrinha (Brazil; MPB); Jaruiça (Ma.; JFM); Liane Trèfle (Creole; GMJ); Media Luna (Ma.; JFM); Mil Homens (Brazil; MPB); Papa de Peru (Ma.; JFM); Papo do Peru (Brazil; MPG; RAR); Pavitos (Ma.; Pr.; AVP; JFM); Pipe Végétale (Guad.; AVP); Trèfle (Guad.; AVP); Trèfle Caraïbe (Creole; GMJ); Umbu Caá (Brazil; MPB); Urubu Caá (Brazil; MPB); Yerba Amarga (Ma.; JFM). (Nscn).

**Activities:**

Abortifacient (f; EGG; MPB; RAR); Alexiteric (f; GMJ); Antihysterical (f; MPB); Antiinflammatory (1; X12065153); Antiseptic (f1; MPB; X12787962); Antispasmodic (f; JFM); Astringent (1; EGG); Bactericide (1; X12787962); Bitter (f; MPB); Carcinogenic (1; MPG); Depurative (f; JFM); Diuretic (f; MPB); Emmenagogue (f; EGG); Excitant (f; MPB); Febrifuge (f; EGG; MPB); Parasiticide (f1; X11891089); Purgative (f; EGG); Stimulant (f; JFM; MPB); Stomachic (f; MPB); Sudorific (f; MPB); Tonic (f; MPB); Vermifuge (f1; X11891089); Vulnerary (f1; X12787962).

**Indications:**

Acariasis (f; EGG; RAR); Amebiasis (f; AAB); Amenorrhea (f; AAB); Anorexia (f; AAB); Bacteria (1; X12787962); Bites (f; GMJ); Cardiopathy (f; AAB); Childbirth (f; JFM); Colds (f; AAB); Colic (f; JFM); Colitis (f; AAB); Constipation (f; AAB; EGG); Dandruff (f; MPB); Dermatitis (f1; X12065153); Diabetes (f; JFM); Diarrhea (f; MPB); Dysentery (f; JFM); Dysmenorrhea (f; JFM); Dyspepsia (f; AAB); Fever (f; EGG; MPB; RAR); Flu (f; AAB); Gas (f; AAB); Gastrosis (f; AAB; MPB); Hangover (f; AAB); Hepatosis (f; GMJ); High Blood Pressure (f; AAB; JFM); Hysteria (f; MPB); Infection (f1; MPB; X12787962); Inflammation (f1; MPB; X12065153); Malaria (f; GMJ); Nausea (f; JFM); Orchosis (f; EGG; MPB; RAR); Parasites (f1; X11891089); Snake Bites (f; GMJ; JFM); Sores (f; MPB); Spasms (f; JFM); *Staphylococcus* (1; X12787962); Stomachache (f; AAB); UTIs (f; AAB); Worms (f1; X11891089); Wounds (f1; X12787962).

**Dosages:**

FNFF = X. Belizeans use rum tincture or handful of chopped vine steeped 10 min in 3 cups boiled water, taking 1 strained cup before meals as needed (AAB).

- Belizeans take the rum tincture for ameba, amenorrhea, anorexia, cardiopathy, dysmenorrhea, colds, colitis, constipation, dyspepsia, flu, gas, gastritis, hangover, high blood pressure, stomachache, and UTIs (AAB).
- Belizeans use powdered root decoction for fever (JFM).
- Brazilians use orally as abortifacient, antihysterical, emmenagogue, febrifuge, and stimulant, using for dandruff and orchosis (JFM; MPB).
- Guyanans view the plant as alexiteric; the leaf tea for hepatosis and malaria (GMJ).
- Hondurans take the decoction for colic (JFM).
- Peruvians suggest the plant as abortifacient, astringent, emmenagogue, febrifuge, and purgative, using for acariasis and orchosis (EGG).
- Trinidadans take leaf decoction for childbirth, dysmenorrhea, high blood pressure, and snake bite (JFM).

**Extracts:**

Hexane extracts of leaves and bark were active against *Staphylococcus aureus* (MIC = 0.31 and 0.625 mg/ml, respectively) (X12787962).

**CHILEAN WINEBERRY (*Aristotelia chilensis* (Molina) Stuntz.) +  
ELAEOCARPACEAE**

**Illustrations:**

fig 70 (MPG)

**Synonyms:**

*Aristotelia glabra* Miers; *A. glandulosa* Ruiz & Pavon; *A. macquii* L'Her; *Cornus chilensis* Molina (basonym); fide (USN).

**Common Names:**

Ach (Chile; X12475268); Chilean Wineberry (Eng.; FAC); Clon (Chile; Sp.; MPG; USN); Koelon (Chile; MPG); Macqui (Chile; Sp.; USN); Maquei (Chile; Sp.; USN); Maqui (Chile; MPG); Maquie (Chile; MPG); Queldrón (Chile; Sp.; MPG; USN). (Nscn).

**Activities:**

Antiatherogenic (f; X12475268); Antioxidant (1; X12475268); Antiseptic (1; MPG); Bactericide (1; MPG); Myorelaxant (1; MPG); Vulnerary (1; MPG).

**Indications:**

Aphtha (f; MPG); Atherosclerosis (f; X12475268); Bacteria (1; MPG); Diarrhea (f; MPG); Dysentery (f; MPG); Infection (1; MPG); Pharyngosis (f; HOC); Sarcina (1; MPG); Sores (f; MPG); *Staphylococcus* (1; MPG); Stomatosis (f; MPG); Tumors (f; HOC; JLH); Wounds (f; MPG).

**Dosages:**

FNFF = ! Berries eaten raw and made into native wine called "tecu" (FAC).

- Chileans apply bruised leaves as cataplasm for tumors, to the back and kidney to lower fever (HOC; JLH).
- Chileans make gargles or mouthwashes for sores in the mouth (MPG).
- Chileans use the fruit tea for diarrhea and dysentery, and to wash wounds (MPG).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

Berries and juice have higher phenol content, scoring better antioxidant capacity, in comparison to various commercial berries. Rich in anthocyanins, which accounts for most of its antioxidant properties, suggesting possible antiatherogenic properties (X12475268).

**CRICKET VINE (*Arrabidaea chica* (Humb. & Bonpl.) Verl.) +****BIGNONIACEAE****Synonyms:**

*Bignonia chica* Bonpl.(basionym); fide (USN)

**Notes:**

The red dye, once used in cosmetics outside the Amazon, was exported in the 19th century under the name “chica red” (MPB).

**Common Names:**

Barqui (Peru; RAR); Cajiru (Brazil; MPB); Calajourou (Creole; Guy.; GMJ); Carajuru (Brazil; MPB); Chica (Brazil; MPB); Cipo Cruz (Brazil; MPB); Coapiranga (Brazil; MPB); Crajiru (Brazil; GMJ); Cricket Vine (Eng.; Scn.; AH2; USN); Guagiru (Brazil; MPB); Guarajuru Piranga (Brazil; MPB); Kalawilu (Galibi; GMJ); Karajura (Palikur; GMJ); Koo-Ri (Siona; SAR); Koo-Ri Huasca (Inga; SAR); Kra Wiru (Galibi; GMJ); Kuu Di O (Huitoto; SAR); Ma Kuri (Siona; SAR); Nea Kuri (Siona; SAR); Oajuru (Brazil; MPB); Pariri (Por.; GMJ); Pariri Piranga (Brazil; MPB); Puca Panga (Peru; Sp.; LOR; MDD); Rabadea (Bel.; BNA); Taii (Achual; Jibaro; SAR).

**Activities:**

Antiherpetic (f; RAR); Antiinflammatory (f; DAV); Antispasmodic (f; MPB); Antiviral (f; RAR); Astringent (f; RAR); Depurative (f; DAV); Fungicide (f; MPB); Hemostat (f; MPB); NF-kappaB-Inhibitor (1; X11324913).

**Indications:**

Anemia (f; MPB); Bleeding (f; MPB); Colitis (f; MPB); Conjunctivitis (f; SAR); Cramps (f; MPB); Dermatitis (f; MPB); Enterosis (f; MPB); Fungus (f; MPB); Herpes (f; RAR); Infection (f; MPB); Inflammation (f; DAV); Mycosis (f; MPB); Ringworm (f; MPB); Spasms (f; MPB); Viruses (f; RAR).

**Dosages:**

FNFF = ?

- Tikuna use leaf infusion as collyrium for acute conjunctivitis (SAR).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

Carajurin, from the leaves, inhibited NF-kappaB, but not NF-AT at 500  $\mu$ M (X11324913).

**MEXICAN WHITE SAGE (*Artemisia ludoviciana* Nutt.) +****ASTERACEAE****Illustrations:**

p 134 (MAX)

**Synonyms:**

*Artemisia ludoviciana* ssp. *mexicana* (Willd. ex Spreng.) D. D. Keck; *A. mexicana* Willd. ex Spreng; *A. vulgaris* Nutt. ssp. *mexicana*; fide (USN).

**Notes:**

Moerman's account gives more than a hundred medicinal uses and several other uses for this wide ranging species (DEM).

**Common Names:**

Ajenjo del Pais (Mex.; JFM; MAX; MPG); Altamisa (Mex.; MPG); Artemisia (Ma.; JFM); Azumate de Puebla (Mex.; MPG); Black Sage (Eng.; JFM); Cudweed (Eng.; USN); Estafiate (Mex.; Ocn.; AH2; FAC; MPG); Hierba Maestra (Mex.; MPG); Incienso (Ma.; JFM); Istafiate (Mex.; JFM; MAX); Iztauhyatl (Mex.; MAX; MPG); Louisiana Sage (Eng.; USN); Louisiana Sagewort (Eng.; DEM; USN); Louisiana Wormwood (Eng.; FAC; USN); Mexican White Sage (Eng.; Scn.; AH2); Prairie Sage (Eng.; USN); Rocky Mountain Sage (Ma.; JFM); Silver Wormwood (Eng.; USN); Western Mugwort (Eng.; USN); Western Sage (Eng.; USN); White Prairie Sage (Eng.; FAC); White Sage (Eng.; USN).

**Activities:**

Abortifacient (f; MPG); Amebicide (1; X15975735); Analgesic (f; JFM); Anthelmintic (f; MAX; MPG); Antidote (Rhus) (f; EB31:351); Antiinflammatory (1; X9013864); Antimalarial (1; X9419840); Antiseptic (f1; DEM; X13680821); Antitussive (f; MPG); Bactericide (1; X13680821); Carcinogenic (1; MPG); Cathartic (f; DEM); Decongestant (f; JFM); Deodorant (f; DEM); Dermatitigenic (1; X3970585); Emmenagogue (f; JFM); Expectorant (f; MPG); Febrifuge (f; MPG); Fungicide (1; X7898123); Immunostimulant (f; DEM); NF-kappaB-Inhibitor (1; X9013864); Orexigenic (f; MAX; MPG); Paralytic (f; MPG); Parasiticide (f1; MPG; X15975735); Plasmodicide (1; X9419840); Stomachic (f; MAX; MPG).

**Indications:**

Amebiasis (1; X15975735); Anorexia (f; MPG); Arthrosis (f; DEM; MAX); Asthma (f; JFM); Backache (f; DEM); Bacteria (1; X13680821); Blisters (f; DEM); Boils (f; DEM); Bruises (f; DAW); Cholera (f; MPG); Colds (f; DAW; DEM); Colic (f; JFM; MPG); Congestion (f; JFM); Conjunctivitis (f; DEM); Coughs (f; DEM; JFM; MPG); Deafness (f; MPG); Dermatitis (f; DAW; DEM); Diarrhea (f1; DEM; X15975735); Dropsy (f; MPG); Dysmenorrhea (f; MPG); Dyspepsia (f; DEM; MPG); Dysuria (f; MPG); Eczema (f; DEM); Enterosis (f; MPG); Epistaxis (f; DEM); Fever (f; DEM; MPG); Flu (f; DEM); Fracture (f; DEM); Fungus (1; X7898123); Gastrosis (f; EB31:351; MPG); Giardia (1; X15975735); Glossosis (f; MPG); Headache (f; DEM); Infection (f1; DEM; X13680821; X7898123); Inflammation (f1; MPG; X9013864); Itch (f; DAW; DEM); Malaria (1; X9419840); *Mycobacterium* (1; X13680821); Mycosis (1; X7898123); Ophthalmia (f; DEM); Pain (f; JFM; MPG); Paralysis (f; MPG); Parasites (f1; MPG; X15975735); Pharyngitis (f; DEM); Pleurisy (f; JFM); Proctosis (f; MPG); Pulmonosis (f; DEM); Respirosis (f; DEM); Rheumatism (f; MAX); Scrofula (f; DEM); Side Ache (f; JFM); Sinusitis (f; DEM); Sores (f; DEM; EB31:351); Sore Throat (f; DEM; JFM); Stomachache (f; EB31:351); Tonsillitis (f; DEM); Tuberculosis (1; X13680821); Vertigo (f; JFM); Worms (f; MAX; MPG); Wounds (f; EB31:351).

**Dosages:**

FNFF = ! Blackfoot chew leaves as a confection; Apache, Chirigahua, and Mescalero use to spice meat; Gosiute used seed of one variety for food. Leaves and flower heads used as spice and made into tea (DEM; FAC).

- Cheyenne sniff crushed leaves for headache and nosebleed (DEM).
- Comanche apply chewed leaves to bug and spider bites (DEM).

- Crow make salve for sores, using tea as astringent for eczema, and as deodorant (DEM).
- Flathead use the tea for bruises, cold, and itch (DEM).
- Gros Ventre use tea for high fever (DEM).
- Guatemalans take decoction for colic and dyspepsia (JFM; MPG).
- Lakota take tea for colds and diarrhea (DEM).
- Mayans take decoction for asthma, cough, and diarrhea, poulticing for colic and pleurisy (JFM).
- Meskwaki poultice leaves on old sores, or use tincture on scrofulous sores, taking the tea for sore throat and tonsilosis (DEM).
- Mexicans suggest 3–4 g powdered inflorescence for worms (MAX).
- Mexicans suggest 10% infusion before meals as orexigenic (MAX).
- Mexicans use leaf infusion for diarrhea (X15975735).
- Mexicans use tincture for rheumatism (MAX).
- Thompson rub decoction on arthritis and drink as geriatric cold medicine (DEM).

**Downsides:**

May cause contact dermatitis (X3970585). As of July 2007, the FDA Poisonous Plant Database listed 11 titles alluding to toxicity of this species.

**Extracts:**

Ethanollic extracts inhibited parasite reproduction (*Plasmodium yoelii yoelii* in mice) to 98.6% at the fifth day, as compared with the controls (ED<sub>50</sub> = 29.2 mg/kg) (X9419840). Leaf extracts active *in vitro* against *Entamoeba histolytica* and *Giardia lamblia* (X15975735). Ethanollic leaf extract showed inhibition of NF-kappaB down to a concentration of 25 µg/ml (X9013864). Hexane extracts inhibited the growth of *Mycobacterium tuberculosis* (X13680821). Aerial plant extracts antifungal (X7898123).

## ECUADORIAN SAGE (*Artemisia sodiroii* Hieron ex Sod.) +

### ASTERACEAE

**Notes:**

I don't know why Gupta (1995) selected this species to include among his 270 species. But that's why I selected it, because he did. If it really contains the famed antimalarial artemisinin, then it belongs here. Gupta reports in Spanish "artemisina" (MPG). The temperate species *Artemisia annua*, which produces the antimalarial artemisinin, does not grow well or set seed at equatorial latitudes.

I invented the common name, "Ecuadorian sage," to which some purists might object, thinking the common name "sage" should be restricted to the exotic genus *Salvia*. But many American *Artemisias* are also called "sage."

**Common Names:**

Ajenjo (Ecu.; MPG); Alcanfor (Ecu.; MPG); (Nscn).

**Activities:**

Analgesic (f; MPG); Anesthetic (f; MPG); Anthelmintic (f; MPG); Antiseptic (f; MPG); Antispasmodic (f; MPG); Bactericide (1; MPG); CNS-Depressant (1; MPG); Digestive (f; MPG); Hallucinogenic (1; MPG); Tonic (f; MPG).

**Indications:**

Bacteria (f; MPG); Childbirth (f; MPG); Cramps (f; MPG); Infection (f1; MPG); Pain (f; MPG); Spasms (f; MPG); Stomachache (f; MPG); Worms (f; MPG).

**Dosages:**

FNFF = ! Administered as a decoction or tea. 1 tbsp dry leaves and flowers/cup water, 1–2 tbsp 3×/day, or 6–8 branches/qt water, 1–2 cups 3×/day (MPG).

**Downsides:**

High doses may induce hallucinations followed by depressions (MPG).

**CUSPA (*Aspidosperma cuspa* (Humb., Bonpl. & Kunth) Blake) +  
APOCYNACEAE**

**Synonyms:**

*Aspidosperma decipiens* Müll. Arg.; *A. lucentivenium* S. F. Blake; *Conoria cuspa* Kunth; *Tabernaemontana eggersii* Markgr.

**Common Names:**

Amargo (Ven.; MPG); Amargosa (Ven.; MPG); Cuspa (Ven.; MPG); Kaláitpana (Ven.; MPG).

**Activities:**

Analgesic (f; MPG); Antiophidic (f; MPG).

**Indications:**

Arthrosis (f; MPG); Childbirth (f; MPG); Gastrostis (f; MPG); Pain (f; MPG); Rheumatism (f; MPG); Snake Bites (f; MPG); Stomachache (f; MPG).

**Dosages:**

FNFF = X.

**Downsides:**

Not covered (AHP; KOM). Here's what we read about "white quebracho": Large doses may cause cramps, diaphoresis, dyspnea, nausea, paralysis, vomiting, even death; side effects include headache, lethargy, salivation, stupor, and vertigo (HH2; PH2).

**REMO CASPI (*Aspidosperma excelsum* Benth.) +  
APOCYNACEAE**

**Synonyms:**

*Aspidosperma marcgravianum* Woodson; *Macaglia excelsa* (Benth.) Kuntze.

**Notes:**

Remo caspi, Spanish for "paddle wood," refers to the large buttress roots often used to make canoe paddles, lightweight yet highly durable (RAI). The tree produces valuable lumber for large multi-national logging companies.

**Common Names:**

Avore de Carapana (RAI); Arvore dos Mosquitos (RAI); Canalete (RAI); Carapanaua (RAI); Jaroeroe (RAI); Musara (RAI); Paddle Tree (Eng.; RAI); Paddlewood (Eng.; RAI); Parihoedoe (RAI); Porekai (RAI); Remo Caspi (Sp.; RAI); Yarula (RAI); Yaruru (RAI); Zwart Parelhout (RAI).

**Activities:**

Antimalarial (f1; RAI; X17404998); Antioxidant (1; RAI); Antiplasmodial (f1; RAI); Antiseptic (f; RAI); Antitumor (f1; RAI); Antitussive (f; RAI); Aphrodisiac (f; RAI); Bactericide



(f1; RAI); Carminative (f; RAI); Cicatrizant (f; RAI); Digestive (f; RAI); Febrifuge (f; RAI); Hypotensive (f; RAI); Stomachic (f; RAI); Tumor (f1; RAI); Vasodilator (f; RAI).

#### Indications:

Bacteria (f1; RAI); Bronchitis (f; RAI); Cancer (f1; RAI); Caries (f; RAI); Coughs (f; RAI); Diabetes (f; RAI); Fever (f; RAI); Gas (f; RAI); Hepatitis (f; RAI); High Blood Pressure (f; RAI); Impotence (f; RAI); Infection (f1; RAI); Inflammation (f; RAI); Malaria (f1; RAI; X17404998); Parasites (f; RAI); *Staphylococcus* (f1; RAI); Toothache (f; RAI); Tumors (f1; RAI); Worms (f; RAI); Wounds (f; RAI).

#### Dosages:

FNFF = ? One cup root decoction 3×/day (RAI); 2–3 ml root tincture 2×/day (RAI).

- Amazon natives use the root bark decoction for fever and malaria (RAI).
- Argentinians chew stem bark for toothache (RAI).
- Brazilians consider it antimicrobial, carminative, and stomachic, using for bronchitis, cancer, diabetes, fever, inflammation, intestinal parasites, and malaria (RAI).
- Ese'ejá and Shipibo-Conibo Indians chew on leafy stems or stem bark for toothache (RAI).
- Peruvians consider it antimicrobial, antiseptic, antitussive, aphrodisiac, cicatrizant, and vasodilatory, using for bronchitis, erectile function, fever, hepatitis, high blood pressure, malaria, toothache, and wounds (RAI).
- Shipibo-Conibo Indians use bark decoction for hepatitis, to prevent cavities, and to treat malaria (RAI).

#### Downsides:

None reported (RAI). As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

#### Extracts:

Containing a group of indole alkaloids, called aspidosperma alkaloids, several of which have shown antimalarial activity (RAI). Root bark previously shown to be antimicrobial; 6 antimicrobial alkaloids were isolated from the root bark (X17404998). The root bark also contains yohimbine, a vasodilator, considered in the treatment for erectile dysfunction (RAI). Antibacterial *in vitro* for *Staphylococcus* and *Bacillus* (RAI).

## WHITE QUEBRACHO (*Aspidosperma quebracho-blanco* Schltdl.) ++

### APOCYNACEAE

#### Illustrations:

fig 211-H, p 889 (ARG); p 401 (HH2)

#### Synonyms:

*Aspidosperma chakensis* Speg.; *A. crotalorum* Speg.; *A. quebracho* Griseb.; *A. quebracho-alba* Schlecht.; *A. quebracho-blanco* var. *pendula* Speg.; *Macaglia quebracho* (Schl.) Kuntze; *Macaglia quebracho-blanco* (Schlecht.) Lyons.; fide (HH2; USN).

#### Common Names:

Cacha (Bol.; DLZ); Casca de Quebracho (Por.; HH2); Ig Iraro (Bol.; Chiriguano; DLZ); Kebrako (Tur.; EFS); Quacha Quacha (Aym.; Bol.; DLZ); Quebracho (Eng.; CR2; USN); Quebracho Blanco (Bol.; Sp.; DLZ; USN); Ubirá-Ro-Puütá (Arg.; HH2); Weisser Querbracho (Ger.; HH2); White Quebracho (Eng.; Scn.; AH2; USN).

**Activities:**

Adrenolytic (1; X12050513; X7841224); Analgesic (1; X4758096); Anesthetic (1; LAF); Anti-asthmatic (f; EFS); Antimalarial (f1; EFS; HH2; X15234764); Antispasmodic (1; LAF; PH2); Aphrodisiac (1; LAF; PHR; X12050513); Bitter (f; PHR); Diaphoretic (1; PH2); Diuretic (1; LAF); Expectorant (f; PHR); Febrifuge (1; LAF); Hypotensive (1; LAF); Orexigenic (f; PH2); Respirastimulant (f; LAF; PHR; PH2); Sedative (1; PH2); Sialogogue (1; PHR; PH2); Stimulant (f; EFS); Tonic (f; EFS); Uterosedative (1; LAF); Vasoconstrictor (1; LAF).

**Indications:**

Anorexia (f; PH2); Asthma (f; EFS; PHR; PH2); Bronchosis (f; PHR; PH2); Cardiopathy (f; DLZ); Colds (f; HH2); Cramps (1; LAF; PH2); Dyspnea (f; PH2); Emphysema (1; HAD); Fever (1; LAF; PH2); High Blood Pressure (1; LAF); Impotence (1; LAF; PHR; X12050513); Insomnia (1; PH2); Malaria (f1; EFS; HH2; X15234764); Pain (1; LAF; X4758096); Respirosis (f; PHR); Spasms (1; LAF; PH2); Water Retention (1; LAF; PH2).

**Dosages:**

FNFF = ! Bark approved for food use (maximum use level is ca. 0.003%, e.g. ca. 35 ppm in baked goods, 30 ppm in candy) (LAF); 2.5–5 g bark tincture (HH2); 1–2 g bark/dose (HH2; PH2).

- Bolivians respect the leaf tea for heart ailments (DLZ).
- Paraguayans take the bark, boiled in water or mixed with maté (*Ilex paraguariensis*), to regulate fertility (HAD).

**Downsides:**

Not covered (AHP; KOM). “No health hazards are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). Large doses may cause cramps, diaphoresis, dyspnea, nausea, paralysis, vomiting, even death; side effects include headache, lethargy, salivation, stupor, and vertigo (HH2; PH2). As of July 2007, the FDA Poisonous Plant Database listed 15 titles alluding to toxicity of this species.

**Extracts:**

Bark extract showed strong *in vitro* antimalarial activity (X15234764). Bark extract binds to human penile alpha-adrenoceptors; the pro-erectile effects may predominantly be caused by its yohimbine content (X12050513).

**MARIPA (*Attalea maripa* (Aubl.) Mart.) +****ARECACEAE****Synonyms:**

*Attalea venatorum* (Poepp. ex Mart.) Mart.; *Cocos venatorum* Poeppig ex C. Martius; *Englerophoenix caribaea* Kuntze; *Englerophoenix regia* Kuntze; *Ethnora maripa* (Mart.) O. F. Cook; *Ethnora* spp.; *Maximiliana caribaea* Griseb. & H. Wendl.; *M. maripa* (CorrLa) Drude; *M. martiana* H. Karst.; *M. regia* Mart.; *M. stenocarpa* Burret; *M. venatorum* (Poepp. ex Mart.) H. A. Wendland ex Kerch; *Palma maripa* Aubl.; fide (POR; USN).

**Notes:**

Petioles used for making darts for blowguns (DAV).

**Common Names:**

Anaja (Por.; Sp.; POR); Ba Xi Zong Lü (China; POR); Bocapa (Waorani; SAR); Cucurite Palm (Eng.; POR); Cucurito (Sp.; Ven.; POR); Gaibama (Waorani; SAR); Huancava (Bol.; Sp.; POR); Inajá (Por.; POR); Inayuga (Peru; Sp.; LOR; MDD; POR); Incham (Peru; Sp.;

POR); Koheri Palm (Dutch; POR); Kokerit-Palm (Eng.; Guy.; POR); Königspalme (Ger.; POR; USN); Maripa (Col.; Por.; POR; SAR; USN); Maripa Palm (Eng.; POR; USN); Nampapagi (Waorani; SAR); Oom Pa (Waorani; SAR); Shapajilla (Peru; Sp.; LOR); Inayuga (Peru; Sp.; LOR; MDD). (Nscn).

**Indications:**

Colds (f; SAR).

**Dosages:**

FNFF = ! Cooked pulp and seeds edible (DAV); Infusions taken for cold (SAR).

## BLACK MANGROVE (*Avicennia germinans* (L.) L.) +

### AVICENNIACEAE

**Illustrations:**

p 129 (AUS)

**Synonyms:**

*Avicennia africana* P. Beauv.; *A. nitida* Jacq.; *Bontia germinans* L. (basonym); fide (USN).

**Notes:**

The flowers are much visited by bees. Smoke from the wood is said to be an effective mosquito smudge.

**Common Names:**

Ahilo:clo:cî (Mikasuki; AUS); Aili (Cuna; IED); Algarroba (Ma.; AUS); Amuati (Togo; UPW); Apariyu (Car.; Sur.; AUS); Árbol de Sal (Sal.; JTR); Asopro (Ghana; UPW); Biaza (Ivo.; UPW); Black Bush (Bwi.; AUS); Black Mangrove (Bel.; Eng.; AUS; BNA; USN); Blackwood Bush (Bah.; AUS); Bois de Mèche (Fwi.; AUS); Bukelek (Sen.; UPW); Cerebuna (Brazil; MPB); Chêne (Guad.; AUS); Chifle de Vaca (Pr.; AUS; JTR); Ciali (Mayo; Mex.; AUS); Ciriuba (Brazil; Tupi; AUS); Columnate (Cr.; JTR); Courida (Guy.; AUS); Cruda (Guy.; AUS); Ede (Edo; Nig.; UPW); Faux Palétuvier (Fr.; UPW); Green Turtle Bough (Bah.; JTR); Iguanero (Col.; AUS); Io (Gui. Bissau; UPW); Ishtaten (Sal.; JTR); Istaten (Sal.; JTR); Itolastilásti (Creek; AUS); Janju (Cameroons; UPW); Jelí Salada (Peru; RAR; SOU); Koroda (Arawak; Sur.; AUS); Limewood (Trin.; AUS); Madre de Sal (Mex.; AUS); Malanga (Gambia; UPW); Manga (Dor.; AHL); Mangel Blanc (Fwi.; AUS); Mangel Blancu (Dwi.; AUS); Mangle (Sp.; USN); Mangle Amarillo (Sp.; AUS); Mangle Blanca (Cuba; Mex.; Peru; Pr.; JTR; RAR); Mangle Bobo (Pr.; JTR); Mangle Gris (Fwi.; AUS); Mangle Iguanero (Ecu.; AUS); Mangle Negro (Cuba; Mex.; Pan.; Pr.; Sp.; AUS; IED; USN); Mangle Prieto (Col.; Cuba; Peru; Ven.; AUS; JTR; RAR); Mangle Salado (Pan.; Peru; JTR; RAR); Manglesito (Col.; JTR); Manglier (Haiti; AHL); Manglier Noir (Haiti; AHL; AUS); Mangro (Sierra Leone; UPW); Mangue Amarelo (Brazil; MPB); Mangue Branco (Brazil; MPB); Mangue Manso (Brazil; MPB); Ogbun (Nig.; Yoruba; UPW); Olive Mangrove (Eng.; JTR); Palétuvier Blanc (Fr.; Fwi.; Guy.; AUS; GMJ; UPW); Palétuvier Gris (Fwi.; AUS); Palo de Sal (Cr.; Nic.; AUS; JTR); Parwa (Mex.; AUS); Payuru (Guy.; Palikur; GMJ); Pere Siriúba (Brazil; MPB); Puyequé (Mex.; JTR); Salt Bush (Eng.; AUS); Salt Pond (Eng.; Fla.; JTR); Salt Pond Tree (Dwi.; AUS); Seriba (Brazil; Tupi; AUS); Seriba Tinga (Brazil; MPB); Siete Cueros (Pr.; AUS); Siriúba (Brazil; Tupi; AUS; MPB); Ufiri (Gui.; UPW); Würi Gurúra (Garifuna; IED). (Nscn).

**Activities:**

Anticancer (1; X16105231); Antiedemic (f; DAW); Antirheumatic (f; DAW); Antitumor (1; X16105231); Aphrodisiac (f; GMJ; JTR); Astringent (f; JTR); Cytotoxic (1; X16105231); Emol-

lient (f; JTR); Febrifuge (f; JTR); Hemostat (f1; MPB); Insectifuge (f1; IED); Poison (f; DAW); Tonic (f; DAW).

**Indications:**

Bites (f; UPW); Bleeding (f1; MPB); Cancer (f1; JTR; X16105231); Childbirth (f; UPW); Dermatitis (f1; UPW); Diarrhea (f1; MPB); Edema f; DAW); Enterosis (f; UPW); Fever (f; JTR); Hemorrhoids (f; JTR); Impotence (f; GMJ; JTR); Infection (f; DAW); Pharyngitis (f; DAW); Rheumatism (f; DAW); Sores (f; JTR); Sore Throat (f; DAW); Swelling (f; DAW); Toothache (f; MPB); Tumors (f1; JTR; X16105231); Wounds (f; JTR).

**Dosages:**

FNFF = ? Seeds toxic until germinating, when they are edible cooked. Resin sometimes consumed as food. Senegalese eat the cotyledons as famine food, but Burkill (1985–1995) describes them as “lethally toxic.” The leaves are coated with salt. (IED; JTR; UPW).

- Arabians consider the mucilaginous salty roots aphrodisiac (JTR).
- Cubans mix the resin with grease or vaseline for sores and tumors (JTR).
- Gabonese mix the bark with palm oil for fleas, chiggers, and itch (UPW).
- Guyana Creoles, “signaturely indoctrinated” view as aphrodisiac (GMJ).
- Liberians use the leaves in a hemorrhoid enema (UPW).
- Mexicans use the astringent bark decoction for diarrhea, hemorrhoids, and wounds (JTR).
- Nigerians make a paste from powdered bark for dermatitis (UPW).
- Panamanians suggest the gum from the trunk for throat infections (IED).
- Senegalese use bark decoction in childbirth and to expel afterbirth (UPW).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**Extracts:**

3-chloroexoylapachol, isolated from the leaf and twig extract, cytotoxic to human cancer cell lines (X16105231).

**AYAPANA (*Ayapana triplinervis* (Vahl) R. M. King & H. Rob.) +**

**ASTERACEAE**

**Synonyms:**

*Eupatorium ayapana* Vent.; *E. triplinerve* Vahl (basionym); fide (USN).

**Notes:**

My thanks to Leslie Taylor (RAI) for sharing with me her excellent reflections on this species, facilitating my compilation immensely. Nice work Leslie! Kapoor (1990) has given the names ayapana and cognates thereof for several Asian Indian dialects but clearly etymologically derived from Amerindian names. The plant was introduced into cultivation in the Old World as a medicinal plant, e.g., Bourbon, French West Indies, India, Malaysia, Mauritius, tropical Africa. Some companies specializing in “Amazon remedies” have launched products into the U.S. market recently, calling their products *Eupatorium triplinerve* and/or *Eupatorium ayapana*. Leslie Taylor, after researching the problem, maintains that these companies, using the Peruvian common name “asmachilca,” are in fact selling *Aristeguieta gayana*, NOT *Eupatorium ayapana* (RA2). Cubans apply the common name “ayapana” to *Eupatorium ayapanoides* Griseb., presumably endemic to Cuba, and deemed corroborant, tonic/neurasthenic, and used for cholera and fever (JFM). Early Indian authors did not give it the Sanskrit name

“ayapana,” and not all were excited about its medicinal potential. More than a century ago Watt’s Dictionary (1889–1892) said: “For long it held a high position as a medicinal plant, but the exaggerated ideas of its virtues have now exploded ... [I]nstances are not infrequent of medicines which at first had been too highly extolled having afterwards met with unmerited neglect; and such may, perhaps, be the case in respect to the plant in question” (DEP).

### Common Names:

Aiapana (Brazil; Ma.; GMJ; JFM; MPB; RAI); Aiapaina (RAI); Aipana (Peru; Shipibo/Conibo; EGG; RA2); Ajapana (Sp.; JFM); Allipa (Guj.; NAD); Ayapan (Ben.; Hindi; Yunani; KAP); Ayapana (Ben.; Hind.; Ma.; Mar.; Peru; Por.; Sanskrit; EGG; JFM; KAP; RAI; SKJ; USN; WOI); Ayapani (Ap.; Tam.; Tel.; SKJ; WOI); Ayapannii (Tam.; Tel.; NAD); Ayapanum (Kon.; NAD); Cagueña (Ma.; RAI; RA2); Cipo Capo Homen (Por.; JFM); Curia (Ma.; JFM; RA2); Daun Panahan (Malaya; IHB; RAI); Daun Perasman (Malaya; IHB; RAI); Diapalma Iapana (Ma.; RA2); Diapana (Creole; GMJ); Diarana-Guaco (Ma.; RA2); Erva Santa (Ma.; JFM); Iapana (Brazil; MPB); Japana (Brazil; Por.; GMJ; MPB; RA2); Japana Branca (Brazil; Por.; MPB; RA2); Leah Pana (Perak; IHB); Perna de Saracura (Ma.; JFM); Pool Root (Ma.; RA2); Porrete (Ma.; JFM); Quassia do Campo (Por.; JFM); Sekrepatoe Wiriwiri (Sur.; JFM); Sekrepatoe Wiwir (Ma.; RA2); Thé de l’Amazone (Fr.; GMJ); White Snakeroot (Ma.; RA2); Yapan (Palikur; GMJ); Yapana (RAI). (Nscn).

### Activities:

Alexiteric (f; RA2); Alterative (f; KAP); Analgesic (1; RA2); Anthelmintic (1; RA2); Antiagregant (f1; RA2); Anticoagulant (f1; RA2); Antidysenteric (f; MPB); Antiedemic (f; RA2); Antifeedant (f1; RA2); Antiinfective (f; RA2); Antineoplastic (f; RA2); Antiperiodic (f; NAD); Antiscorbutic (f; KAP); Antiseptic (f1; RA2; X11978434); Antitumor (f; RA2); Antitussive (f; RA2); Antiulcer (f; RA2); Ascaricide (1; RA2); Astringent (f; MPB; RA2); Bactericide (1; RA2; X11978434); Cardiotonic (f1; KAP; RA2; SKJ; WOI); Cicatrizant (f; RA2); CNS-Depressant (1; RA2); Depurative (f; RA2); Detergent (f; KAP); Diaphoretic (f; KAP; RA2; SKJ); Digestive (f; RA2); Emetic (f; RA2; WOI); Emmenagogue (f; RA2); Emollient (f; RA2); Expectorant (f; KAP); Febrifuge (f; RA2); Fungicide (1; RA2; X11978434); Hemostat (f1; KAP; MPB; RA2; SKJ); Hepatoprotective (f; RA2); Laxative (f; RA2; WOI); Parasiticide (f1; RA2); Pectoral (f; RA2); Pesticide (f1; RA2); Sedative (f1; RA2); Stimulant (f; DEP; KAP; MPB; RA2; SKJ); Stomachic (f; RA2); Sudorific (f; MPB; RA2); Taeniicide (1; RA2); Tonic (f; DEP; KAP; MPB; RA2; SKJ); Vermifuge (f1; RA2); Vulnerary (f; RA2).

### Indications:

Ague (f; KAP; NAD); Amenorrhea (f; RA2); Angina (f1; JFM); Aphtha (f; MPB); Ascariasis (1; RA2); *Bacillus* (1; RA2); Bacteria (1; RA2; X11978434); Bleeding (f1; KAP; MPB; RA2; SKJ); Bronchosis (f; RA2); Cancer (f; RA2); Cardiopathy (f1; KAP; RA2; SKJ; WOI); Cholera (f1; DEP; RA2); Colds (f; JFM; RA2); Constipation (f; JFM; RA2; WOI); Coughs (f; KAP; MPB; RA2); Depression (f; NAD); Dermatitis (f; RA2); Diarrhea (f; IHB; RA2); Dysentery (f; MPB); Dyspepsia (f; KAP); Edema (f; RA2); Enterosis (f; KAP; NAD); Fever (f; RA2); Flu (f; JFM; RA2); Fungus (1; RA2; X11978434); Gastrosis (f; KAP; RA2); Gingivosis (f; MPB; RA2); Headache (f; RA2); Hepatosis (f; RA2); High Blood Pressure (f; RA2); Infection (1; RA2; X11978434); Inflammation (f; MPB); Insomnia (f1; RA2); Malaria (f; NAD; RA2); Mycosis (1; RA2; X11978434); Nausea (f; RA2); Pain (1; RA2); Parasites (f1; RA2); Pneumonia (f1; JFM; RA2); Pulmonosis (f; IHB); Scurvy (f; JFM; KAP); *Shigella* (1; RA2); Snake Bite (f; DEP; MPB; RA2); Sores (f; KAP); Sore Throat (f; MPB; RA2); *Staphylococcus* (1; RA2); Stomachache (f; RA2); Stomatosis (f; RA2); Swelling (f; RA2); Tetanus (f; RA2); Thrombosis (1; RA2); Thrush (f; JFM); Tumors (f; RA2); Ulcers (f; RA2); Urethrosis (f; RA2); Vomiting (f; RA2); Worms (f1; RA2); Wounds (f; RA2); Yeast (f; JFM); Yellow Fever (f; JFM).

**Dosages:**

FNFF = ! Peruvians and French make tea from leaves. Surinamese use leaves to flavor turtle meat (EGG; JFM). 14–56 ml plant tea (KAP); ½–1 dram powdered plant (KAP); ½–2 oz 1:20 leaf tea (NAD); 1–2 g capsule 2×/day (RAI); 1 cup 1–3×/day for nausea and bleeding (RAI).

- Amazon Guyanans consider the plant alexiteric, digestive, febrifuge, laxative, and sudorific, using leaf tea for cold, flu, headache, high blood pressure, mouth sores, and ulcers (RA2).
- Argentinians and Peruvians consider it antineoplastic using for cancerous tumors (RA2).
- Argentinians view plant as emmenagogue, applying to cancerous tumors; plant infusion used to stimulate menstruation (AH2; RA2).
- Asian Indians take leaf tea as cardi tonic, diaphoretic, emetic, hemostat, laxative, stimulant, and tonic (RA2).
- Brazilians consider it antidiarrheal, astringent, stimulant, sudorific, and tonic, using the tea with honey for cough and sore throat, the leaf tea for diarrhea, fever, headache, indigestion, insomnia, nausea, queasy stomach, stomach ulcer, and vomiting; as a gargle for angina, gingivitis, oral ulcer, scurvy, and thrush (JFM; RA2).
- Brazilians use the leaf juice externally as an astringent and emollient, for snake bite, simple wounds, and stubborn ulcers, and taking internally as sedative (JFM; RA2).
- Brazilians use for angina, cholera, ear and eye problems, and gastric ulcers (RA2).
- Filipinos apply the leaf juice to foul ulcers (WOI).
- Guyanans use leaf decoction as alexiteric, digestive, febrifuge, and sudorific, for colds, diarrhea, gripe, and high blood pressure (RA2).
- Malayans consider it sudorific, using for bronchitis and diarrhea (RA2).
- Palikur (French Guiana) take decoction to relieve malarial nausea and vomiting (RA2).
- Peruvians consider the plant antidiarrheal, antitumor, astringent, cicatrizant, febrifuge, stomachic, stimulant, and sudorific, using leaf infusions, decoctions, baths, and plasters to protect the liver, for inflammation of the urinary tract, edema, external hemorrhages, and for tetanus; the shoot tea is used as a digestive stimulant (EGG; RA2).
- Puerto Ricans drink tea for fever (JFM).
- Shipibo-Conibo take internally for colic, edema, stomach pain, and as a depurative. They paste leaves on wounds and hemorrhages and drink the leaf juice for internal hemorrhages, snake bite, and vomiting (EGG; RA2).
- Surinamese take decoction for diarrhea (RA2).
- Trinidadans use decoction for chest colds, constipation, fever, flu, pneumonia, and yellow fever (JFM).

**Downsides:**

Contains natural coumarins which may thin the blood (RA2). As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

Rich source of coumarin chemicals which serve as the precursor for several anticoagulant drugs, most notably warfarin. Another coumarin, hernarin, used as an antitumor remedy is cytotoxic to cancer cells, including MDR and leukemic cells (RA2). Flower EO antibacterial (staph, cholera, pneumonia, and shigella), antimicrobial, antiparasitic (*Ascaris*), and anthelmintic (*Taenia*). Petroleum ether extract of leaves showed higher bactericidal and fungicidal activity than the methanolic extract (X11978434).



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# B

## BRAZILIAN ABSINTH (*Baccharis articulata* (Lam.) Pers.) + ASTERACEAE

### Illustrations:

fig 246D, p 1034 (ARG)

### Synonyms:

*Baccharis bracteata* Hook.; *B. gaudichaudiana* DC.; *Conyza articulata* Lam.; *Molina articulata* (Lam.) Less; fide (HH2 MPG).

### Notes:

Not wanting to use the scientific name as a common name, nor to use the very generic common name “carqueja,” I coined the name “Brazilian absinth” when I read that this species replaces wormwood in Brazilian veterinary medicine, especially in treating diarrhea in cattle (MPB).

### Common Names:

Caacambuyguazu (Arg.; Guarani; MPG); Caapeguazu Yaguarete Caa (Arg.; Guarani; MPG); Carqueija (Arg.; MPG); Carqueja (Arg.; MPG); Carqueja Blanca (Arg.; MPG); Carqueja Crespa (Arg.; MPG); Carqueja Doce (Brazil; MPB); Carqueja do Morro (Brazil; MPB); Carqueja Miuda (Brazil; MPB); Carquejinha (Brazil; MPB); Carqujilla (Arg.; MPG); Chirca Melosa (Par.; MPG); Killa Fosis Kila Foshi (Araucano; Arg.; MPG); Tañoni (Arg.; Toba; MPG); Vas-soura (Sp.; HH2).

### Activities:

Abortifacient (f1; MPG); Antioxidant (1; X12797477); Antirheumatic (f; MPG); Antiseptic (f1; MPG; X10932751); Antispasmodic (f; MPG); Antiviral (1; X10932751); Bitter (f; MPB); Digestive (f; MPB; MPG); Diuretic (f; MPB); Febrifuge (f; MPB); Hepatotonic (f; HH2; MPG); Stomachic (f; HH2; MPG); Tonic (f; MPB); Uterotonic (f; HH2); Vulnerary (f; HH2).

### Indications:

Anemia (f; MPB); Arthrosis (f; MPG); Cholera (f; MPB); Debility (f; MPB); Diarrhea (f; MPB); Dyspepsia (f; MPB); Fever (f; MPB); Impotence (f; MPG); Infection (f1; MPG; X10932751); Infertility (f; MPG); Rheumatism (f; MPG); Spasms (f; MPG); Viruses (1; X10932751); Wounds (f; HH2).

### Dosages:

FNFF = X?

- Argentinians use the shoots as antispasmodic, digestive, febrifuge, hepatotonic, and stomachic (MPG).
- Brazilians use the bitter tonic herbs as digestive, febrifuge, and diuretic, for anemia, dyspepsia, cholera morbus, and weakness (MPB).
- Brazilian vets use like wormwood for treating diarrhea in cattle (MPB).
- Paraguayans use against diabetes and high cholesterol (MPG).



**Downsides:**

Toxic in animals ipr (MPG).

**Extracts:**

4'-O-beta-D-glucopyranosyl-3',5'-dimethoxybenzyl-caffeate showed similar antioxidant capacity compared to Trolox (X12797477).

## BACOPA (*Bacopa monnieri* (L.) Pennell) ++

### SCROPHULARIACEAE

**Illustrations:**

pl 696C (KAB)

**Synonyms:**

*Bacopa monniera* (L.) Wettst.; *Bramia indica* Lamarck; *B. monniera* (L.) Pennell; *Calyptriplex obovata* R. & P.; *Gratiola monniera* L.; *Habershamia cuneifolia* (Michx.) Raf.; *Herpestis cuneifolia* Michx.; *H. monniera* (L.) Kunth; *H. procumbens* Sprengel; *Limosella calycina* Forsskal; *Lysimachia monniera* L. (basonym); *Moniera africana* Pers.; *M. brownei* Michx.; *M. cuneifolia* Michx.; *M. pedunculosa* Michx.; *Septas repens* Loureiro; fide (BAZ; USN).

**Notes:**

Does this belong in a Latin American herbal. At first I thought not, but USN defines it as tropical. Austin (2004) notes its uncertain nativity in Florida but other scholars consider it native there. It qualifies according to my entry criteria; reported native, in this case pantropical (by USN). According to McGuffin et al. (2000), generally *Bacopa monniera* is "brahmi" in Kerala (south India) and "mandukaparni" in north and west India, while *Centella asiatica* is called "brahmi" in north and west India and "mandukaparni" in Kerala. Burkill (1985) notes that even its Malay name, "bëremi," is Sanskritic: "Natives of India consider it the 'brahmi' plant of their ancient medicine, a plant eaten after a religious fast and credited with magic powers. Being a vegetable the Malays sometimes call it 'sayor bëremi.'" I don't yet find it reported from Haiti, but it is reported from Belize, Cuba, Florida, Peru (Lomas); it is even a declared noxious aquatic weed in California (USN).

**Common Names:**

Adhabirni (Ben.; KAB; NAD); Adha-Birni (India; USN); Bacopa (Eng.; Por.; Scn.; AH2; GMJ; USN); Bam (Guj.; SKJ); Bama (Bom.; DEP; KAB); Bamba (Mah.; NAD); Barambi (Hindi; KAB); Barna (Ker.; SKJ); Beami (Mal.; DEP); Bëremi (Malaya; IHB); Bharati (Sanskrit; KAB); Brahmi (Ayu.; Hindi; Sanskrit; AH2; KAB); Brahmi-Sac (Ben.; WO2); Brambhi (Hindi; EFS); Brähmī (India; Nepal; Tam.; AH2; KAB; OFF); Breml (Malaya; KAB); Brhmisak (Ben.; KAB; NAD); Brmhacharini (Sanskrit; KAB); Brmhakanyaka (Ben.; KAB); Dhop Kammi (Ben.; NAD); Divya (Sanskrit; KAB); Divyateja (Sanskrit; KAB); Gholā (Mah.; SKJ); Graciola (Cuba; AVP); Herb of Grace (Eng.; Ocn.; AH2; AUS); Hierba de Culebra (Pr.; AVP); Indian Pennywort (Eng.; Ocn.; AH2); Jalabrahmi (Sanskrit; NAD); Jalamimba (Ben.; WO2); Jalinin (Urdu; KAB); Jalnavera (Mah.; WO2); Jalneem (Hindi; KAB; SKJ); Kapotavanka (Sanskrit; KAB); Kapotavega (Sanskrit; KAB); Krishnaparna (Oriya; KAB); Lunuvila (Sin.; KAB); Mahaushadhi (Sanskrit; KAB); Mandukamata (Sanskrit; KAB); Mandukaparni (India; AH2); Mandúki (Sanskrit; DEP; KAB; NAD); Matsyakshi (Sanskrit; KAB); Medhya (Sanskrit; KAB); Moneywort (Eng.; USN); Neerbrahmi (Mal.; Mar.; Tam.; WO3); Nibrāmi (Tam.; KAB); Nirābrahmi (Sanskrit; Urdu; KAB; WO2); Nirpirimi (Tam.; KAB); Nirubrahmi (Hindi; Kan.; KAB; WO3); Pa Chi T'ien (China; EFS; KAB); Pak Mi (Thai; IHB); Parameshthini (Sanskrit; KAB); Petite Véronique (Wi.; AUS; GMJ); Pu Tiao Ts'ao

(China; EFS); Rau Dâng (FAC); Safed Chamni (Hindi; India; KAB; USN); Safed Kammi (Hindi; NAD); Sambranichettu (Tel.; KAB; WO2); Saraswati (Sanskrit; KAB); Saumyalata (Sanskrit; KAB); Sharada (Sanskrit; KAB); Soma (Sanskrit; KAB); Surasa (Sanskrit; KAB); Surashreshtha (Sanskrit; KAB); Sureshta (Sanskrit; KAB); Survachala (Sanskrit; KAB); Svetakamini (Sanskrit; NAD); Svetchamni (Hindi; KAB); Swayambhuvi (Sanskrit; KAB); Thyme-Leaved Gratiola (Eng.; EFS; NAD); Ti Quinine (Creole; GMJ); Vaidhatri (Sanskrit; KAB); Vallari (Sanskrit; KAB); Vara (Sanskrit; KAB); Vayastha (Sanskrit; KAB); Verdolaga de Costa (Cuba; AUS); Véronique (Fwi.; AUS); Vira (Sanskrit; KAB); Water Hyssop (Eng.; Ocn.; AH2; FAC); Ya'ax-Kach (Maya; AUS); Yerba de Culebra (Pr.; AUS).

### Activities:

Adaptogenic (1; WOI; X12957224); Analgesic (f; DEP; KEB); Antiamnesic (1; X16053272); Anticancer (1; MPI); Anticonvulsant (f; KEB); Antidepressant (1; X12046860); Antidote (f; DEP); Antiedemic (1; X16343831); Antifatigue (1; NP6(6):17); Antiinflammatory (f1; KEB; WO3; X16343831); Antileishmanic (1; X11839209); Antioxidant (1; ABS; PR14:180; X12865091; X13680815; X16226278); Antiparalytic (1; GMJ); Antiprostaglandin-E2 (1; X16343831); Antispasmodic (f; NP6(6):17); Antistress (1; PM8:423; X12410544); Antitumor (1; WOI); Antiulcer (1; PM8:423; X13678238; X15088689); Anxiolytic (1; NP6(6):17; WOI); Aperient (f; DEP; KAB; WOI); Aphrodisiac (f; EB32:308; KAB); Bactericide (1; X11839209; X16334271); Broncho-Vasodilator (1; X12686438); Calcium-Antagonist (1; JNP65:1759); Cardiotonic (f1; KAB; KAP; MPI; WOI); Cerebrotonic (f; KEB; WO2); Convulsant (1; MPI); Diuretic (f; DEP; MPI; WOI); Emetic (f; DEP; KAB); Enterotonic (f; IHB); Expectorant (f1; KAB; WOI); Febrifuge (f; NP6(6):17); Fungicide (1; X15022161); GABA-nergic (1; NP6(6):17; WO2); Gastroprotective (1; X15088689); Glutaminergic (1; WO3; X16053272); Hepatoprotective (1; PR15:643); Herbicide (1; X15022161); Hydragogue (f; AUS); Hypertensive (1; KAB; MPI; NAD); Hypotensive (1; NAD; WOI); Memorigenic (1; MPI; PR14:180; WOI); Myorelaxant (f1; GMJ); Negative-Chronotropic (1; MPI); Nervine (f; DEP; EFS; KAB); Neuroprotective (1; X16500707); Neurotonic (f1; KAP; MPI; X16500707); Nootropic (f1; X15898709); Purgative (f; AUS; DEP; KEB); Respiratonic (f; KAB); Rubefacient (f; UPW); Sedative (1; MPI; WOI; WO2); Spasmogenic (1; MPI; WO2); Tonic (f; DEP; EB32:308; WOI); Toxic (f; EFS; WO2); Tracheorelaxant (1; JNP65:1759); Tranquilizer (1; MPI; WOI; WO2); Vasoconstrictor (1; KEB; MPI); Vasodilator (1; X12686438); Vermifuge (f; IHB).

### Indications:

Aging (f; KEB); Alzheimer's (1; MPI; PR14:180; WOI; X12865091; X16914834); Amnesia (1; X16053272); Anemia (f; KAB); Anxiety (f1; NP6(6):17; WOI; WO2); Aponia (f; KAP; NAD); Ascites (f; KAB); Asthenia (f; KAP); Asthma (f; JNP65:1759; MPI; WOI); Backache (f; NP6(6):17); Bacteria (1; X11839209; X13678238; X16334271); Biliousness (f; KAB; NAD); Bronchosis (f; JNP65:1759; KAP; WOI); Burns (f; NPM); Cancer (1; MPI; WOI); Cardiopathy (f1; KAB; KEB; KAP; MPI; WOI); Catarrh (f; DEP; KAB); Constipation (f; KEB); Convulsions (f; KEB); Cough (f; KAP); Depression (1; X12046860); Diarrhea (f; WOI); Dyspepsia (f; KAB); Dyspnea (f; AUS); Dysuria (f; KAP); Eczema (f; SKJ); Edema (1; X16343831); Elephantiasis (f; KAB); Epilepsy (f12; DEP; EB32:308; KEB; MPI); Erysipelas (f; KAB); *Escherichia* (1; X16334271); Fatigue (1; NP6(6):17); Fever (f; EB32:308; KAB; NP6(6):17); Fungus (1; X15022161); Headache (f; NAD); *Helicobacter* (1; X13678238); Hepatosis (1; PR15:643); High Blood Pressure (1; NAD; WOI); Hoarseness (f; DEP; KAP; WOI); Hysteria (f; EB32:308; KAB; KAP; NAD); Impotence (f; EB32:308; KAB; KEB); Infections (1; X11839209; X13678238; X15022161; X16334271); Inflammation (f1; JNP65:1759; KEB; WO3; X16343831); Insanity (f; DEP; EB32:308; KAP; KEB; MPI; WOI); Insomnia (1; MPI; WOI; WO2); *Leishmania* (1; X11839209); Leprosy (f; KAB; SKJ); Lethargy (f; KEB; WOI); Leukoderma (f; KAB); Low Blood Pressure (1; KAB; MPI; NAD); Malaria (1; GMJ); Memory (1; MPI; PR14:180; WOI); Mycosis (1; X15022161); Neurasthenia (1; KAP; KEB); Neurosis (f1;

EB32:308; X12865091); Pain (f; DEP; KEB); Phthisis (f; NAD); Pulmonosis (f; AUS); Rheumatism (f; DEP; EB32:308; WOI); Ringworm (f; SKJ); Sarcoma (1; WO3); Scabies (f; KAB); Snake Bite (f1; EB32:308; KAB); Spasms (f; NP6(6):17); Splenomegaly (f; KAB; SKJ); Stomatosis (f; AUS); Stress (1; NP6(6):17; PM8:423; WOI; X12410544); Stroke (f; KEB); Swelling (f1; NAD; X16343831); Syphilis (f; KAB); Threadworm (f; EB32:308; IHB); Tremors (f; AUS); Tumors (f1; KAB; MPI; WOI; WO3); Ulcers (1; PM8:423; X13678238; X15088689); VD (f; KAB); Water Retention (f; WOI); Worms (f; EB32:308; IHB).

### Dosages:

FNFF = ! Herb eaten in salads and soups, cooked, or pickled (FAC). Leaves and stems eaten in west Bengal (WO2). 8–16 ml herb tea (KAP); 5–10 g powdered herb (KAP); 2–6 g dry herb or 4–12 ml fluid extract (1:2) (KEB); alcoholic extract given at 50 mg/kg in rats had tranquilizing activity. With me at 100 kg, that would be 5 g tincture, an oral dosage with which I'd feel safe. Remember, an ounce is ~30 g. Some capsules are standardized for 20% bacosides A & B. Two capsules containing 150 mg extract (20:1) — equiv. to 300 mg dry herb/day/12 weeks (NP6(6):17).

- Asian Indians give leaf juice to children for bronchosis and diarrhea (WO2).
- Asian Indians paste leaves onto rheumatism (WO2).
- Asian Indians take the leaves, fried in clarified butter, for hoarseness (NAD).
- Asian Indians take with ghee, ½-1 tola 2×/day with milk, for aphonia, epilepsy, hoarseness, hysteria, insanity, and neurasthenia (NAD).
- Ayurvedics use the emetic laxative herb for anemia, ascites, biliousness, dyspepsia, inflammation, leprosy, splenomegaly, and tumors (KAB).
- Hindus use the aperient, diuretic, and nervine tonic for epilepsy, hoarseness, and insanity (KAB).
- Sri Lankans take the plant for constipation, elephantiasis, and erysipelas (KAB).
- Yunani consider the herb aphrodisiac, depurative, and expectorant, using for diarrhea, fever, leukoderma, scabies, and syphilis (KAB).

### Downsides:

Not covered (AHP; KOM). No interactions reported. *Bacopa* takers in one study reported more dry mouth, fatigue, and nausea (NP6(6):17). “Brahmine is highly toxic,” hypotensive at 0.5 mg/kg in cats (WO2). As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

### Extracts:

In Indian pediatric experiments, 1 tsp brahmi extract (pineapple flavored) 3×/day for 3 months, improved memory scores and decreased error rates (Sharma et al., 1987). 100 µg brahmi tincture (alcoholic extract) equivalent to 58 µg vitamin E (Tripathi et al., 1996). *Bacopa monnieri* extracts (BME) standardized to 38% bacoside-A, at 10–50 mg/kg, 2×/day for 5 days, showed dose-dependent antiulcerogenic activity (PM8:423); at 20 mg/kg, for 10 days, 2×/day, helped heal gastric ulcers. BME at 20 mg/kg showed no effect on acid-pepsin secretion, increased mucin secretion, while decreasing cell shedding with no effect on cell proliferation. BME showed significant antioxidant effect (PM8:423). BME inhibited the formation of reactive species and DNA damage in a dose-dependent manner suggesting therapeutic potential in treatment or prevention of neurological diseases (X12865091). BME at 1,000 µg/ml showed anti-*Helicobacter pylori* activity *in vitro* and at 10 µg/ml increased *in vitro* of prostanoids (PGE and PGI<sub>2</sub>) in human colonic mucosal incubates (X13678238). Recent data show that the herb, long known for antiaging and memory-enhancing activities, lowers ABeta-amyloid cerebral plaque as much as 60% in mice (X16914834). It has potential in Alzheimer's. Bacopa's neuroprotective effects were comparable to those of l-deprenyl (X16500707). Extract bactericidal for *E. coli* (X16334271). Bacopasaponin-C: antileishmanic (X11839209).

**PEACH PALM (*Bactris gasipaes* Kunth) ++****ARECACEAE****B****Synonyms:**

*Bactris gasipaes* H.B.K.; *B. speciosa* (Mart.) H. Karst.; *B. utilis* (Oersted) Benth. et Hook ex Hamsely; *Guilielma chontaduro* Triana; *G. gasipaes* (HBK) L. H. Bailey; *G. speciosa* Mart.; *G. utilis* Oersted; fide (POR).

**Common Names:**

Banin (Cashibo; RAR); Cachipay (Col.; Sp.; POR); Chonta (Col.; Sp.; POR; USN); Chontaduro (Col.; Peru; Sp.; DAV; POR); Chonta Ruro (Ecu.; Peru; Sp.; POR; RAR); Coeur de Palmier (Fr.; POR); Gachipaes (Sp.; Ven.; POR; USN); Jamiina (Sa.; SOU); Madera Birijari Matto? (Culina; RAR); Masato (Sp.; POR; USN) (usually applies to fermented fruits, JAD); Palepi (Fr.; Fr. Guy.; POR); Palmier Parépou (Fr.; POR); Palmier Pêche (Fr.; POR; USN); Palmier Pejibaye (Fr.; POR); Panni (Peru; RAR); Parépou (Fr.; Fr. Guy.; POR; USN); Peach Palm (Eng.; POR; USN); Pejibaye (Cr.; Sp.; POR; USN); Pejubayu (Ca.; Garifuna; IED); Pewa (Malay; POR); Pewa Nut (Eng.; Trin.; POR); Pfirsichpalme (Ger.; POR; USN); Pifayo (Sa.; SOU); Pifuanyo (Sa.; RAR); Pifuayo (Sa.; RAR); Pijiguao (Sp.; Ven.; POR); Pijuayo (Peru; Sp.; POR; SOU; USN); Pinjuanyo (Sa.; SOU); Pish Guayo (Que.; RAR); Pisho Guayo (Sa.; SOU); Poporr (Amuesha; RAR); Puca Pijuaio (Sa.; RAR); Pupunha (Brazil; Por.; POR; USN); Sara Pifuayo (Sa.; RAR); Sara Pijuayo (Sa.; SOU); Tao Zong (China; POR).

**Activities:**

Lactagogue (f; RAR).

**Indications:**

Dyspepsia (f; IED); Headache (f; DAD); Pain (f; DAD); Stomachache (f; DAD).

**Dosages:**

FNFF = !!

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

SOUL VINE (*Banisteriopsis caapi* (Spruce ex Griseb.) C. V. Morton) +

## MALPIGHIACEAE

**Illustrations:**

fig 3 (DAV)

**Synonyms:**

*Banisteria caapi* Spruce ex Griseb. (basonym); *Banisteria quitensis* Nied.; *Banisteriopsis inebrians* C. V. Morton; *Banisteriopsis quitensis* (Nied.) C. V. Morton; fide (USN).

**Notes:**

My good and most distinguished late Harvardian friend, Richard Evans Schultes, has a distinguished illustration of Richard Spruce, in Schultes and Raffauf (1990) (SAR). Schultes acknowledges Spruce's identification of the narcotic caapi in 1851. In all my compilations of common names from Latin America, in this one only, the tribal names (from SAR) outnumber the other tribal names (from non-SAR sources) significantly but not surprisingly. Though a most serious ethnobotanist, Schultes was most interested in the mind-altering plants.

**Common Names:**

Amarron Huasca (Ingano; SAR); Añushi Ayahuasca (Peru; SOU); Aso Yajé (Siona; SAR); Ayahuasca (Que.; Sp.; CR2; SAR; USN); Ayahuasca Amarillo (Peru; SAR); Ayahuasca Blanco (Peru; SAR); Ayahuasca Negro (Peru; SAR); Beji Yajé (Siona; SAR); Bejuco Bravo (Peru; SOU); Bejuco de Oro (Col.; SAR); Bia Yahe (Siona; SAR); Caapi (Brazil; Por.; Tupi; MPB; SAR; USN); Caasi (Bol.; Chiriguano; DLZ); Cayapi (Peru; RAR); Ciel Ayahuasca (Peru; SAR); Ga Tokami Yai Yajé (Siona; SAR); Hamo Weko Yajé (Siona; SAR); Hayawasca (Peru; SOU); Horo Yahe (Siona; SAR); Iagê (Brazil; MPB); Ijona (Peru; SOU); Inde Huasca (Ingano; SAR); Kahee Riama (Tukano; SAR); Kahi Somoma (Tukano; SAR); Kahi Vaibucuru Rijoma (Tukano; SAR); Kaju Uri Kahi Ma (Tukano; SAR); Kamalampi (Piro; RAR); Kido Yajé (Siona; SAR); Kuma Basere (Barasana; SAR); Kwi Ku Yajé (Siona; SAR); Lluasca (Peru; SOU); Mado (Culina; RAR); Mado Bibadi (Culina; RAR); Mene Kaji Ma (Tukano; SAR); Mi-Hi (Kubeo; SAR); Myoki Buku Guda Hubeama (Barasana; SAR); Natema (Jibaro; SAR); Natemoni (Peru; SOU); Nea Yyahe (Siona; SAR); Nepi (Colorado; SAR; SOU); Ñucñu Huasca (Peru; Que.; RAR; SOU); Onñaanhon (Peru; SOU); Oofa (Kofan; SAR); Pine (Cayapa; SAR); Punga Huasca (Peru; SOU); Rambí (Sharanahua; RAR); Rami (Culina; RAR); Rami Wetsem (Culina; SAR); Sese Yahé (Siona; SAR); Shillinto (Peru; SAR); Shimbaya Huasca (Que.; SAR); Shuri (Sharanahua; RAR); Shuri Fisopa (Sharanahua; SAR); Shuri Oshinipa (Sharanahua; SAR); Shuri Oshpa (Sharanahua; SAR); Sia Sewe Yahe (Siona; SAR); Sise Yahe (Siona; SAR); Soga del Muerto (Peru; SOU); So'om Wawai Yajé (Siona; SAR); Soul Vine (Eng.; DAV); Spirit Vine (Eng.; DAV); Tsipu Makuni (Kulina; SAR); Tsiputsueni (Kulina; SAR); Tsipuwetseni (Kulina; SAR); Undi (Sharanahua; RAR); Usebo Yajé (Siona; SAR); Waibu Hua Guda Hebeama (Barasana; SAR); Waibuku Kihoama (Barasana; SAR); Wai Yajé (Siona; SAR); Wati Yajé (Siona; SAR); Wehi Yahe (Siona; SAR); Weki Yajé (Siona; SAR); Weko Yajé (Siona; SAR); Wenan Duriguda Hubeama (Barasana; SAR); Yage (Col.; Por.; Sp.; CR2; SAR; USN); Yagué (Chiquitano; DLZ); Yahe (Kofan; SAR); Yai Yahe (Siona; SAR); Yai Yajé (Siona; SAR); Yaiya Suava Kahima (Barasana; Tukano; SAR); Yajé del Monte (Peru; SOU); Yajé Oco (Siona; SAR); Zi Simi Yajé (Siona; SAR); Zoroopsi (Peru; SOU). (Nscn).

**Activities:**

Anthelmintic (1; CRC; FNF); Antifeedant (1; FNF); Antileishmanic (1; CRC; FNF); Antimalarial (1; CRC; FNF); Antiparkinsonian (1; CRC; FNF; X12895680); Antitrypanosomic (1; CRC; FNF); Aphrodisiac (1; CRC; FNF); Bactericide (1; CRC; FNF); Bradycardiac (1; CRC; FNF); Bronchospasmogenic (1; FNF); Cardiovascular (1; CRC; FNF); CNS-Stimulant (1;

CRC; FNF); Convulsant (1; CRC; FNF); Cytotoxic (1; CRC; FNF); Desmutagenic (1; CRC; FNF); Emetic (1; DAV); Euphoric (1; PH2); Hallucinogenic (1; CRC; FNF; PH2); Hyperkinetic (1; FNF); Laxative (1; DAV); MAOI (1; CRC; FNF; PH2; X12895680); Phototoxic (1; CRC; FNF); Protisticide (1; CRC; FNF); Psychotropic (1; CRC; FNF; PH2); Purgative (1; DAV); Respiradepressant (1; FNF); Spinodepressant (1; CRC; FNF); Telepathic (1; DAV); Tremorigenic (1; CRC; FNF); Uteroactive (1; CRC; FNF).

**Indications:**

Amebiasis (1; CRC); Bacteria (1; CRC; FNF); Bronchosis (1; CRC); Constipation (1; CRC; DAV); Encephalosis (1; HHB); Hypokinesia (1; HHB); Impotence (1; CRC; FNF); Infection (1; CRC; FNF); *Leishmania* (1; CRC; FNF); Lethargy (1; CRC; HHB); Malaria (1; CRC; FNF); Myosis (1; HHB); Obesity (1; FNF); Paralysis (1; HHB); Parkinson's (1; CRC; FNF; X12895680); Spasms (1; CRC); Trypanosomiasis (1; CRC; FNF); Worms (1; CRC; FNF).

**Dosages:**

FNFF = ! 10 mg individual, 30 mg daily (parenteral) (HHB).

**Downsides:**

Not covered (AHP; KOM); 300 mg alkaloids may lead to collapse, nausea, ringing of the ears, and vomiting (PH2). As of July 2007, the FDA Poisonous Plant Database listed 26 titles alluding to toxicity of this species.

**Extracts:**

Stem extracts show the extract and harmaline had a concentration-dependent inhibition of MAO-A (IC<sub>50</sub> = 1.24 µg/ml and IC<sub>50</sub> = 4.54 nM, respectively) but had little effect on MAO-B. The extract (2.5 mg/ml) caused a significant increase in [3H]dopamine from rat striatal slices, as did 200 µM harmine and 6 µM harmaline, giving support for its use in treating Parkinson's (X12895680). Harmine antiencephalotic, antiparalytic, and antiparkinsonian. Harmaline antiparkinsonian (HHB).

**SALTWORD (*Batis maritima* L.) +****BATACEAE****Illustrations:**

p 135 (AUS)

**Common Names:**

Akulikuli Kai (Haw.; AUS); American Saltwort (Eng.; HOC); Banana di Rif (Aruba; Curacao; AUS); Barilla (Cuba; Dor.; Pan.; Pr.; AUS; AVP; JTR); Barilla de las Antillas (Wi.; AUS); Batis du Bord de Mer (Guad.; AVP); Beachwort (Eng.; AUS); Chamis (Mex.; AUS); Crisse Marine (Fr.; Haiti; AHL; AUS); Herbe a Crabes (Fwi.; AUS); Herbe de St. Pierre (Fr.; AUS); Jamaica Samphire (Jam.; AVP); Lechuga de Mar (Nic.; AUS); Perce Pierre (Guad.; AVP); Pickleweed (Eng.; AUS); Planta de Sal (Pr.; AUS); Rifbanantje (Aruba; Curacao; AUS); Saimbhir (Gaelic; AUS); Saladilla (Mex.; AUS); Salt Plant (Vi.; AUS); Saltwort (Eng.; AUS; USN); Samphire (Eng.; AUS); Sea Fennel (Eng.; Jam.; AUS); Turtle Weed (Eng.; HOC); Vidrillo (Mex.; AUS); Vidrio (Mex.; AUS). (Nscn).

**Activities:**

Antiscorbutic (f; AHL); Depurative (f; EGG); Diuretic (f; PCS); Orexigenic (f; PCS); Vulnerary (f; AHL).

**Indications:**

Anorexia (f; PCS); Appetite (f; PCS); Arthrosis (f; EGG); Asthma (f; AUS; HOC); Constipation (f; AUS); Dermatitis (f; AUS; JTR); Dysmenorrhea (f; AUS); Goiter (f; AUS); Gonorrhoea (f; AUS); Gout (f; AUS; EGG); Oliguria (f; PCS); Pain (f; AUS); Psoriasis (f; AUS; HOC); Rheumatism (f; AUS; EGG); Scrofula (f; AHL); Sores (f; AUS); Syphilis (f; AUS; HOC); VD (f; AUS); Wounds (f; AHL).

**Dosages:**

FNFF = ! Eaten as “pre-salted salad,” pickled, potherb, or puree (AUS; EGG; IED).

- Cubans use as antiscorbutic (AUS).
- Dominicans suggest the plant, macerated in vinegar, as antiscorbutic (AHL).
- Mexicans use for dermatoses (JTR).
- Peruvians drink the infusion for dermatosis (EGG).
- Peruvians eat the plant as a depurative, for gout and rheumatism (EGG).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

## COW'S FOOT (*Bauhinia forficata* Link) +

### CAESALPINIACEAE

**Illustrations:**

p 347 (MPG)

**Synonyms:**

*Bauhinia aculeata* Vell.; *B. brasiliensis* Vog.; *B. candicans* Benth.; (fide MPG; POR).

**Notes:**

My notes relate to other species (maybe!!!). I was amazed to hear from my Belizean friend, Rosita Arvigo, and my Peruvian shaman very similar folklore about a Mayan and an Amazonian *Bauhinia* species, respectively. “This is an old remedy for birth control among Mayan women, now apparently almost forgotten. Prepared from a handful of vine that has been boiled in 3 cups of water for 10 min, a cup is consumed before each meal all during the menstrual cycle. It is said that this dose is effective for up to 6 months. Drinking this decoction during 9 menstrual cycles is said to produce irreversible infertility in women.” That’s quoted from Arvigo and Balick’s (1993) great book, *Rainforest Remedies — One Hundred Healing Herbs of Belize*. But here’s the story my Amazonian shaman recounted, independently, as we stood in the Amazonian rainforest of Loreto, Peru: “Mr. Duke, this is the icoja vine, which has a secret use among some of the Amazonian Indians, like the Huitoto Indians. If the woman takes a tea of the trunk at the beginning of her period, and drinks it three times a day throughout her period, it will prevent conception. Further, if she does the same thing for 6 periods, she will be rendered permanently sterile.” So relatively unrelated Huitoto and Maya Indians, with unrelated languages, some approximate thousand miles apart, had evolved, perhaps empirically, pretty much the same sterility story about *Bauhinia*. True or false? I’m only reciting what I read or heard in the rainforest by the “great vine” (JAD).

**Common Names:**

Arbol Orquídea (Sp.; POR); Casco de Vaca (Brazil; RAI); Cow’s Foot (Eng.; Scn.; AH2; USN); Mororó (Brazil; MPB; MPG); Orchid Tree (Eng.; POR); Pata de Boi (Brazil; MPG; RAI); Pata de Vaca (Brazil; Ocn.; Por.; Sp.; AH2; MPB; MPG; RAI; USN); Unha de Anta

(Brazil; MPB); Unha de Boi (Brazil; MPB; MPG); Unha de Vaca (Brazil; MPB; MPG); Vegetable Insulin (Eng.; RAI).

**Activities:**

Anticoagulant (1; X15763387); Antidiabetic (1; X15165145; X15186500; X15501431); Antioxidant (1; RAI); Astringent (f; RAI); Depurative (f; RAI); Diuretic (f1; MPG; RAI); Hypocholesterolemic (1; MPG; RAI; X14709915); Hypoglycemic (f1; MPB; MPG; RAI); Hypotriglyceridemic (1; RAI; X14709915); Molluscicide (1; RAI); Tonic (f; RAI); Uterorelaxant (1; RAI); Vermifuge (f1; RAI).

**Indications:**

Bleeding (f; RAI); Cystitis (f; MPB); Dermatitis (f; MPB; RAI); Diabetes (f1; MPB; RAI; X14709915; X15165145; X15186500; X15501431); Diarrhea (f; RAI); Dysuria (f; MPB; RAI); Elephantiasis (f; RAI); High Cholesterol (1; MPG; RAI; X14709915); High Triglycerides (1; RAI; X14709915); Hyperglycemia (f1; MPB; MPG; RAI); Leprosy (f; RAI); Nephrosis (f1; RAI); Obesity (f; RAI); Oliguria (f; RAI); Polyuria (f; RAI); Snake Bite (f1; RAI; X15763387); Stones (f; RAI); Syphilis (f; RAI); VD (f; RAI); Worms (f1; RAI).

**Dosages:**

FNFF = ? 1 cup leaf tea 2–3×/day (RAI); 2 g leaf capsule/tablet 2–3×/day (RAI); 3 g/day for 56 days reportedly helps diabetes (MPG).

- Brazilians use as astringent, depurative, diuretic, and tonic, for CNS disorders, cystitis, diabetes, diarrhea, elephantiasis, hyperglycemia, intestinal worms, kidney stones, leprosy, obesity, polyuria, and stones (MPG; RAI).

**Downsides:**

May potentiate other hypoglycemic drugs; contraindicated in hypoglycemia (RAI). Should be avoided in treatment of *Tityus serrulatus* scorpion envenoming, it may enhance venom lethality (X15507364). As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**Extracts:**

Extract a potential source of natural inhibitors of serine-proteases involved in blood clotting disturbances induced by snake venoms (X15763387). Kaempferitrin shown to lower blood glucose (200 mg/kg at 1 h after treatment) in diabetic rats and stimulate glucose uptake percentile, hypoglycemic at (50, 100, and 200 mg/kg) (X15165145; X15501431). Extract may reduce glucose, triglycerides, total cholesterol, and HDL-cholesterol levels suggesting its use in the treatment of diabetes mellitus type II (X14709915).

**PARAGUAYAN BEGONIA (*Begonia cucullata* Willd.) ++**

**BEGONIACEAE**

**Common Names:**

Agrial (Par.; MPG); Begônia-do-Brejo (Brazil; Por.; MPG; USN); Flor de Nácar (Arg.; Sp.; MPG; USN); Paraguayan Begonia (Eng.; JAD). (Nscn).

**Activities:**

Analgesic (f; MPG); Antiinflammatory (f; MPG); Antimalarial (f; MPG); Diuretic (f; UPH); Febrifuge (f; MPG); Vulnerary (f; MPG).



**Indications:**

Diarrhea (f; MPG); Dysentery (f; MPG); Fever (f; MPG); Hiccups (f; MPG); Inflammation (f; MPG); Malaria (f; MPG); Oliguria (f; UPH); Pain (f; MPG); Pharyngosis (f; MPG); Sores (f; MPG); Sore Throat (f; MPG); Stomatosis (f; MPG); Thirst (f; MPG); Toothache (f; MPG); Warts (f; MPG); Wounds (f; MPG).

**Dosages:**

FNFF = ? I'd not be afraid to eat this myself, finding nothing bad (or good) about it in my limited resources.

- Guarani macerate the plant in water for fever, hiccups, and thirst (MPG).
- Paraguayans apply mashed root to toothache (MPG).
- Paraguayans apply juice on warts and moles (MPG).
- Paraguayans apply leaves on inflammations and wounds (MPG).
- Paraguayans use charred plant on sores in the mouth and throat (MPG).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

Most species are tart with oxalic acid.

## SACHA NÍSPERO (*Bellucia pentamera* Naudin) ++

### MELASTOMATACEAE

**Illustrations:**

fig 34 (DAV)

**Synonyms:**

*Bellucia axinantha* Triana; *B. costaricensis* Cogn.; fide (USN).

**Notes:**

Grenand et al. (1987) and Mors et al. (2000) entries below (as GMJ; MPB) apply to *B. grosularioides* (L.) Trina (possibly synonymous). Rasped stem used to dye gourds (SAR).

**Common Names:**

Araça de Anta (Brazil; Por.; GMJ; MPB); Asaki (Palikur; GMJ); Bois Mèle (Creole; Guy.; GMJ); Guayabilla (Peru; RAR); Mandapuça (Por.; GMJ); Maya (Bel.; BNA); Mésoupou (Creole; Guy.; GMJ); Níspero (Peru; SOU); Níspero de Monte (Peru; RAR); Pisilu (Wayapi; GMJ); Podo Poaka (Andoke; SAR); Sacha Níspero (Peru; Sp.; LOR; MDD). (Nscn).

**Activities:**

Anthelmintic (f; SAR).

**Indications:**

Furuncles (f; GMJ); Leukorrhea (f; MPB); Worms (f; SAR).

**Dosages:**

FNFF = ! Fruits edible.

- Andokes use the fresh fruits as an anthelmintic (SAR).

## COLOMBIAN BARBERRY (*Berberis rigidifolia* Kunth) + BERBERIDACEAE

**Synonyms:**

*Berberis globosa* Benth.

**Notes:**

One of more than 20 species called “uña de gato” in Latin America, this one, like most berberine-containing species, has medicinal potential. Gupta (1995), speaking of berberine-containing species rather than specifically *Berberis rigidifolia*, notes its reputation as diaphoretic, febrifuge, hemostat, purgative, and tonic. I have no data to suggest that this is any better or worse a medicinal containing berberine-type alkaloids than many others of this genus of some 450 species.

**Common Names:**

Arrasquillo (Ecu.; MPG); Casha (Ecu.; MPG); Chinia (Ecu.; MPG); Espino (Col.; MPG); Espino de Oro (Col.; MPG); Espuela (Ecu.; MPG); Quilache (Col.; MPG); Tachuelo (Col.; MPG); Uña de Gato (Col.; MPG). (Nscn).

**Activities:**

Cholagogue (f; MPG); Diaphoretic (f; MPG); Digestive (1; MPG); Febrifuge (f1; MPG); Hemostat (f; MPG); Hepatotonic (f; MPG); Hypotensive (1; MPG); Laxative (f; MPG); Purgative (f; MPG); Refrigerant (f; MPG); Tonic (f1; MPG); Vasodilator (1; MPG).

**Indications:**

Biliousness (1; MPG); Bleeding (f; MPG); Constipation (f; MPG); Dermatitis (f; MPG); Fever (f1; MPG); Gingivitis (f1; MPG); Hepatitis (f; MPG); High Blood Pressure (1; MPG); *Leishmania* (1; MPG); Malaria (f1; MPG); Metrorrhagia (f; MPG); Pharyngitis (f1; MPG); Pyorrhea (1; MPG); Sores (f; MPG); Sore Throat (1; MPG); Splenitis (f1; MPG); Uteritis (f; MPG).

**Dosages:**

FNFF = ! Fruits used to prepare “tortas.”

**BRAZILNUT (*Bertholletia excelsa* Bonpl.) ++**

## LECYTHIDACEAE

**Illustrations:**

fig 35 (DAV)

**Notes:**

There is little folklore (see f below) on medicinal applications of brazilnut, either the nut or other parts of the plant. But I have found that true with Native North Americans and major North American food plants. I'm guessing that when the early Native Americans talked to the early writers, they probably talked so much about the food virtues that they overshadowed any medicinal virtues. Further, if they ate adequately of these medicinal foods they suffered not the maladies that these super foods might cure. That said, the brazilnut is apparently the richest source of dietary selenium. Hence I scored many of the more important indications and activities (1), though finding no folklore (f), basing the (1) on the selenium content. Entries followed by FNF were so scored. Let me go out on a limb on this beautiful rainforest tree. I believe that if 200 µg supplemental selenium was good for one of these following indications, then 3 average brazilnuts (also containing 200 µg selenium) would be just as good or better and more liable (through synergies) to have the desired activity or help the desired indication rather than 200 µg pure selenium, out of its natural context and natural container, in this case the brazilnut. And I wouldn't worry about counting my brazilnuts, preferring to err on the side of overdosing, knowing that the body has evolved homeostatic mechanisms for keeping selenium within reasonable bounds. Remember, in nutritional supplements the selenium is usually alone, but almost always in foods, selenium co-occurs with several other nutrients your genes have homeostatically known for millions of years alone. Synergic and or additive relations have been proven for many of these natural phytochemicals. Yes, I, Jim Duke, would readily bet more on the natural food container of 200 µg selenium ahead of 200 µg pure supplemental selenium.

**Common Names:**

Almendra del Beni (Bol.; DLZ); Almendra de los Andes (Peru; EGG; SOU); Brazilnut (Eng.; Usa.; CR2; POR; USN); Brazil Nut (Eng.; Scn.; AH2; POR; USN); Brazilnut-Tree (Eng.; USN); Castaña (Peru; EGG); Castaña del Brasil (Peru; Sp.; EGG; POR; SOU; USN); Castanha do Brasil (Ocn.; Por.; AH2; POR; USN); Castanha-do-Pará (Por.; POR; USN); Castanheira (Brazil; Por.; POR; X15664458); Castanheira-do-Pará (Brazil; Por.; MPB; USN); Castaño de Pará (Sp.; POR; USN); Chuntaparun (Bol.; DLZ); Creamnut (Eng.; POR; USN);

Jofaaya (Ocaina; SOU); Maco (Chacobo; DLZ); Noce del Brasile (It.; POR); Noyer de Para (Fr.; POR; USN); Noyer du Brésil (Fr.; POR; USN); Nuez de Brasil (Peru; Sp.; EGG; USN); Nuez del Brasil (Sp.; POR; USN); Nuez del Monte (Bol.; DLZ); Nuez de Pará (Peru; EGG); Paranaßbaum (Ger.; POR; USN); Paranut (Eng.; Usa.; POR; USN); Tocari (Peru; RAR); Uin-toroti Poa (Matsigenka; EGG; SOU).

### Activities:

Allergenic (1; X12359011; X9208050; X9847444); Analgesic (1; FNF; WER); Antiaggregant (1; FNF); Anticancer (1; FNF; HAD); Anticancer, colon (1; FNF; HAD); Anticancer, lung (1; FNF; HAD); Anticancer, prostate (1; FNF; HAD); Antidote (mercury) (1; DAS; FNF); Anti-hypertensive (f; EGG); Antiinflammatory (f; EGG); Antioxidant (1; FNF; HAD); Cardioprotective (1; FNF; WER); Depurative (f; EGG); Hepatoprotective (1; FNF); Immunostimulant (1; FNF; WER); Insectifuge (f; DAW); Trypanocide (1; X15664458).

### Indications:

Acne (1; FNF; WER); Aging (1; FNF; HAD); Arthrosis (f; EGG); BPH (1; FNF; HAD); Cancer (1; FNF; HAD); Cancer, colon (1; FNF; HAD); Cancer, lung (1; FNF; HAD); Cancer, prostate (1; FNF; HAD); Cardiopathy (1; FNF; WER); Chagas (1; X15664458); Cirrhosis (1; FNF); Dandruff (1; FNF); Gastrosis (f; DAV; MPB); Hepatosis (f1; FNF; RAR; SAR; X15664458); High Blood Pressure (f; EGG); Immunodepression (1; FNF; WER); Inflammation (f; EGG); Malaria (f; EGG; X15664458); Myalgia (1; FNF; WER); Pain (1; FNF; WER); Rheumatism (f; EGG); Stomachache (f; DAV); Syndrome X (1; FNF; SYN); Thick Blood (1; FNF; WER).

### Dosages:

FNFF = !!! 3 average nuts a day will provide ~200 µg selenium, suggested to prevent colon, lung, and prostate cancer (JAD).

- Amazonians suggest bark tea to treat liver diseases (EGG; SAR).
- Brazilians suggest stem bark tea for malaria (X15664458).
- Brazilians use a fruit tea for gastralgia (MPB).
- Brazilians use the fruit juice for hepatitis (X15664458).

### Downsides:

Not covered (AHP; KOM; PHR). As with peanut and soybean, some people are dangerously allergic to brazilnut. Most of the abstracts on *Bertholletia* deal with allergenicity rather than medicinal potential. *Consumer Reports* is quite conservative in pointing out the hazards of selenium, saying 1,000 µg (a dose suggested by some naturopaths) or more per day can cause loss of fingernails and hair; very high doses can cause diarrhea, fatigue, nausea, and even nerve damage. But it certainly can't hurt to get adequate selenium from the diet ... "Two of the best dietary sources of selenium are low-fat nutritious foods — fish and grains" (Anon. 1997. Do you need more minerals? *Consumer Reports on Health* (November 1997):121,123–4). As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

### Extracts:

Extracts show significant *in vitro* trypanocidal activity for *Trypanosoma cruzi* (Chagas' disease) ED 90–100 = 500 µg/ml. The triterpene betulinic acid had ED75 at 500 µg/ml (X15664458). As our richest source of selenium, I think those who are not allergic to brazilnuts, or worried about heavy metals, might benefit from 3 average brazilnuts a day which should provide 210 µg selenium.

Selenium: analgesic 200 µg/day, anorectic, antiacne 200 µg/day, antiaggregant, anticancer 100–200 (–400) µg/man/day, anticirrhotic, anticoronary 200 µg/day, antidandruff, antidote (mercury), antikeshan, antileukotrienic, antimyalgic 200 µg/day, antiosteoarthritic, antioxi-

dant 100–200 (–400) µg/man/day, antiradicular 100–200 (–400) µg/man/day, anti-Syndrome X 100–200 (–400) µg/man/day, antiulcerogenic, cancer-preventive, depressant, fungicide, immunostimulant 100–200 (–400) µg/man/day, prostaglandin-sparer, RDA = 10–75 µg/day, PTD = 1 mg/day (FNF).

## SPANISH NEEDLES (*Bidens pilosa* L.) ++

### ASTERACEAE

#### Synonyms:

*Bidens leucantha* Willd.; *Coreopsis leucantha* L.; fide (MPG).

#### Common Names:

Achual (Mex.; AVP); Achual Blanco (Mex.; AVP); Aceitillo (Mex.; AVP; RAI); Adzrorkpil (Krepi; KAB); Aiguille (Haiti; AVP); Alfiler (Dor.; AVP; RAI); Amapola Silvestre (Col.; MPG); Amor Seco (Peru; Lor.; DAV; RAI); Arponcito (Pan.; MPG); Beggar's Tick (Eng.; RAI); Beggar Sticks (S. Afr.; KAB); Beggar-Ticks (Eng.; Ocn.; AH2; USN); Bidente Piloso (Sp.; USN); Bident Hérissé (Fr.; RAI; USN); Bident Poilu (Fr.; USN); Black Jack (Gold Coast; S. Afr.; KAB); Bur Marigold (Eng.; Ocn.; AH2); Cadillo (Peru; Lor.; RAI); Cadillo de Huerta (Col.; MPG); Cadillo Rocero (Ven.; MPG); Carrapicho (Brazil; MPB; RAI); Carrapicho-de-Agulha (Por.; USN); Carrapicho de Duas Pontas (Brazil; MPB); Chilca (Peru; Lor.; RAI); Chipaca (Col.; MPG); Chiririro (Peru; RAR); Clavelito del Monte (Dor.; AVP; RAI); Cobblers'-Pegs (Eng.; USN); Cuambri (Brazil; RAI; MPG); Cuambu (Brazil; MPB); Cuc Ao (Ic.; KAB); Dada (Sierra Leone; UPW); Dsetshi (Krobo; KAB); Duivelskerwel (Afrikaan; KAB); Dupply Needles (Ma.; JFM); Erva Picão (Brazil; RAI; RAR); Fura Capa (Brazil; MPB); Gilingui (Ivo.; UPW); Goambu (Brazil; MPB); Gynantwi (Twi; KAB); Hairy Beggar-Ticks (Eng.; USN); Hairy Herbe d'Aiguille (Fr.; RAI; USN); Herbe d'Aiguille (Fr.; USN); Herbe Z'aiguille (Guad.; Mart.; AVP); Herbe Z'aiguille Blanch Collant (Guad.; AVP); Huichinge (Ecu.; BEJ); Isha Sheta Rao (Peru; Lor); Jarongan (RAI); Jin Zhan Yin Pan (Pin.; DAA); Kanmul (Ma.; JFM); Kete-Kete (Nig.; UPW); Ketul (RAI); Kipkoleit (Nandi; KAB); Kuei Chen Ts'ao (China; KAB); Kurofidie (Ghana; UPW); Macela de Campo (Brazil; MPB); Manzanilla del Pais (Pr.; AVP); Margarita Aceitilla (Sp.; AVP); Margarita Silvestre (Pr.; AVP); Masequia (Col.; MPG); Mazote (Cr.; MPG); Michege (Kikuyu; KAB); Moño de dos Puntas (Brazil; MPG); Moonyane (Suto; KAB); Morisecon (Ma.; JFM); Mozoquelite (Sp.; AH2); Mozote (Sp.; RAI; USN); Mozotillo (Ma.; JFM); Mulito (Ma.; JFM); Muni (Aym.; Que.; DLZ); Muni Muni (Aym.; DLZ); Nanguadian (Upper Volta; UPW); Ñatiuna (Chiguano; DLZ); Niani (Lib.; UPW); Paconca (Peru; RAR); Pacunga (Peru; Lor.; RAI); Papunga (Col.; MPG); Paracunga (Peru; RAR); Pau Pau Pasir (RAI); Pecunga (Col.; MPG); Pegapega (Ma.; JFM); Persil Bâtard (Fr.; AVP); Phutium (Guj.; KAB); Picacho (Brazil; MPB); Picacho Negro (Brazil; MPB); Picão (Brazil; MPB); Picão do Campo (Brazil; MPB); Picão-Preto (Brazil; Por.; RAI; USN); Piolho de Padre (Brazil; MPB); Piquete Blanco (Ma.; JFM); Pirca (Peru; RAI; RAR); Pirco (Peru; Lor); Potidcho (Ma.; JFM); Ppirca (Peru; RAR; SOU); Puinca (Ven.; MPG); Qeqo (Callawaya; DLZ); Quay Cham Thao (Ic.; KAB); Railway Daisy (Ma.; JFM); Rathangi (Meru; KAB); Romerillo (Cuba; Dor.; Pr.; AVP; MPG; RAI); Romerillo Blanco (Cuba; Sp.; AVP); Rumpat Juala (Malaya; KAB); Sacha Papa (Peru; RAR); Saetilla (Bol.; DLZ); Saltillo (Dor.; AHL; RAI); Samara Kokadi (Guj.; KAB); Sanana (Bol.; DLZ); Saytilla (Tupiza; DLZ); Scented Beggar-Ticks (Eng.; Ocn.; AH2); Sharp a Needle (Ma.; JFM); Sharp a Nilly (Ma.; JFM); Shepherd's Needles (Eng.; AVP); Shilcu (Peru; RAR); Sillcan (Peru; SOU); Sillk'lwa (Bol.; Que.; DLZ; USN); Sirvulaca (Ma.; JFM); Sirvulada (Pan.; MPG); Spanish Needles (Eng.; Scn.;

AH2; CR2; USN); Spanish Nettle (Ma.; JFM); Sunila (Que.; DLZ); Té de Milpa (Pan.; MPG); Tubacktuback (Hoilo; KAB); Tu To Hoan (Ic.; KAB); Uqadolo (Zulu; KAB); Vini- llo (Bol.; DLZ); Waltekola (Sin.; KAB); Wevenaar (Afrikaan; KAB); Yema de Huevo (Dor.; AHL; RAI); Z'aiguille (Haiti; AVP; RAI); Z'aiguille Blanche (Ma.; JFM); Zéguie (Haiti; AVP); Zweizahn (Ger.; RAI; USN).

### Activities:

Analgesic (f1; RAI; UPW); Anthelmintic (f1; MPB; ZUL); Antiangiogenic (1; X15587935; X17559025); Anticancer (1; X16615823); Antidermatophytic (1; MPG); Antidiabetic (1; X15549660; X17101254; X17513748; ZUL); Antidote (f; UPW); Antiedemic (f; RAI); Antiemetic (f; MPG); Antiherpetic (1; AJC31:355); Antihyperglycemic (1; AJC31:355); Antihypertensive (1; X10216804; X11448541; X12426085; X15934016); Antiinflammatory (1; AJC31:355; RAI; X10437654; X16041399); Antilactagogue (f; MPB); Antimalarial (1; AJC31:355; X15182902; X15476304; X9254115); Antioxidant (1; X15234771; X15507368; X15516812; X16765500); Antiparasitic (1; MPB; WOI); Antiplasmodial (1; X15182902; X9254115); Antiprostaglan- din (1; RAD); Antiseptic (1; MPB; WOI; ZUL); Antispasmodic (f; WOI); Antitubercular (1; PR14:303); Antiulcer (1; AJC31:355; MPG); Antiviral (1; AJC31:355; RAI); Apoptotic (1; X17559025); Astringent (1; ZUL); Bactericide (1; AJC31:355; RAI; X11543964; X16483385; X9147258; ZUL); Bitter (f; MPB); Calcium-Antagonist (1; X15934016); Candidicide (1; RAI); Choleric (f; RAI); COX-2-Inhibitor (1; X16041399); Cyclooxygenase-Inhibitor (1; RAI); Cytotoxic (f1; MPB; X16615823); Diuretic (f; RAI; SOU); Emmenagogue (f; RAR; WOI); Expectorant (f; WOI); Febrifuge (f1; MPG; X16615823); Fungicide (1; RAI; ZUL); Gram(+)- icide (1; MPG; X9147258); Hemostat (f; MPG; ZUL); Hepatoprotective (f1; AJC31:355; RAI); Hypocholesterolemic (f; MPG); Hypoglycemic (f1; MPG; RAI; ZUL); Hypotensive (1; MPG; RAI; X10216804; X11448541; X14669244); Hypotriglyceridemic (f; RAI); Immunomodula- tor (1; RAI; X15864741); Immunosuppressive (1; AJC31:355; X10437654); iNOS-Inhibitor (1; X16041399); Lactagogue (f; RAI); Mycobactericide (1; PR14:303; RAI); Myorelaxant (1; RAI; X15934016); Nematicide (f; UPW); NF-kappaB-Inhibitor (1; X16041399); NO-Inhibi- tor (1; X16041399); Pectoral (f; AHL); PGE2-Inhibitor (1; X16041399); Phototoxic (1; ZUL); Protisticide (1; MPG; ZUL); Sedative (f; UPW); Sialogogue (f; MPB; RAI); Stimulant (f; ZUL); Thrombolytic (f; RAI); Tonic (f; ZUL); Tranquilizer (f; MPG; UPW); Uterotonic (1; RAI); Vasodilator (1; AJC31:355; X10216804; X14669244; X15934016); Vasorelaxant (1; X14669244; X15934016); Vulnerary (f; MPB).

### Indications:

Abscesses (f; RAI); Adenopathy (f; KAB; RAI; ZUL); Alcoholism (f; DAV); Alopecia (f; RAI); Angina (f; DAV; RAI); Anuria (f; RAI); Aphtha (f; DAV; RAI); Arthrosis (f1; RAI; ZUL); Asthma (f; WOI); *Bacillus* (1; RAI); Bacteria (f1; AJC31:355; MPG; RAI; X11543964; X16483385; X9147258; ZUL); Biliousness (f; MPG); Bleeding (f; MPG; RAI; ZUL); Blisters (f; RAI); Boils (f; RAI); Bronchosis (f; RAI; ZUL); Bugbites (f; RAI); Burns (f; RAI; UPW); Cancer (f1; RAI; WOI; X16615823); Cancer, prostate (f; RAI); *Candida* (f1; RAI); Cataracts (f; RAI); Catarrh (f; AHL); Childbirth (f; MPG); Chills (f; DAV); Colds (f; MPG; RAI); Colic (f; ZUL); Colitis (f; RAI; UPW); Conjunctivitis (f; RAI; UPW; ZUL); Constipation (f; ZUL); Coughs (f; RAI; WOI; ZUL); Cramps (f; WOI); Cystosis (f; RAI); Dermatophyte (1; MPG); Dermatitis (f1; JFM; ZUL); Diabetes (f1; AJC31:355; DAV; MPG; RAI; RAR; X15549660; X17101254; X17513748; ZUL); Diarrhea (f; BEJ; ZUL); Dropsy (f; DAV; SOU); Duodenitis (f; MPG); Dysentery (f; DAV; ZUL); Dyslactea (f; RAI); Dys- menorrhea (f; RAI; ZUL); Dyspepsia (f; MPG); Dysuria (f; JFM; RAI); Earache (f; MPG; RAI; UPW); Edema (f; RAI; RAR); Enteritis (f1; RAI; UPW; ZUL); Fever (f1; MPG; RAI; X16615823); Filaria (f; UPW); Fistula (f; WOI); Fit (f; UPW); Flu (f; RAI); Fungus (1; RAI; ZUL); Gas (f; RAI); Gastrosis (f; RAI; ZUL); Gout (f; RAI); Halitosis (f; MPG); Head- ache (f; DAV; RAI; UPW); Hemorrhoids (f; MPG; RAI; UPW); Hepatitis (f1; AJC31:355);

DAV; RAI); Hernia (f; UPW); Herpes (1; AJC31:355); High Blood Pressure (1; MPG; RAI; X10216804; X11448541; X12426085; X14669244; X15934016); High Cholesterol (f; MPG); High Triglyceride (f; RAI); Hyperglycemia (f1; AJC31:355; MPG; RAI; ZUL); Infection (f1; AJC31:355; BEJ; MPB; MPG; RAI; WOI; X11543964; X16483385; X9147258; ZUL); Infertility (f; ZUL); Inflammation (f1; AJC31:355; RAI; UPW; X10437654; X15587935; X16041399; ZUL); Insomnia (f; MPG; UPW); Itch (f; ZUL); Jaundice (f; MPB; RAI; UPW; ZUL); *Klebsiella* (1; RAI); Laryngitis (f; DAV; RAI); Leprosy (f; WOI); Leucorrhea (f; MPB); Leukemia (1; RAI); Malaria (f1; AJC31:355; RAI; X15182902; X15476304; X9254115; ZUL); *Mycobacterium* (1; PR14:303; RAI); Mycosis (f1; RAI; ZUL); Nausea (f; MPG); *Neisseria* (1; RAI); Nephrosis (f; MPG; RAI); Nervousness (f; MPG; UPW); Neurosis (f; RAI); Obesity (f; RAI); Oliguria (f; RAI); Ophthalmia (f; KAB; ZUL); Osteosis (f; MPG); Otitis (f; ZUL); Pain (f1; MPG; RAI; UPW); Pancreatosis (f; RAI); Parasites (f1; MPB; WOI); Parotitis (f; MPG); Pertussis (f; UPW); Pharyngosis (f; RAI); Pneumonia (f; RAI); Prickly Heat (f; JFM); Prostatosis (f; ZUL); *Pseudomonas* (1; RAI); Pulmonosis (f; RAI); Rashes (f; RAI); Respirosis (f; RAI); Rheumatism (f; ZUL); *Salmonella* (1; RAI); Sclerosis (f; RAI); Scurvy (f; RAI); Side Ache (f; ZUL); Smallpox (f; UPW); Snake Bite (f1; RAI; UPW; ZUL); Sores (f1; MPB; RAI; ZUL); Sore Throat (f; DAV; RAI); Spasms (f; WOI); *Staphylococcus* (1; RAI); Stomachache (f; RAI; ZUL); Stomatosis (f; RAI; SOU); Swelling (f; RAR); Syphilis (f; ZUL); Thrombosis (f; RAI); Thrush (f1; RAI); Tonsilosis (f; RAI); Toothache (f; MPB); Trematode (1; MPG); Tuberculosis (f1; PR14:303; RAI; ZUL); Ulcers (f1; AJC31:355; MPG); UTIs (f; RAI); Vaginosis (f; RAI); VD (f; RAI); Viruses (1; AJC31:355; RAI); Water Retention (f; DAV); Worms (f1; MPB; RAI; ZUL); Wounds (f1; MPB; MPG; RAI; ZUL); Yeast (f1; RAI; ZUL).

### Dosages:

FNFF = !! Young leaves cooked like spinach or added to soups (JFM; UPW).

- Amazonians take for angina, chills, diabetes, dysentery, dysmenorrhea, edema, headache, hepatitis, jaundice, laryngitis, malaria, oliguria, ophthalmia, parasites, sore throat, stomachache, stomatosis, toothache, worms, and wounds (RAI).
- Bahamians squeeze plant juice onto dermatoses, sores, and wounds, also using for cancer, fever, gas, itch, oliguria, rashes, and sores (JFM; RAI).
- Brazilians use for adenopathy, bleeding, breast engorgement, bugbites, cough, diabetes, diaper rash, dysentery, dyslactea, dysuria, fever, gonorrhoea, hemorrhoids, hepatitis, inflammation, jaundice, malaria, mycoses, oliguria, parasites, pharyngitis, pulmonosis, rheumatism, sclerosis, sores, tonsilosis, toothache, UTIs, and vaginosis (KAB; RAI).
- Colombians use to treat infections (X16483385).
- Congolese take for caries, childbirth, earache, fever, headache, hernia, intercostal pain, and ophthalmia (UPW).
- Dominicans use as analgesic, diuretic, emmenagogue, lactagogue, pectoral, and sialagogue (RAI).
- Haitians take for aphthosa (hoof and mouth), angina, catarrh, diabetes, dyslactea, mental ills, nervousness, shock, stomatosis, tonsilosis, and vomiting (RAI).
- Ivory Coastals take for dysentery, jaundice, myalgia, smallpox, and snake bite (UPW).
- Jamaicans take the decoction for worms (JFM).
- Mexicans take for blisters, blood clots, chest ailments, diabetes, fever, gastroenteritis, hemorrhoids, inflammation, nervousness, snake bite, and stomatosis (JFM; RAI).
- Nigerians take leaf sap or infusion for colitis and diarrhea (UPW).
- Panamanians take for cold, enterosis, headache, prostate tumors, and rheumatism (RAI).
- Peruvians take leaf tea, with or without lemon juice, for dropsy, hepatitis, and water retention (MPG), also using for abscesses, alopecia, angina, anuria, aphthosa (hoof and

mouth), childbirth, chills, conjunctivitis, cystitis, diabetes, dysentery, dysmenorrhea, edema, fever, fungal infection, headache, hemorrhage, hepatitis, inflammation, jaundice, laryngitis, nephrosis, neuroses, obesity, pain, parasites, rheumatism, sores, sore throat, stomatosis, tonsillitis, toothache, worms, and wounds (RAI).

- Zulu chew young shoots to treat rheumatism (KAB).

#### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed eight titles alluding to toxicity of this species.

#### Extracts:

Human malaria is endemic in the Brazilian Amazon, with over 610,000 new acute cases yearly (X11784919) and increasing, partly due to drug-resistant parasites, evidencing the need for new antimalarial drugs. Root extract active *in vitro* against *Plasmodium falciparum* correlated with the presence of polyacetylene and flavonoids (X15182902). Ethanol extracts of the whole plant, leaves, and roots, and the chloroform and butanol fractions (at 50 µg/ml) caused up to 90% inhibition of *Plasmodium falciparum* growth *in vitro* (X9254115). 1,2-dihydroxy-5(E)-tridecene-7,9,11-triynone antiangiogenic (2.5 µg/ml) and apoptotic (X17559025). Cytopylone inhibits CD4(+) T cell proliferation and prevents the development of diabetes in non-obese diabetic mice (X17101254; X17513748). Methanol leaf extract exerts antihypertensive effect in part by improving insulin sensitivity (X12426085). N-hexane extract exhibits strong anticancer activity, the methanol extract strongly antipyretic (X16615823). Water extract active against *Bacillus cereus* and *Escherichia coli*, ethanol extract active against *Staphylococcus aureus* (X16483385). Ethyl caffeate from the plant extract inhibited NF-kappaB, NO (IC<sub>50</sub> = 5.5 µg ml<sup>-1</sup>), iNOS, and PGE(2) production; notably its COX-2 inhibition was superior to that of celecoxib (X16041399). Leaf extract antihypertensive, vasodilatory, and vasorelaxant (25%–105% at 0.25–1.5 mg/ml, respectively) (X15934016). Extract exhibited significant antioxidant activity (IC<sub>50</sub> = 14–17 µg/ml) comparable to that of alpha-tocopherol (X15507368).

### LIFE PLANT (*Biophytum sensitivum* (L.) DC.) ++

#### OXALIDACEAE

#### Illustrations:

pl 177 (KAB)

#### Synonyms:

*Oxalis sensitiva* L. (basonym); fide (USN; WO2).

#### Common Names:

Alleluya (Fr.; KAB); Chua Me (Ic.; KAB); Damonghiya (Tag.; KAB); Dok Han (Ic.; KAB); Durumbihir (Mun.; KAB; WO2); Durumsing (Mun.; KAB); Durumtasag (Mun.; KAB); Gasnidikumba (Sin.; KAB); Hazoandro (Sakalave; KAB); Horamuni (Kan.; WO2); Huyahuya (Vis.; KAB); Inja Payung (Java; IHB); Jalapushpa (Sanskrit; KAB); Jalapushpam (Sanskrit; WO2); Jalapushpamu (Tam.; WO2); Jalupushpam (Kan.; WO2); Janapid (Mun.; KAB); Japidising (Mun.; KAB); Japidtasad (Mun.; KAB); Jhalai (Ben.; WO2); Jharera (Guj.; Mar.; KAB; WO2); Jhullapushpa (Sanskrit; KAB); Jvalatpushpa (Sanskrit; KAB); Ka Budi Ka Noke (Hausa; KAB); Kalapaän (Sunda; IHB); Kelimanganalitra (Betsileo; KAB); Kihorohorona (Hova; KAB); Ki Payang (Sunda; IHB); Krambilam (Java; IHB); Krichhaha (Sanskrit; KAB); Ladjiri (Mar.; KAB); Ladjou (Mar.; WO2); Laghuvrikshaka (Sanskrit; KAB); Lahana-



mulki (Mar.; KAB; WO2); Lajalu (Hindi; KAB; NAD; WO2); Lajjaluba (Kan.; WO2); Lajjaluka (Sanskrit; KAB; WO2); Lajri (Bom.; NAD); Lakshana (Hindi; KAB; WO2); La Me (Ic.; KAB); Life Plant (Eng.; Scn.; AH2; USN); Macahiya (Tag.; KAB); Mahihiin (Ilo.; KAB); Mai Yarāp (Thai; IHB); Maneldilanitra (Sakalave; KAB); Mata Gara Kafafunki (Hausa; KAB); Miorinkorona (Hova; KAB); Modimodia (Hova; KAB); Mukkuti (Mal.; Tam.; WO2); Pankipatra (Sanskrit; KAB); Pitapushpa (Sanskrit; KAB); Rufe Rumbre (Hausa; KAB); Sensitive (Fr.; KAB); Sibirput (Sumatra; IHB); Talang (Ic.; KAB); Thindavadi (Tam.; WO2); Tsihilavanandriananahary (Betsileo; KAB); Tsimpoafoha (Hova; KAB); Tsuku (Kano; KAB); Tsuwuku (Kano; KAB); Turu Laré (Java; IHB); Zarer (Guj.; Hindi; KAB).

### Activities:

Analgesic (f; EB24:246); Antiangiogenic (1; X17552364); Antiaphrodisiac (f; IHB); Anticancer (1; X17477767); Antiedemic (1; X10189957); Antiinflammatory (1; X10189957); Antioxidant (1; X17338281); Antiseptic (f1; WO2); Antisialagogue (f; WO2); Antitumor (1; X17477767); Astringent (f1; WO2); Bitter (f; KAB); Contraceptive (f; EB32:280); COX-I-Inhibitor (1; X17253252); Diuretic (f1; KAB; WO2); Expectorant (f; KAB); Febrifuge (f; EB32:304); Hypoglycemic (1; WO2; X11585694; X9741656); Insulinotropic (1; X11585694); Litholytic (f; WO2); Sterilant (f; WO3); Stimulant (f; KAB; WO2); Tonic (f; KAB; WO2); Vulnerary (f; WO2).

### Indications:

Abscesses (f; WO2); Asthma (f; WO2); Bilioussness (f; EB32:304; KAB); Bruises (f; WO2); Burns (f; EB24:246; WO2); Cancer (f1; JLH; WO2; X17477767); Collapse (f; EB24:246); Convulsions (f; EB24:246; WO2); Cramps (f; WO2); Dermatitis (f; WO3); Diabetes (f1; WO2; X11585694; X9741656); Edema (1; X10189957); Fever (f; EB32:304; KAB; WO2); Gastrosis (f; IHB); Gonorrhoea (f; KAB; NAD; WO2); Hyperglycemia (1; WO2; X11585694; X9741656); Infection (f1; WO2); Inflammation (1; X10189957); Insomnia (f; WO2); *Mycobacterium* (f; WO2); Pain (f; EB24:246); Phthisis (f; KAB; WO2); Pulmonosis (f; WOI; WO2); Spasms (f; EB24:246); Stomachache (f; EB32:304; IHB; WOI; WO2); Stones (f; KAB; WO2); Strangury (f; KAB); Swelling (1; X10189957); Thirst (f; EB32:304); Tuberculosis (f1; IHB; WO2); Tumors (f1; JLH; X17477767); VD (f; KAB; NAD; WO2); Wounds (f; KAB; WO2).

### Dosages:

FNFF = ! Leaves eaten in Indochina (FAC).

- Ayurvedics consider the bitter diuretic leaves useful in strangury (KAB).
- Filipinos use the leaf decoction as expectorant, the powdered seed as a vulnerary, applied with or without butter to abscesses, bruises, and wounds (IHB; WO2).
- Javanese use the leaf decoction in asthma, phthisis, and snake bite (KAB; WO2).
- Madagascans use the plant as stimulant and tonic (KAB; WO2).
- Nepalese use for the treatment of hyperglycemia (X11585694).
- Ternate natives take the ashes with lime juice for stomachache (IHB).

### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

### Extracts:

Intraperitoneal extract doses (50 mg/kg) significantly inhibited tumor-directed capillary formation induced by melanoma cells (X17552364). Extract was 100% toxic (0.5 mg/ml) to Dalton's lymphoma ascites (DLA) and Ehrlich ascites carcinoma (EAC) cells; at 500 µg/dose/animal it inhibited solid tumor development in mice induced with DLA cells and increased the lifespan (93.3%) of mice bearing EAC tumors (X17477767). Extract inhibited

lipid peroxidation *in vitro* at concentrations of 50, 95, and 20  $\mu\text{g ml}^{-1}$  (50% inhibition [IC<sub>50</sub>]), respectively, and also scavenged nitric oxide (IC<sub>50</sub> = 100  $\mu\text{g ml}^{-1}$ ) (X17338281). Amentoflavone, from methanolic extracts of roots and stems, shows COX-I inhibition *in vitro* (IC<sub>50</sub> = 12.4  $\mu\text{M}$ ) (X17253252).

**ANNATTO (*Bixa orellana* L.) ++**  
**BIXACEAE**



**Illustrations:**

p 32 (CR2); p 359 (L&W); p 47 (TRA)

**Synonyms:**

*Bixa acuminata* Poir.; *B. americana* Boj.; *B. odorata* Ruiz. & Pav. ex D. Don; *B. platycarpa* Ruiz. & Pav.; *B. purpurea* Sweet; *B. tinctoria* Salisb.; *B. upatensis* Ram. Goyena; *Orellana americana* Kuntze; *O. orellana* (L.) Kuntze; fide (EGG; POR).

**Notes:**

At the Amazon Center for Environmental Education and Research (ACEER) camps and gardens, our ACEER shaman, Antonio Montero Pisco, delights in showing people the local dye plants. He shows them what he calls “achiote,” what we sometimes call the “rouge plant” (*Bixa orellana*), the first natural food dye approved by the FDA, the “annatto.” Nearly a decade ago Antonio even surprised the ACEER Executive Director, Roger Mustalish, and his wife, Registered Holistic Nurse Sue Mustalish, with a new (for me) application for the achiote. Roger was suffering a corneal abrasion caused by debris from the Amazon during a swim. Roger used something like Gentiamycin after his swim, thinking it would help with bacteria, but he developed an allergic reaction causing swelling, tearing, and pain. Antonio’s treatment (dropping mucilage into Roger’s eye from the achiote leaf stalk, after soaking in sterile water) stung momentarily but then the pain stopped and the swelling began to subside. Roger had overcome the allergy and lubricated the eye sufficiently to function and permit his own healing process to remedy the injury. He needed to use the “juice” about every two hours or so for a day or two, but was able to function there in the Amazon rainforest without problem.

**Common Names:**

Acafrao (Brazil; Por.; AVP; ROE); Açafroa (Brazil; Por.; MPB; POR; USN); Açafroa do Brasil (Por.; POR); Açafoeira-da-Terra (Brazil; Por.; POR; USN); Acafrooeira da Terra (Brazil;

MPB); Achauete (Pi.; JTR); Achihuete (Que.; EGG); Achihuite (Col.; Sp.; POR); Achihuiti (Ma.; Sa.; JFM; SOU); Achiote (Arg.; Col.; Cr.; Cuba; Ecu.; Fr.; Guat.; Japan; Mex.; Peru; Pi.; Por.; Rus.; Sp.; AVP; KAB; JTR; POR; TRA; USN); Achiotec (Ma.; RAI); Achiote Caspi (Sp.; POR); Achiotillo (Mex.; KAB); Achiotl (Mex.; Nahuatl; Sp.; KAB; POR; RAR); Achit (Fr.; KAB); Achiwete (Bol.; DLZ); Achiwiti (Aym.; Que.; DLZ); Achote (Arg.; Col.; Cr.; Cuba; Ecu.; Fr.; Guat.; Mex.; Pan.; Peru; Pr.; Sa.; Sp.; KAB; JTR; LOR; MDD; POR; SOU; USN); Achote Amarillo (Sa.; SOU); Achote Blanco (Sa.; SOU); Achote Colorado (Sa.; SOU); Achter Orbanbum (Ger.; NAD); Achuete (Pi.; Tag.; KAB; POR); Achute (Tag.; KAB); Achwete (Tag.; POR); Acosi (Andoke; EGG); Acote (Sa.; RAR); Aisiri (Chontaquiro; EGG); Amato (Mex.; JTR); Amudadaram (Tam.; KAB); Ananaie (Fr.; KAB); Anate (Fr.; Pi.; Sa.; KAB; SOU); Anato (Por.; POR); Anato (Japan; POR); Anatto (Eng.; Ger.; Japan; POR); Anattosamen (Ger.; POR); Anattostrauch (Ger.; POR; USN); Anattostruijk (Dutch; EFS); Anatto Tree (Eng.; POR); Annaatto (Fin.; POR); Annato (Brazil; Eng.; Fr.; Por.; Rus.; Sp.; AVP; POR; USN); Annatobusken (Den.; POR); Annatto (Eng.; It.; AVP; POR; RAR; USN); Annatobuske (Swe.; POR); Annatto Plant (Eng.; Sp.; POR); Annattosamen (Ger.; POR); Annatto Tree (Eng.; POR); Anotto (It.; POR); Apijiri (Piro; EGG); Apisiri (Aym.; Chontaquiro.; DLZ; EGG; RAR; SOU); Apjiti (Aym.; Bol.; DLZ); Asuete (Tag.; POR); Arnato (Sp.; AVP); Arnatto (Eng.; Ger.; AVP; USN); Arnattu (Kan.; KAB); Arnato (Brazil; RAR); Atase (Shipibo; EGG; RAR; SOU); Atola (Pi.; KAB); Atole (Fr.; KAB; POR; USN); Atsuiti (Tag.; KAB); Att (Ma.; JFM); Atta (Bel.; L&W); Avam (Tam.; KAB); Awal (Ulwa; ULW); Azafran de la Tierra (Brazil; MPG); Bandor (Sa.; RAR); Bangarakayi (Kan.; KAB); Beni No Ki (Japan; RAI; TAN); Bicha (Ma.; JFM); Bichet (Fr.; Ma.; JFM; KAB); Bija (Col.; Cuba; Dor.; Mex.; Pr.; Sp.; Ven.; KAB; L&W; POR; USN); Bijol (Sp.; POR); Biksa (Rus.; POR); Biksa Orel'ina (Rus.; POR); Bik Sa Sok (Korea; POR); Bixa (Col.; Pan.; JTR; ROE); Bixo (Sa.; EGG; RAR); Biza (Ma.; JFM); Brorfo Agyama (Twi; KAB); Buah Prada (Malaya; EFS); Cacicuto (Ma.; Sa.; EGG; JFM; RAR); Caha (Sin.; KAB); Caitoco (Ma.; JFM); Caituco (Ma.; Ven.; JFM; L&W); Cartuco (Ma.; JFM); Chacuanguarica (Pr.; Sp.; POR); Cham Pou (Ic.; KAB); Châm' Puu (Khmer; POR); Châm' Puu Chrâluëk' (Khmer; POR); Chancahguarica (Ma.; JFM); Chancanguarico (Mex.; JTM); Changuarica (Ma.; Mex.; JFM; JLH); Chaya (Guat.; Ma.; Sp.; AVP; JFM; L&W); Chompuh Chralok (Cam.; JAB); Cochehue (Fr.; KAB); Color (Col.; Ma.; AVP; JFM); Colorau (Brazil; Por.; USN); Cuajachote (Ma.; Sal.; Sp.; AVP; JFM; L&W); Cucheb (Bel.; BNA); Cuxub (Ma.; JFM); Cuxul (Ma.; JFM); Dee Tane (Peru; Ticuna; EGG); Diêu Nhuôm (Ic.; Vn.; KAB; POR); Diteque (Sa.; EGG; RAR); Echuete (Tag.; POR); Ematabi (Ma.; JFM); Eroya (RAI); Esacacuya (Ma.; JFM); Galuga (Sudan; POR); Gapijru (Piro; EGG; RAR); Gowpurgee (Hindi; NAD); Guantera (Sa.; RAR); Gulbas (Oriya; DEP; KAB); Guliabha (Oriya; KAB); Gusewe (Garifuna; Hon.; MPG); Hong Mu (China; POR); Huantura (Jibaro; Ma.; Sa.; EGG; JFM; RAR; SOU); Ipak (Aguaruna; EGG; SOU); Ipiacu (Jivaro; EGG; RAR; SOU); Jabarabamam (Madras; KAB); Jabura (Tel.; KAB); Jafara (RAI); Jaffrachettu (Tel.; NAD); Jaffra Maram (Tam.; NAD); Jafravittulu Chettu (Tel.; DEP); Japhar (Bom.; KAB); Japhara (Ap.; Tam.; Tel.; SKJ; WOI); Japhara Chettu (Tam.; DEP); Japhoran (Oriya; KAB); Japhra Virai Maram (Tam.; DEP); Japhredu (Kan.; KAB); Japrero (Lambadi; KAB); Jarak Belanda (Malay; POR); Jarat (Assam; DEP; KAB); Jolandhar (Assam; KAB; NAD); Jophra Maram (Tam.; DEP); Kachapo (Candoshi; EGG; SOU); Kam Sêt (Thai; POR); Kappumankala (Kan.; NAD); Karachchada (Sanskrit; KAB); Kasujmba-Kelling (RAI); Katsa (Pan.; Sp.; AVP); Kesari (Bom.; Kan.; Mah.; Mar.; KAB; NAD); Kesri (Kon.; KAB); Kesumba (Indonesia; Malay; POR); Kesumba Kling (Indonesia; Malay; POR); Kesuri (Bom.; Mar.; KAB); Kh'am (Laos; POR); Kham Faet (Thai; POR); Kham Ngae (Thai; POR); Kham Ngo (Thai; POR); Kham Saet (Bangkok; Thai; POR); Kham Thai (Thai; POR; RAI); Kisafa (Sa.; EGG; RAR); Kisri (Bom.; Mar.; KAB); Kiwi (Ma.; JFM); Koesoewee (Dutch; Ma.; AVP; JFM); Koeswe (Ma.; JFM); Kongaram (Tam.; POR); Korangumunga (Mal.; NAD); Kouguombi (San.; DEP; KAB); Kungumam (Tam.; KAB); Kunyit Jawa (Malay; POR); Kup-

pamanaal (Mal.; KAB); Kuppa Mankala (Kan.; DEP); Kurannamanal (Mal.; KAB); Kurungu Mungil Varai Maram (Tam.; DEP); Kurungu Mungi Vittulu Chettu (Tel.; DEP); Ku Xub (Bel.; Maya; AAB; BNA; MAX); Kuxub (Ma.; JFM); K'u-Zub (Ma.; JFM); Lathwa (Hindi; POR); Latka (Ben.; POR); Latkan (Ben.; Hindi; DEP; SKJ); Latkana (Hindi; POR); Latkhan (Ben.; Hindi; KAB); Lipstick Bush (Eng.; AVP); Lipstick Tree (Eng.; AVP; SKJ; POR; USN); Lotokons (Oriya; KAB); Manjitti (Tam.; KAB); Mantoro (Amarakaeri; RAR); Masce (Conibo; Shipibo; EGG; RAR; SOU); Mase (Sa.; ROE); Mashú (Amahuaca; EGG); Mas'th (Bol.; Chacobo; DLZ); Maxe (Cashibo; EGG; RAR; SOU); Maxu (Amahuaca; EGG; RAR); Nyonyoonya (Ocaina; SOU); Onotillo (Ma.; Sp.; Ven.; AVP; JFM; L&W); Onoto (Col.; Ma.; Sa.; Sp.; Ven.; EFS; JFM; JTR; RAR; TRA); Oox (Ma.; JFM); Oriana (It.; AVP); Orlean (Ger.; AVP); Orleansamen (Ger.; POR); Orleansbaum (Ger.; POR); Orleansstrauch (Ger.; USN); Orlean Strauch (Ger.; AVP; EFS; POR; RAI); Orleantræ (Den.; POR); Orucu (Ma.; JFM); Orucu-Axiote (Ma.; RAI); Oshin Mashe (Shipibo/Conibo; EGG); Ox (Ma.; JFM); Pamaqua (Mex.; JLH); Parwah (Br. Guy.; AVP); Piatu (Ma.; JFM); Pomadnoe Derevo (Rus.; POR); Pototsi (Ashaninka; Campa; RAR; SOU); Potsote (Campa; SOU); Potsoti (Ashaninka; EGG); Powasi (Chittagong; DEP; KAB); Puchote (Campa; SOU); Puchoti (Antis; EGG; RAR; SOU); Pumacoa (Ma.; Mex.; JFM; JTR); Pumacua (Ma.; Mex.; Pr.; Sp.; AVP; JFM; POR); Qana (Arab.; AVP); Quia (Chiquitano; DLZ); Raktabija (Sanskrit; KAB); Raktapushpa (Sanskrit; KAB); Rangamala (Kan.; KAB; NAD); Rangmale (Kan.; WOI); Rangmali (Kan.; DEP); Rangmali-Hannu (Kan.; DEP); Reipom (Manipur; KAB); Rocou (Fr.; Guiana; Réunion; KAB; NAD; POR); Rocouyer (Fr.; POR); Rocoyer (Fr.; EFS); Roucou (Arab.; Dei.; Fr.; Guy.; Haiti; Réunion; Sur.; Trin.; Vi.; Wi.; AVP; KAB; L&W; POR; USN); Roucouyer (Fr.; EFS; POR; RAI; USN); Roucouyier (Haiti; AVP); Rucu (Arg.; Cocama; Dwi.; AVP; EGG; L&W; SOU); Sacha Achote (Sa.; SOU); Sahy (Hova; KAB); Sannajabbale (Kan.; KAB); Sappira (Tam.; POR); Sappiravirai (Tam.; KAB); Satii (Laos; POR); Sendri (Bom.; Mar.; KAB; WOI); Senduria (India; EFS; NAD); Shabke Pandeka Jhad (Dec.; NAD); Shalkepandu (Dec.; KAB); Shalkepandu-Kajhar (Dec.; DEP); Shambo (Que.; EGG; RAR); Shambre (Sa.; EGG; ROE; SOU); Shambu (Peru; Sp.; AVP; L&W; SOU); Shambu Huayo (Sa.; EGG; SOU); Shambu Quiro (Sa.; EGG; RAR; SOU); Shambu Shambu (Sa.; EGG; SOU); Shendri (Bom.; Mah.; Mar.; KAB; NAD; SKJ); Shiyak (Bel.; BNA); Shonapushpi (Sanskrit; KAB); Sindur (Nepal; POR); Sindure (Nepal; POR); Sinduri (Guj.; Hindi; Sanskrit; KAB; SKJ); Sindurpushpi (Sanskrit; KAB); SmrrfarvetrF (Den.; POR); Som Hou (Ic.; KAB); Som Phu (Ic.; KAB); Sômz Phuu (Laos; POR); Sotis (Vis.; POR); Sowasi (Chittagong; NAD); Sunomala (Sanskrit; KAB); Thideng (Burma; KAB); Thidin (Burma; DEP; KAB); Tintorea en la Bahia (Brazil; MPG); Tlaapalachiyotl (Mex.; JLH); Trivapushpi (Sanskrit; KAB); Tsoóti (Nomatsiguenga; EGG; RAR); Ucur Achioté (Sa.; SOU); Unane (RAI); Urcu (Sa.; EGG; SOU); Urcu Achioté (Sa.; EGG); Urucú (Arg.; Bol.; Brazil; Sp.; Par.; Por.; Uru.; AVP; DLZ; JLH; L&W; POR; ROE; USN); Urucú Bravo (Brazil; Por.; POR; USN); Urucú da Mata (Brazil; Por.; POR); Urucueiru (Ma.; JFM); Urucum (Brazil; Por.; MPG; POR; USN); Urcu Uva (Tupi; KAB; RAI); Urucuy Urcu (Brazil; EGG); Urugumanjal (Tam.; KAB); Uruguay (Guarana; KAB); Uruku (Guarani/Tupi; Par.; JLH; RAI); Ururu (Galibi; KAB); Uru-Uva (Brazil; MPG); Uxta (Ticuna; SOU); Vahinamalona (Antsianaka; KAB); Vatkana (Hindi; KAB); Vãrvibiksa (Estonia; POR); Vehimi (Yuracare; EGG; SOU); Vejima (Yuracare; DLZ); Vennaivirai (Tam.; KAB); Virpushpa (Sanskrit; KAB); Wantura (Aym.; Sa.; RAR; SOU); Wanturu (Aym.; EGG); Watkana (Ben.; Hindi; DEP; KAB; NAD); Woukou (Haiti; TRA); Xayan (Bel.; BNA); Xayau (Guat.; AVP); Xiemphung (Ic.; KAB); Yetsep (Amuesha; Yanesha; EGG; RAR); Yetsop (Amuesha; SOU); Yobsaani (Candoshi; SOU).

### Activities:

Aldose-Reductase-Inhibitor (1; RAI; X1814628); Alexiteric (f; KAB); Allergenic (1; RAI; X1994783); Antacid (1; RAI); Antidote (Cassava) (f; JFM; JTR; MPB); Antidote (Jatropha)

(f; JFM); Antiemetic (f; EGG; FT74:136; RAR; ROE); Antigenotoxic (1; X15841440); Anti-inflammatory (1; RAI); Antimutagenic (1; X15841440); Antiophidic (1; RAI); Antioxidant (1; RAI; X16963211); Antiprostaglandin (1; 60P); Antiradicular (1; RAI); Antisecretory (f; WO2); Antiseptic (f1; ROE; WO2; X12974400); Antispasmodic (f1; WO2); Antitumor (f1; JLH; TRA; WO2); Antitumor, CNS (1; X16277432); Antitumor, colon (1; X16277432); Antitumor, lung (1; X16277432); Antitumor, stomach (1; X16277432); Antitussive (1; RAI); Aphrodisiac (f; MPG; VOD); Aphrodisiac, female (f; 60P; DAD; JFM); Astringent (f; 60P; DEP; JFM; MPI); Bactericide (1; 60P; TRA; WO3; X12974400; X16963211); Candidicide (1; TRA); Cardiotoxic (f; EGG); Chemopreventive (1; X15781219); Cicatrizant (f; EGG); COX-1-Inhibitor (1; X16277432); COX-2-Inhibitor (1; X16277432); Depressant (1; TRA; WO2); Depurative (f1; EGG; KAB; RAI); Detergent (f; KAB); Digestive (f; BOW; RAI; RAR; WO2); Diuretic (f1; 60P; IED; JFM; MPG; RAI; ROE); Emmenagogue (f; JFM; MPB); Emollient (f; DAV; WO2); Expectorant (f1; BOW; DAV; EGG; RAI; ROE); Febrifuge (f1; MPI; RAI; WO2); Fungicide (f1; EGG; TRA; X17234373); Gastrotonic (f; EGG); Hemostat (f1; RAI; RAR; WO2); Hepatoprotective (1; RAI); Hepatotropic (f; ROE); Hyperglycemic (1; DAD; RAI; TRA; X1750113); Hypertensive (1; TRA); Hypoglycemic (1; 60P; AAB; MPG; RAI; TRA); Hypotensive (f1; 60P; EGG; MPG; RAI; WO2); Immunostimulant (1; TRA); Insecticide (f1; WO3); Insectifuge (f; 60P; EGG; WO3); Insulinogenic (f; MPG); Laxative (f1; RAI; WO2); Lens-Aldose-Reductase-Inhibitor (1; WO3); Myorelaxant (1; 60P; MPG; RAI); Parasiticide (1; DAD; RAI); Prostaglandin-Synthase-Inhibitor (1; MPG); Purgative (f; JFM; MPI; ROE); Radioprotective (1; RAI); Secretolytic (1; RAI); Sedative (f; EGG); Spasmogenic (1; WO2); Trichomonicide (1; TRA); Uterocontractant (1; MPG; TRA); Vermifuge (f; DAD); Vulnerary (1; RAI).

### Indications:

Abscesses (f; EGG; RAR); Acariasis (f; EGG); Acne (f; 60P); Allergies (f; MPG); Alopecia (f; DAD; ROE); Amygdalosis (f; ROE); Angina (f; EGG; RAR); Asthenia (f; ROE); Asthma (f; EGG; JFM; JTR; MPG; ROE); *Bacillus* (1; FT74:136); Bacteria (1; 60P; TRA; X12974400; X16963211); Biliousness (f; KAB); Bites (f; MPI); Bleeding (f1; RAI; WO2); Blisters (f; WO2); Bronchosis (f; EGG; RAI); Burns (f1; DAD; EGG; RAR; SOU; TRA; WO2); Cancer (f; JLH); Cancer, CNS (1; X16277432); Cancer, colon (1; X15781219; X16277432); Cancer, lung (1; X16277432); Cancer, mouth (f; BOW; DAD); Cancer, stomach (1; X16277432); *Candida* (1; FT74:136); Cardiopathy (f1; EGG; RAI); Cataracts (1; X1814628); Catarrh (f; MPB); Childbirth (f; BOW; IED); Colic (f; BOW; ROE); Condyloma (f; JLH); Conjunctivitis (f1; DAV; EGG; MPB; RAI); Coughs (f; EGG); Cystosis (f; RAI); Dermatitis (f; FT74:136; JFM; ROE); Diabetes (f1; JFM; ROE; WO2; X16277432); Diarrhea (f; EGG; IED; JFM; ULW); Dysentery (f; 60P; DEP; JFM; VOD; WO2); Dyspnea (f; JFM); Epilepsy (f; PCS; RAI; SOU; WO2); Epistaxis (f; ROE); Eruptions (f; JFM); Erysipelas (f; PCS; ROE); *Escherichia* (1; FT74:136; RAI); Fever (f; 60P; JFM; MPI; ULW; WO2); Flu (f; JFM; ROE); Fungus (1; FT74:136; MPG; X17234373); Gas (f; ROE); Gastrosis (f1; DAV; RAI); Glaucoma (1; X1814628); Gonorrhea (f1; JFM; MPI; TRA; X8583798); Gout (f; RAI); Headache (f; JFM; PCS; RAR; ROE; SOU; VOD); Hematochezia (f1; RAR; WO2); Hematemesis (f1; AAB; RAR; WO2); Hemorrhoids (f; EGG; JFM; ROE); Hepatosis (f; DAV; EGG; JFM); High Blood Pressure (1; 60P; AAB; WO2); High Blood Sugar (1; 60P); Hyperemesis (f; MPB); Hyperuricemia (f; RAI); Impotence (f; RAI; ROE; VOD); Infection (f1; AAB; VOD; WO2; X12974400); Inflammation (f; RAI; ROE); Itch (f; FT74:136); Jaundice (f; JFM; NAD; WO2); Labor (f; DAV); Leprosy (f; EGG; JFM; WO2); Malaria (f1; EGG; MPI; SOU; WO2; X11025165); Measles (f; JFM); Menorrhagia (f; ROE); *Micrococcus* (1; WO3); Mycosis (f; MPG); Nausea (f; EGG; JFM); Nephrosis (f; DAD; DEP; EGG; KAB; PCS; VOD); Ophthalmia (f; HAD; RAI); Pain (f; DAD); Parasites (f1; DAD); Pharyngitis (f; MPB; RAI; VOD); Pleurisy (f; JFM); Prostatitis (f1; FNF; RAI); Pulmonosis

(f; IED); Rashes (f; AAB); Respirosis (f; IED); Retinopathy (1; RAI); Ringworm (f; EGG); *Salmonella* (1; MPG; TRA); Scar (f; WO2); Snake Bite (f1; MPI; X10940590); Sores (f; JLH; WO2); Sore Throat (f1; FT74:136; JFM; RAI; SOU; VOD; WO2); *Staphylococcus* (1; FT74:136; RAI); Stings (f; MPB); Stomachache (f1; JFM; MPG; RAI); Stomatosis (f1; DAD; FT74:136; JFM; VOD); *Streptococcus* (1; FT74:136); Sunburn (f; VOD); Swelling (f; AAB); Thirst (f; KAB); Tonsilosis (f; DAV; EGG; ROE); Trauma (f; ROE); Tumors (f; JLH); Uterosis (f; JFM); Vaginitis (f; EGG; RAI); VD (f1; DAV; JFM; MPI; RAI; SKJ; X8583798); Vomiting (f; JFM); Worms (f; DAD); Wounds (f; JFM); Yeast (1; FT74:136; TRA).

### Dosages:

FNFF = !! For diuretic activity, boil 9 seed pods in 3 cups of water for 10 min, drink 1 cup before each meal (AAB); 10 g powdered seed/40 ml oil for topical pastes (TRA); 5–10 mg seed powder 2×/day (RAI); 3 leaves/0.5 liter water + red paste = female aphrodisiac (JFM); ½ cup leaf decoction 2–3×/day (RAI).

- Argentinians take for diarrhea, fever, and heart support (RAI).
- Asian Indians apply diuretic mucilage of pounded leaves for gonorrhea (WO2).
- Asian Indians suggest bark for delirium, fever, and malaria (NAD; WO2).
- Asian Indians use ethanolic root extract as antimalarial, antiseptic, CNS-depressant, febrifuge, and hypotensive (WO2).
- Asian Indians use the seed oil in leprosy (WO2).
- Asian Indians use the twigs in hepatitis (WO2).
- Brazilians use leaf decoction for conjunctivitis, constipation, gastrostis, heartburn, hyperemesis, nausea, and oliguria, the seeds for burns, and the plant for dyspepsia, dysuria, hepatitis, and stomachache (MPB; RAI).
- Cambodians use the leaves, perhaps as a head-wash with the infusion, for fever (IHB).
- Colombians use extracts as anti-venom and aphrodisiac (RAI).
- Costa Ricans use leaf infusion to prevent baldness (DAD).
- Cubans use aqueous root extract for 9 days for asthma, using the paste for burns, decocting 30 mg seeds/kilo of water as an antidote to HCN drinking 3 doses 3 hr apart (JTR).
- Cubans use as aphrodisiac (RAI).
- Guatemalans take for gonorrhea (RAI).
- Haitians apply the leaf to the head to alleviate headache (VOD).
- Haitians gargle with the leaf decoction for mouth and throat infections (VOD).
- Haitians have an aphrodisiac mix of approximately equal parts annatto, cacao, cinnamon, clove, ginger, nutmeg, and sugar (VOD).
- Haitians use the plant for fever and as insect repellent (RAI).
- Latinos apply boiled leaves as antiseptic to wounds (ROE), to forehead for headache (JFM).
- Latinos gargle leaf decoction for sore throat, the tea for dysentery, jaundice, and tonsillitis (DAD; EGG; JFM).
- Latinos suggest seeds as antidote to bitter cassava (HCN) and *Jatropha* (JFM).
- Mexicans suggest use for burns, constipation, dysentery, dyspepsia, dysuria, epilepsy, erysipelas, fever, gonorrhea, headache, impotence, inflammation, malaria, oliguria, sore throat, vaginitis, VD, and wounds (JTR; PCS; RAI).
- Peruvians boil 8–10 dry leaves in 1 liter water 10 min, taking 1 cup 3×/day for cystitis, dermatosis, high blood pressure, high cholesterol, hyperuricemia, inflammation, nephrosis, obesity, prostatitis, and vaginitis (RAI).
- Peruvians insert fresh leaf stalk in glass of water; the mucilage that forms is applied like eye drops in conjunctivitis (HAD).

- Peruvians suggest eating the fruit and seed or taking their tea for bronchitis, cough, epilepsy (juice of 12 fruits 2×/day for 5 days), sore throat, and other respiratory infections (EGG).
- Peruvians suggest the shoot decoction as antidysenteric, antiseptic, antivenereal, aphrodisiac, astringent, and febrifugal (DAV).
- Peruvians use the aqueous macerate topically for dermatitis and vaginitis (EGG), the plant for conjunctivitis, cystitis, dysentery, epilepsy, fever, high blood pressure, high cholesterol, impotence, infections, nephrosis, obesity, prostatitis, urogenitosis, and wounds (RAI).
- Piura use the astringent plant for dermatosis, fever, hepatitis, and impotence (RAI).
- Trinidadians use for dermatosis, diabetes, dysentery, flu, jaundice, nephrosis, and VD (RAI).

#### Downsides:

Not covered (AHP; PH2). None known (TRA). Ingesting the tea for diabetes mellitus may be contraindicated since trans-bixin is hyperglycemic. Seeds contain a toxic alkaloid (JFM). Toxicity, if real, is “low grade” especially in well-nourished experimental animals. Toxicity commences in dogs given 60 mg/kg trans-bixin (DAD). Seeds may provoke hepato- and pancreatoxicity in dogs (MPG). Adverse reactions rarely associated with annatto include urticaria, angio-edema, and severe hypotension, possibly severe anaphylaxis (X1994783). As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

#### Extracts:

Ethanollic seed extracts active against *Escherichia*, *Salmonella*, and *Staphylococcus*; aqueous and chloroform extracts hypoglycemic but alcohol extract hyperglycemic (TRA). Ethanollic extract active against *Bacillus* (X12974400). Extract active against *Cryptococcus neoformans* (MIC = 0.078 mg/ml) (X17234373). Root extracts hypotensive in rats at 50 mg/kg, slowing gastric secretions at 400 mg/kg. LD50 (seed) = 1,092 mg/kg orl rat; 700 mg/kg ipr rat (TRA). Hot water extracts potently inhibit aldose reductase (X1814628).

## ANNUAL PARA CRESS (*Blainvillea acmella* (L.) Philipson) + ASTERACEAE

#### Illustrations:

fig 209 (DAV); pl 532 (KAB)

#### Synonyms:

*Bidens acmella* (L.) Lam.; *Blainvillea latifolia* (L. f.) DC.; *B. rhomboidea* Cass.; *Coreopsis acmella* (L.) K. Krause; *Pyrethrum acmella* (L.) Medik.; *Spilanthes acmella* (L.) L.; *S. arrayana* Gardn.; *Verbesina acmella* L.; fide (POR; USN).

#### Notes:

Regrettably, McGuffin et al. (2000) recognize *Spilanthes acmella* (now *Blainvillea acmella* in USN) and *Spilanthes oleracea* (now *Acmella oleracea* in USN) as distinct species but assign them both the standardized name “spilanthes” and other common names “para cress” and “toothache plant.” Backed into a corner I am sticking with USN, which also recognizes *Acmella oppositifolia*. Yet nowhere do I find a key to the three species, now scattered through two genera.

*Acmella oleracea* = perennial para cress

*Acmella oppositifolia* = opposite-leaved para cress

*Blainvillea acmella* = annual para cress

Further complicating the situation, the Kew scientists (UPW) have split the old *Spilanthes acmella* auct (the catchall for the medicinal and ethnobotany writings) into *S. costata* Benth., *S. filicaulis* (Schum. & Thom.) C. D. Adams, and *S. uliginosa*, using *S. filicaulis* as their catchall, all three possibly having been used and named alike; “an American plant that has become pantropical” (UPW). None of these is covered in USN. The UPW entries below are from *S. filicaulis*.

Some people lump this with the former *Spilanthes oleracea*, but taxonomists have recently referred them to different genera (see also *Acmella oleracea*), which I am until further notice calling “perennial para cress.”

### Common Names:

Abeadaire (Fr.; KAB); Abecadaire (Fr.; KAB); Abecedária (Brazil; Por.; POR); Acmella (Réunion; KAB); Acmelle (Fr.; KAB); Agonoi (Vis.; KAB); Agrião-da-Ilha-de-França (Por.; POR); Agrião do Brasil (Por.; POR); Agrião do Pará (Brazil; Por.; KAB; POR); Agrido do Pará (Brazil; Por.; POR); Akarkara (Bom.; DEP; KAB); Akarkarha (Pun.; DEP; KAB); Akmalla (Sin.; KAB); Akmella (Rus.; KAB); Aku Kurra (India; DEP); Alc-melle (Fr.; KAB); Alphabet Plant (Eng.; FAC); Anamafana (Betsimisaraka; Sakalave; KAB); Anamalaho (Hova; KAB); Anamalahokely (Hova; KAB); Anamalahombazalao (Hova; KAB); Anamalahoye (Hova; KAB); Annual Para Cress (Eng.; POR); Australian Cress (Eng.; FAC); Barandu (Mun.; KAB); Berro de la Isla de Francia (Por.; POR); Bir-biri (Mun.; KAB); Blainvilleia Shirokolistnaia (Rus.; POR); Bocotupuri (Mun.; KAB); Canela-de-Urubú (Brazil; Por.; USN); Câm Cúc Áo (Vn.; POR); Cirbiri (Mun.; KAB); Cresson de l'île de France (Fr.; KAB); Cresson de Para (Fr.; POR); Cresson des Indes (Fr.; Malagasy; KAB); Cresson du Para (Malagasy; KAB); Cresson du Paraguay (Fr.; POR); Cresson Para (Fr. Guiana; KAB); Cúc Áo (Ic.; Vn.; KAB; POR); Cúc Áo Hoa Vàng (Vn.; POR); Dudmuritasad (Mun.; KAB); Erva-Palha (Brazil; Por.; USN); Gahé (Ivo.; UPW); Galang (Malaya; IHB); Gatang (Sumatra; IHB); Gletang (Java; TAN); Gutang (Malaya; KAB); Hagonog (Tag.; KAB); Hagonoi (Tag.; KAB); Hatukisari (Mun.; KAB); Henkala (Burma; DEP; KAB); Herbe de Malacca (Fr.; KAB); Hierba de Malaca (Por.; POR); Husarenknopflume (Ger.; POR); Iluloica (Igbo; Nig.; UPW); Jambú no Rio (Por.; POR); Jin Niu Kou (China; POR); Jotang (Sunda; IHB); Kimotodoha (Betsileo; KAB); Kuppa Manjal (Ker.; SKJ); Legetang (Java; IHB); Maratimogga (Ap.; Tel.; KAB; SKJ); Maratitige (Tel.; DEP; KAB); Marceia (Mun.; KAB); Mastruco (Brazil; KAB); Ngo Ao (Ic.; KAB); Nút Áo (Vn.; POR); Nyamengen (Ashanti; KAB); Nyame Nyen (Ghana; UPW); Oranda Sennichi (Japan; POR); Palunag (Pam.; KAB); Palunai (Pam.; KAB); Paniculated Spot Flowers (Eng.; POR); Para Cress (Eng.; IHB; POR); Para Cress Flower Head (Eng.; POR); Paraguay Cress (Eng.; POR); Parakresse (Ger.; POR); Parpehi (Hausa; Nig.; UPW); Picão-Grande (Brazil; Por.; USN); Pimenta Dagua (Por.; POR); Pimenteira do Para (Brazil; KAB); Pirazha (Assam; KAB; SKJ); Pokarumli (SKJ); Pokok Getang (Malaya; IHB); Pokormul (Pun.; KAB); Saraktro (Upper Volta; UPW); Sarunen (Java; IHB); Saruni Sapi (Java; IHB); Sekke (W. Cameroons; Yoruba; UPW); Sennichi Modoki (Japan; POR; TAN); Spot Flower (Eng.; POR).

### Activities:

Anesthetic (f1; LMP); Antidote (Poison) (f; UPW); Antiinflammatory (f; KAB); Carminative (f; X10437975); Depurative (f; LMP); Digestive (f; KAB; UPW); Diuretic (f1; KAB; WOI; X15120455); Emetic (f; UPW); Hemostat (f; UPW); Insecticide (f1; UPH; X10389272); Kali-uretic (1; X15120455); Larvicide (f1; UPH; X10389272; X10437975); Litholytic (f; UPW; WOI); Mosquitocide (f1; X10389272; X10437975); Natriuretic (1; X15120455); Panacea (f; IHB); Piscicide (f; IHB); Purgative (f; IHB; UPW; WOI); Sialogogue (f; DEP; KAB); Stimulant (f; DAW; DEP); Tonic (f; KAB; UPW); Vulnerary (f; UPW; WOI).



**Indications:**

Aphtha (f; LMP); Bladder Stones (f; IHB; UPW); Bleeding (f; UPW); Calculus (f; LMP); Cancer, prostate (f; JLH); Childbirth (f; KAB); Circumcision (f; UPW); Constipation (f; SKJ); Coughs (f; UPW); Cystosis (f; EFS); Diarrhea (f; SKJ); Dysentery (f; KAB; LMP; SKJ; UPW; WOI); Gas (f; X10437975); Gingivitis (f; DEP; UPW; WOI); Glossosis (f; DEP; UPW); Gout (f; EFS); Headache (f; DEP; LMP; UPW); Inflammation (f; KAB); Leukemia (f; LMP); Migraine (f; LMP); Oliguria (f1; WOI; X15120455); Pain (f1; LMP); Paralysis (f; DEP); Prostatitis (f; JLH); Psoriasis (f; KAB); Rheumatism (f; KAB); Scabies (f; KAB); Scurvy (f; WOI); Snake Bite (f; UPW); Sore Throat (f; KAB; WOI); Sprue (f; IHB); Stammering (f; WOI); Stomatitis (f; IHB; LMP); Stones (f; UPW; WOI); Toothache (f; DEP; IHB); Uterosis (f; UPW); Vaginosis (f; UPW); Wounds (f; UPW; WOI).

**Dosages:**

FNFF = ! Leaves and young shoots eaten cooked or in salads, or used as a side dish with rice (FAC; TAN).

- Brazilians boil the flowering tops for the lungs, specifically tuberculosis (DAV)
- Cameroonians apply pulped leaves with salt as a bolus in the nose for headache (UPW).
- Cameroonians eat the salted plant for dysentery (UPW).
- Gabonese use the plant for earache (UPW).
- Gabonese nursing mothers chew the leaves with maleguetta peppers and slip into the mouths of babes with cold or cough (UPW).
- Ivory Coastals apply tops for bleeding, as a vulnerary in circumcisions and wounds (UPW).
- Nigerians grind leaves with guinea grains in gin and apply to toothache, or chew and apply to headache (UPW).
- South Africans treat sore gums and lips with powdered leaves (UPW).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed six titles alluding to toxicity of this species.

**Extracts:**

Spilanthol and undeca-2E,7Z,9E-diynoic- and trienoic-acid-isobutylamides insecticidal, larvicidal, and mosquitocidal (X10389272). Larvicidal (LC50 = 61.43 ppm) (X10437975). Flower extract strongly diuretic (X15120455).

**TREE CELANDINE (*Bocconia frutescens* L.) +  
PAPAVERACEAE**

**Illustrations:**

fig 36 (IED); p 217 (LWW)

**Notes:**

I agree with Egg (1999) that this Central American and West Indian species has also been much confused with *Bocconia pearcei*. Very close to *Bocconia arborea*, which McGuffin et al. (2000) and Morton (1977, 1981) maintained as distinct. Morton notes that *Bocconia arborea* is not always distinguished from *B. frutescens*. All three are used as a yellowish dye. (EGG; JFM). I'm predicting, but not guaranteeing, that the yellow dye may contain some renewable chelerythrine or sanguinarine. Regrettably, McGuffin et al. (2000) have standardized the common name for *Bocconia arborea* as "Bocconia arborea."

**Common Names:**

Albaracín (Col.; AVP); Amanqhari (Que.; DLZ); Amaqari (Aym.; DLZ); Arbol Lillo (Arg.; AVP); Azafrán (Col.; AVP); Basura Prieta (Ma.; JFM); Bocconie Chélidoine (Haiti; AVP); Bocconie Chélidoine (Mart.; AVP); Bocconie Frutescente (Guad.; AVP); Bois Codine (Haiti; AVP; LWW); Bois Coq (Haiti; AVP); Bois Coq d'Inde (Haiti; AHL); Bois de Coq (Haiti; AHL); Brasil (Sal.; AVP); Calderón (Mex.; AVP); Camotilla (Guat.; Ma.; JFM; LWW); Celandine (Jam.; Pr.; AVP); Celedonia (Peru; Ven.; AVP; JLH); Celidueña (Ma.; JFM); Chicalote (Mex.; AVP); Cocojeguite (Mex.; AVP); Cocoxihuitl (Maya; JLH); Cuatlataya (Ma.; JFM); Curadar (Col.; AVP); Curarador (Ma.; JFM); Di Atú (Ma.; JFM); Gengibrillo (Dor.; AHL; LWW); Golondrina (Col.; Ma.; JFM; LWW); Gortdolobo (Mex.; JFM; LWW); Grande Chélidoine (Guad.; AVP); Greater Tree Celandine (Usa.; JLH); Guacamayo (Cr.; AVP; IED); Guachichile (Ma.; JFM); Haiuna (Peru; EGG); Hierba de Golondrino (Par.; ROE); Higuera del Diablo (Dor.; AHL); Higuera Infierno (Dor.; AHL); Janali (Peru; AVP); John Crow Bush (Bel.; Jam.; Pr.; AVP); Lechoso (Ven.; AVP); Llorá Sangre (Dor.; Mex.; AHL; LWW; ROE); Mata Chanda (Ma.; JFM); Mbiiyuitaa (Par.; AVP); Misuca (Ese'ija; DLZ); Moyju'ikaá (Par.; ROE); Palo Amargo (Cuba; AVP); Palo Amarillo (Bol.; Cr.; Cuba; Peru; AVP; DLZ; EGG; IED); Palo de Pán (Ma.; JFM); Palo de Pán Cimarrón (Cuba; Pr.; AVP; LWW); Palo de Tinta (Peru; EGG); Palo de Toro (Dor.; AHL; AVP); Panapen Cimarrón (Ma.; JFM); Pán Blanco (Dor.; AHL; AVP); Pán Blanco Cimarrón (Dor.; AHL); Pan Cimarrón (Ma.; Pr.; JFM; LWW); Parrotweed (Usa.; Jam.; Pr.; AVP); Pasilla (Ma.; Pr.; JFM; LWW; ROE); Pavot Rouge (Fr.; AVP); Plume-Poppy (Eng.; USN); Sancho Amargo (Arg.; Uru.; AVP); Sangre de Drago (Ven.; AVP; JFM); Sangre de Toro (Guat.; Ma.; Sal.; AVP; JFM; LWW); Saniculo (Ma.; JFM); Sarcilego (Ma.; JFM); Sarno (Ma.; JFM); Sarno Trompeto (Peru; ROE); Sarsiliego (Col.; AVP); Tabacillo (Cr.; AVP; LWW); Tiñe Canasta (Sal.; AVP); Tree Celandine (Eng.; USN); Trompeto (Col.; IED); Yabruma (Dor.; AVP); Yagrúmita (Cuba; AVP; JFM; RyM); Yagrúmo Macho (Dor.; AVP; LWW); Yanali (Peru; Que.; AVP; DAV; DLZ; EGG; SOU); Yaruano (Dor.; AVP). (Nscn).

**Activities:**

Abortifacient (f; DLZ); Analgesic (f1; ROE); Anesthetic (f1; IED; ROE); Angiotensin-Receptor-Blocker (1; X12357384); Antiarrhythmic (1; ROE); Antidepressant (1; X14989176); Antiinflammatory (1; X15324751); Antisecretory (1; X16174555); Antiseptic (f1; JFM; ROE); Antispasmodic (f; JFM); Antitumor (f1; JLH; ROE); Astringent (f; DLZ); Cardiotonic (f; JFM); Caustic (f; DAW); Clastogenic (1; X15324751); Emetic (f; DAW); Fungicide (f1; ROE); Hemostat (f; DLZ); Hypnotic (1; ROE); Hypotensive (f1; ROE; X12357384); Insectifuge (f; DAW); MAOI (1; X14989176); Parasiticide (f; AHL); Poison (f; DAW; DLZ); Purgative (f; AHL; DAW; ROE); Rubefacient (f; DAW); Sedative (f; DAW; ROE); Sialogogue (1; ROE); Tonic (f1; ROE); Vermifuge (f; AHL).

**Indications:**

Aposteme (f; DAW); Arrhythmia (1; ROE); Arthrosis (f; ROE); Bleeding (f; DLZ; ROE); Bronchosis (f; DAW; ROE); Callus (f; JFM); Cancer (f1; DAW; EGG; JLH; ROE); Cancer, abdomen (f; JLH); Chilblains (f; DAW; JFM); Childbirth (f; ROE); Collyrium (f; DAW); Conjunctivitis (f; JFM); Corns (f; JLH); Cramps (f; JFM); Depression (1; X14989176); Dermatitis (f; DAW; ROE); Diarrhea (f; DLZ); Dropsy (f; AHL; DAW); Dysentery (f; DLZ); Edema (f; JFM); Enterosis (f; JLH); Eruptions (f; DAW); Fungus (f1; DAW; ROE); Gastrosis (f; JFM); Hepatosis (f; JFM); High Blood Pressure (f1; ROE; X12357384); Infection (f1; DAW; JFM; ROE); Inflammation (1; X15324751); Insomnia (f; DAW; ROE); Itch (f; DAW; ROE); Jaundice (f; DAW; IED; JFM; ROE); *Leishmania* (f; ROE); Mange (f; AHL); Mucososis (f; DLZ); Mycosis (f; DAW); Ophthalmia (f; DAW); Pain (f1; IED; ROE); Parasites (f; AHL; DAW); Pediculosis (f; DAW); Rheumatism (f; ROE); Scabies (f; AHL); Sores (f; DAW; JFM);

ROE); Spasms (f; JFM); Splenosis (f; JFM); Swelling (f; ROE); Toothache (f; IED); Tumors (f1; DAW; JLH; ROE); VD (f; IED); Warts (f; DAW; EGG); Worms (f; AHL; DAW; ROE); Wounds (f; DAW).

### Dosages:

FNFF = ? Unconfirmed rumor has it that concoctions containing sanguinarine are being used against “Bagdad boils” (leishmaniasis).

- Andeans apply the iodine-colored resin (orange latex) to leishmaniasis stains (ROE).
- Andeans take decoction with “cola de caballo,” “pachalloqe,” and “turpay” for nephritis (ROE).
- Argentinians add 10–20 drops purgative latex to a cup of any beverage for worms (JFM).
- BriBri Indians of Costa Rica take root decoction for fever and hepatitis (JFM).
- Dominicans apply the latex in bronchosis, chronic ophthalmia, dermatosis, mange, warts, and wounds (AHL).
- Dominicans apply the leaves to wounds (AHL).
- Dominicans use the root infusion in dropsy (AHL).
- Dominicans use the seed oil against parasites (AHL).
- Haitians take the sap for stomach cramps and pains of cancer (JFM).
- Jamaicans rub leaves on the floor to repel insects (JFM).
- Mexicans apply the fruit oil to tumors (JLH).
- Peruvians apply the latex to cancers and warts (EGG; JLH).

### Downsides:

High doses of sap (*B. arborea*) affect the CNS, causing respiratory and circulatory collapse in animals (JFM). As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

### Extracts:

Sap reported to contain allocryptopine, bocconine, chelerythrine, protopine, and sanguinarine (FNF). Aqueous extract antisecretory (86.0%) at 300 mg/kg (X16174555).

## BOERHAVIA (*Boerhavia diffusa* L.) +

### NYCTAGINACEAE

### Illustrations:

p 116 (NPM)

### Synonyms:

*Boerhavia adscendens*; *B. caribaea* Jacq.; *B. coccinea*; *B. erecta* Gaertn.; *B. hirsuta* Willd.; *B. paniculata* L. C. Rich; *B. procumbens* Roxb.; *B. repens*; *B. viscosa*; fide (DEP; EGG; JFM; RAD).

### Notes:

As often happens, McGuffin et al. (2000) have used the generic name of a plant species to be its common name, and apply the same generic name *Boerhavia* as the standardized common name for two species: *Boerhavia diffusa* and *Boerhavia repens* (AH2).

### Common Names:

Agarra-Pinto (Brazil; Por.; USN); Amarra-Pinto (Brazil; Por.; USN); Ataki (Ap.; SKJ); Atika Mamida (Tel.; DEP; KAB); Attatamamidi (Tel.; MPI; NAD); Aule Sag (Nepal; NPM); Bab-bajibji (Hausa; KAB); Bashkhira (Urdu; KAB); Bécabar Bâtard (Réunion; KAB); Bejuco de

Purgacion (Wi.; KAB); Benikasumi (Japan; KAP); Beshakapore (Hindi; MPI; NAD); Bhauma (Sanskrit [1 of 35]; KAB); Bish Khapra (Hindi; Yunani; KAP); Biskhapra (RAI); Boerhavia (Eng.; Scn.; AH2); Celidônia (Brazil; Por.; USN); Chuchuriya (Tharu; NPM); Denispat (Iran; KAP); Devasapat (Iran; KAB); Dholi Saturdi (Guj.; DEP; KAB); Djambo (RAI); Erva Tostno (Brazil; JTR; RAI); Erva Toustao (RAI); Etiponia (RAI); Fowl's Lice (RAI); Gadapurena (Danuwar; NPM); Gadhaparna (Hindi; ADP); Gadhapurna (Hindi; ADP); Ganda'dar (RAI); Gandhapurna (Ben.; MPI; NAD; SKJ); Ghetuli (Bom.; Mah.; KAB; NAD; RAI; SKJ); Goda (Bihar; SKJ); Gonajali (Kan.; NAD); Hand Qoqa (Arab.; KAP); Herlee a Cochons (Fr.; KAP); Hierba de Cabro (Sp.; POR; USN); Hogweed (Eng.; NPM; RAI); Horse Purslane (Eng.; SKJ); Huang Xi Xin (China; POR; USN); Ipeca (Wi.; KAB); Ipecacuana Falsa (Peru; Sp.; EGG); Ipecacuanha de Cayenne (Fr. Guiana; USN); Ipeca Falso (Peru; EGG); It Sit (Pun.; MPI; NAD; SKJ); Jan Tops (Sin.; DEP); Kadiyirattam (Tam.; NAD); Karicharanai (Sri.; KAB); Katkatud (RAI); Kecoara (Mun.; KAB); Khapara (Bom.; DEP); Khapra (Mah.; NAD); Khar-kane (Chepang; NPM); Kohmhin Pak (Thai; IHB); Kommegida (Kan.; Kar.; KAB; SKJ); Laal Gaj Pumi (Nepal; POR); Laal Punamava (Nepal; POR); Lelbadri (Majhi; NPM); Liane Manger Cochon (Haiti; AHL); Mahenshi (RAI); Mamauri (RAI); Manger Cochon (Haiti; AHL); Mata Pavo (Cuba; JTR); Mookirattai (Tam.; POR); Moto Satodo (Guj.; NAD; SKJ); Mukarettl Kirei (Tam.; SKJ); Mukkarattai (Tam.; MPI; NAD); Mukkirattai (Tam.; KAP); Mukraate Kirei (Tam.; ADP); Mukuk Rattai (Tam.; DEP); Mukurattai (Tam.; KAB); Nakbel (Sin.; DEP; KAB); Ndandalida (RAI); Oulouni Niabo (RAI); Paanbalibis (RAI); Paanbalivis (Tag.; KAB); Paragon (Guad.; Mart.; AVP); Patagone (Fwi.; JTR); Patal-Jarh (RAI); Patharchata (Mp.; SKJ); Pegapinta (Peru; EGG); Pega-Pinto (Brazil; Por.; RAI; USN); Pegapollo (Dor.; AHL; AVP); Pegapollo Cimarron (Dor.; AHL); Pendejo de Perro (Cuba; JTR); Peta-sudupala (Sin.; KAB); Pigweed (Eng.; KAB; RAI); Pitasudu-Pala (RAI); Punarnaba (Ben.; KAP); Punarnava (Ayu.; Ben.; Ger.; Hindi; India; Mar.; Nepal; Sanskrit; Tel.; ADP; AH2; KAP; MPI; NAD; NPM; POR; USN); Punarnuwa (Cutch; DEP; KAB); Punarnwa (Nepal; KAP); Punarva (Nepal; POR); Punerva (RAI); Punnarnava (RAI); Purnoi (RAI); Putali (Magar; NPM); Rakta Punarnava (India; Sanskrit; OFF); Rakta Vasu (Mar.; KAB); Ratanaulo (Rai; NPM); Red Spiderling (Eng.; POR; USN); Saanupaate (Nepal; POR); Sabaka (Arab.; KAB); Samdelma (RAI); San (RAI); Sanadika (Kan.; MPI; NAD); Sant (Hindi; ADP; RAI; SKJ); Santh (RAI); Santhi (Hindi; SKJ); Santi (RAI); Sarana (Sin.; KAP); Satadi Thikedi (RAI); Satodi (RAI); Satoodimool (Bom.; NAD); Seveta Punarnaba (Ben.; DEP); Shothaghni (Sanskrit; NAD); Shweta (Sanskrit; MPI); Solidonia (Peru; EGG); Solidonio (Peru; DAV; EGG); Spreading Hogweed (Eng.; Ocn.; ADP; AH2; IHB; POR; RAI; USN); Survari (Hindi; SKJ); Svetapunarnaba (Ben.; KAB); Swetapoorna (Ben.; NAD); Talutama (Mal.; ADP); Tambadivasu (Mar.; ADP); Tambrat (Chepang; NPM); Tamilama (Mal.; NAD); Tamilana (Ker.; Mal.; SKJ); Tavilama (Mal.; ADP); Tellaaku (RAI); Thazhuthama (Mal.; KAB; RAI); Thikri (Hindi; KAB; NAD; RAI); Thikri Kajhar (Dec.; DEP; KAB); Tostón (Cuba; Dor.; Pr.; AHL; AVP); Touri-Touri (RAI); Tshrana (RAI); Vakhakhaparo (Guj.; ADP; MPI); Vakha Khap-aro (Guj.; NAD); Valériane (Guad.; Mart.; AVP); Valériane Patagonelle (Fwi.; KAB); Varshabhu (Sanskrit; SKJ); Vasu (Mar.; DEP; NAD); Visha Kharparo (Sanskrit; DEP); Wallakah (Kharan; KAB); Wasao (Nasirabad; KAB); Yerba de Perro (Pr.; JTR); Yerba de Puerco (Pr.; AVP).

### Activities:

Abortifacient (f; ADP; RAI); ACE-Inhibitor (1; RAI); Adaptogenic (f; RAI); Alexiteric (f; KAB; SKJ); Amebicide (f1; RAI); Analgesic (f1; RAI; WO3); Anthelmintic (f1; DEP; KAP; RAI); Antibilious (f; DAV); Anticancer (1; X15266960; X15670614); Anticancer, skin (1; X15670614); Anticancer, lung (1; X15670614); Anticonvulsant (f1; RAI; WO2); Antidiabetic (1; X15036478; X15511002; X15671692); Antidiuretic (f1; RAI); Antiedemic (f1; KAP; MPI; WO2); Antifibrinolytic (1; RAI; WO3); Antihyperlipidemic (1; X15671692); Antiinflammatory

(f1; RAI; WO2; WO3); Antimelanomic (1; X15670614); Antimetastatic (1; X15670614); Antioxidant (1; X15587591); Antiperoxidant (1; X15587591); Antiproliferant (1; RAI; X15670614); Antiseptic (1; RAI; X16281821); Antispasmodic (f1; AHL; RAI; X16254824; X16792408); Antitumor (1; X15266960); Antiviral (f1; RAI; WO2; X3094284); Aphrodisiac (f; RAI); Bactericide (f1; RAI; WO2); Calcium-Antagonist (1; RAI; X1934177); Cardiodepressant (1; RAI); Cardiotoxic (f1; KAP; MPI; WO2); Carminative (f; NPM); Chemopreventive (1; X15266960); Cholagogue (f; RAI); Choleric (f1; RAI; X2056758); Contraceptive (f; ADP); Cortisololytic (1; X15587591); Depurative (f1; AHL; RAI); Detoxicant (f1; RAI); Diaphoretic (f; MPI); Diuretic (f1; DAV; EGG; KAP; NAD; RAI); Emetic (f; EGG; NAD; RAI); Emmenagogue (f; RAI); Expectorant (f; KAP; RAI; WO2); Febrifuge (f; KAP; RAI); Fungicide (1; X15847339; X16281821); Hematinic (1; WO2); Hemostat (f1; JTR; RAI); Hepatoprotective (f1; RAI; WO3; X2056758; X9147255); Hepatotonic (f1; RAI); Hyperglycemic (1; X15671692); Hypertensive (1; KAP; NAD); Hypoglycemic (1; X15587591); Hypotensive (f1; RAI); Hypouricemic (1; WO2); Immunomodulatory (1; RAI); Immunosuppressant (1; X15683850); Lactagogue (f1; DEP; RAI); Laxative (f1; RAI); MMP-2-Inhibitor (1; X15670614); MMP-9-Inhibitor (1; X15670614); Myodepressant (1; RAI); Negative-Chronotropic (1; WO2); Ophthalmic (f; RAI); Orexigenic (f; ADP; RAI); Parasiticide (f; RAI); Purgative (f; KAP); Stimulant (f; JFM); Stomachic (f; NPM; RAI); Sudorific (f; JFM); Tonic (f; JFM; RAI); Vermifuge (f1; JFM; RAI).

### Indications:

Abscesses (f; DEP; RAI); Albuminuria (f; AHL; RAI); Alcoholism (f; NAD); Amebiasis (f1; RAI); Amenorrhea (f; RAI); Anasarca (f; KAP; SKJ); Anemia (f; KAP; RAI; SKJ); Anorexia (f; RAI); Arthrosis (f1; KAP; MPI; RAI); Ascites (f1; NAD; RAI; WO2); Asthma (f; AHL; KAP; RAI); *Bacillus* (1; RAI); Backache (f; NPM); Bacteria (f1; RAI); Beri Beri (f; RAI); Bilioussness (f; NAD; NPM); Bleeding (f1; ADP; JFM; RAI); Bleorrhagia (f; RAI); Blepharosis (f; NAD); Boils (f; ADP; RAI); Bright's Disease (f; KAB); Bronchosis (f; DEP); Calculi (f; RAI); Cancer (f1; ADP; KAB; RAI; X15266960); Cancer, abdomen (f; ADP; RAI; SKJ); Cancer, intestine (f1; WO2); Cancer, skin (f1; RAI; X15266960); Cardiopathy (f; RAI; SKJ); Cataracts (f; RAI); Childbirth (f; ADP; RAI; WO2); Cholecoecystosis (f; DAV; EGG); Cholera (f; RAI); Cirrhosis (f1; NAD; WO2); Colic (f; NAD); Constipation (f; KAP; RAI); Convulsions (f1; RAI); Coughs (f; NAD; RAI); Cramps (f1; X16254824); Cystosis (f; RAI); Debility (f; DEP; RAI); Dermatophyte (1; X15847339); Dermatitis (f; ADP); Diabetes (1; X15671692); Diarrhea (f; AHL); Dropsy (f; ADP; AHL; RAI; SKJ); Dysentery (f; NAD); Dysmenorrhea (f; RAI); Dyspepsia (f; KAB; RAI); Dyspnea (f; NAD); Dysuria (f; NPM; RAI); Eczema (f; ADP); Edema (f1; RAI; WO2); Enterosis (f; RAI; WO2; X16792408); Epilepsy (f; AHL); Erysipelas (f; AHL; DAW; RAI); Fever (f; NPM; RAI); Fracture (f; JFM); Fungus (1; X15847339; X16281821); Gallstones (f; RAI); Gas (f; NPM; RAI); Gastrosis (f; NPM; X16792408); Gonorrhoea (f1; ADP; RAI; SKJ); Gout (f1; NAD; WO2); Guinea Worm (f; RAI; SKJ); Headache (f; NPM); Hemorrhage (f; RAI); Hemorrhoids (f; ADP; RAI); Hepatosis (f1; DAV; EGG; RAI); High Blood Pressure (f1; RAI); Hives (f; RAI); Hysteria (f; AHL); Infection (f1; RAI; X15847339); Inflammation (f1; KAP; RAI; WO2); Itch (f; ADP; KAB); Jaundice (f; ADP; AHL; NPM; RAI); Keratitis (f; WO3); Kidney Stones (f; NAD); Leprosy (f; NAD); Leukorrhoea (f; NPM); Lumbago (f; RAI; SKJ); Malaria (f; AHL); Melanoma (1; X15670614); Metastasis (1; X15670614); Myalgia (f; ADP; WO2); Mycosis (1; X15847339; X16281821); Nephrosis (f1; RAI; WO3); Neuralgia (f; JFM); Neurosis (f; AHL); Nyctalopia (f; KAP); Obesity (1; X15671692); Oliguria (f1; ADP; AHL); Ophthalmia (f; ADP; RAI; WO2); Pain (f1; RAI; WO2; WO3); Paralysis (f; JFM); Parasites (f; RAI); Peritonitis (f1; NAD; WO2); Phthisis (f; NAD); *Pseudomonas* (1; RAI); Rheumatism (f; ADP; RAI); *Salmonella* (1; RAI); Scabies (f; KAB; SKJ); Snake Bite (f; KAB; KAP; RAI; SKJ); Spasms (f1; AHL; X16254824; X16792408); Splenosis (f; KAB); *Staphylococcus* (1; RAI); Sterility (f; RAI); Stones (f; NAD; RAI); Stress (1; RAI); Swelling (f; DEP); Urethritis (f; NAD; NPM);

Urticaria (f; RAI); Uterosis (f; JFM); VD (f; RAI); Viruses (1; RAI; X3094284); Weakness (f; RAI); Worms (f; NAD); Yaws (f RAI).

### Dosages:

FNFF = ! Tender leaves and shoots cooked as vegetable, even roots eaten in curries and soups; roots and seeds added to cereals and pancakes (NPM; WO2). Not a food (JAD). 1 cup root decoction 1–3×/day (RAI); 2 ml root tincture 1–3×/day (RAI); 1 cup whole herb decoction 1×/day or 1–2 ml tincture (4:1) 2×/day as a liver tonic (RAI); 500–200 mg capsules/tablets 1–3×/day (RAI).

- Ayurvedic use the astringent red variety in anemia, biliousness, blood impurities, inflammation, and leukorrhea (KAB).
- Ayurvedic use the dark variety in anemia, asthma, cardiopathy, and inflammation (KAB).
- Ayurvedic use the leaves in cancer, dyspepsia, enteralgia, and splenomegaly (KAB).
- Ayurvedic use the roots as diuretic, laxative, stomachic, and emmenagogue, for anemia, dropsy, gonorrhoea, internal inflammation, jaundice, menstrual problems, and liver, gall-bladder, and kidney disorders (RAI).
- Brazilians consider it cholagogue, diuretic, hepatoprotective, and hepatotonic, and use for albuminuria, beri-beri, blennorrhagia, calculi, cholecystitis, congestion, cystitis, dysuria, edema, gallbladder, gallstones, gonorrhoea, guinea worms, hepatitis, high blood pressure, hydrophy, hysteria, jaundice, kidney disorders, kidney stones, nephrosis, nephritis, oliguria, sclerosis, snake bite, splenosis, stones, urinary disorders, and urinary retention (JTR; RAI).
- Brazilians use the root for albuminuria, ascites, cystitis, jaundice, liver disorders, nephritis, renal and urinary disorders, and urinary retention (RAI).
- Dominicans use for albuminuria, asthma, diarrhea, dropsy, epilepsy, erysipelas, hysteria, jaundice, malaria, neuroses, oliguria, and spasms (AHL).
- Ghanaians use the root for yaws and as a poultice on guinea worms (RAI).
- Guatemalans use for erysipelas and guinea worms (RAI).
- Guineans use the plant for difficult childbirth (RAI).
- Haitians view leaf and root as antispasmodic, stimulant, sudorific, tonic, and vermifuge, giving 0.5–1 g powdered root in honey or orange syrup, for facial neuralgia and paralysis, poulticing crushed root with cornmeal on fractures (JFM).
- In India considered as antiinflammatory, emetic, hepatoprotective, lactagogue, and stomachic, used for calculi, debility, edema, hemorrhoids, internal inflammation, rheumatism, and weakness (RAI).
- In India the leaves are used for abdominal pain, cataracts, dyspepsia, enlarged spleen, jaundice, liver disease, rheumatism, and UTIs, also as food; the cooked leaves for jaundice; leaf juice used for cataracts, ophthalmia, and as antivenom for snake bite (RAI).
- In India the plant is used as a galactagogue (RAI).
- In India the root is considered anthelmintic, a blood purifier, diuretic, expectorant, and laxative, used for abdominal cancer and pain, anemia, asthma, boils, cardiopathy, colic, cough, dropsy, fever, gonorrhoea, guinea worms, hemorrhage, jaundice, kidney disease, snake bite, sores, and to hasten delivery; lukewarm root paste applied to those with cholera symptoms (RAI).
- Iranians consider it an appetite stimulant and tonic, using for flatulence, gonorrhoea, joint pain, lumbago, and nephritis (RAI).
- Iranians consider the root diuretic, emetic (high doses), and expectorant, using for edema, jaundice, and urticaria (RAI).
- Iranians consider the seed expectorant and use as a tonic for flatulence, lumbago, and muscle pain (RAI).
- Iranians use the leaf as an appetite stimulant and for joint pain (RAI).

- Nepalese apply plant juice to backache and wounds (NPM).
- Nepalese paste plant on forehead for headache (NPM).
- Nepalese use for asthma, biliousness, blood disorders, dysuria, and leukorrhea (NPM).
- Nigerians consider the leaf antiasthmatic, anticonvulsant, emetic, and expectorant (RAI).
- Nigerians consider the root emetic and expectorant, and use for asthma, convulsions, and to treat epilepsy (RAI).
- Nigerians use the petiole for abscesses and boils (RAI).
- Nigerians use the plant as a febrifuge and laxative for children and to treat guinea worms (RAI).
- Papua New Guinea natives use the root to induce sterility in women (RAI).
- West Africans use the plant to regulate menstruation (RAI).
- West Africans use the leaf as abortifacient (RAI).
- West Africans use the root to treat guinea worms and as a male aphrodisiac (RAI).
- West Bengali eat leaves as appetite stimulant (ADP).
- Yunani consider the leaves alexiteric and orexigenic, using for myalgia and ophthalmia (KAB).
- Yunani consider the seeds carminative, expectorant, and tonic, using for childbirth, lumbago, myalgia, scabies, and stings (KAB).

#### Downsides:

Consult with practitioner before taking with cardiodepressant or hypotensive drugs or barbiturates (RAI). Contraindicated in heart problems such as low blood pressure and heart failure; should not be used with medications for lowering blood pressure or heart depressants; myocardial depressant and hypotensive properties (RAI). May interfere with prescription diuretics; may potentiate alpha-adrenergic and cardiac depressant medications, and ACE-inhibitor medications for high blood pressure (RAI). May decrease effect of barbiturates (RAI). As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.

#### Extracts:

Apparently safe; LD50 root and leaf extracts >5,000 mg/kg orl mus (RAI). Low dosages (10–300 mg/kg) produced strong diuretic effects, while higher dosages (>300 mg/kg) produced the opposite effect (RAI). Root extract can increase urine output up to 100% in a 24-hr period at dosages as low as 10 mg/kg (RAI). Methanolic root extract spasmolytic in guinea pig ileum (X16792408). Ethyl acetate root extract antifungal (1,000 µg/ml) for *Microsporium gypseum* (78.83%), *M. fulvum* (62.33%), and *M. canis* (42.30%) (X16281821). Eupalitin-3-O-beta-D-galactopyranoside, isolated from leaf extract, immunosuppressive (X15683850). Administration of leaf extract (200 mg/kg/4 weeks) in diabetic rats resulted in significant reduction in serum and tissue cholesterol, free fatty acids, phospholipids, and triglycerides, and was more effective than glibenclamide (X15036478; X15671692; X15511002). Aqueous methanol (3:7) extract (0.5 mg/dose) reduced metastases formation of melanoma cells by 95%, and by 87% in lung metastases formation (X15670614). Topical application reduced tumor incidence in induced skin papillomagenesis in male Swiss albino mice (X15266960). Aqueous root extract (2 ml/kg) has more hepatoprotective activity than powdered form (X9147255).

### STRONG BACK (*Borreria succulenta* Jacq.) +

#### BORAGINACEAE

#### Illustrations:

p 148 (AUS)

**Notes:**

Austin (2004) uses the name “strongback” for *Bourreria succulenta*, while Morton (1977, 1981) uses it for *B. ovata*. Austin implies that the uses Morton gives for *B. ovata* are also for *B. succulenta* (AUS; JFM). Morton’s entries as JFM may apply as well to *B. ovata*, for those who recognize two species in this “strongback” area. In Belize, “strong back” usually applies to a *Desmodium*, with similar aphrodisiac overtones and overtures.

**Common Names:**

Acomat Côtelette (Guad.; AUS); Ateje de Costa (Cuba; Sp.; JTR; USN); Bambora (Wi.; USN); Bodywood (Eng.; USN); Bois Caprit Bâtard (Guad.; AUS); Bon Bon Rouge (Fwi.; AUS); Café Marron (Haiti; Sp.; AUS; USN); Cateicito (Cuba; JTR); Cerecillo (Pr.; AUS); Cherry (Eng.; USN); Chink (Eng.; USN); Chinkswood (Antigua; AUS); Cotlette (Dom.; AUS); Curaboca (Cuba; AUS; JTR); Currant-Tree (Eng.; USN); Cutlass (Grenadines; AUS); Doncella (Pr.; AUS); Fruta de Catey (Sp.; USN); Frutita de Catey (Cuba; JTR); Goeanna (Dwi.; AUS); Hall Bark (Wi.; AUS); Madame Jeanne (Haiti; AUS); Mapoux Gris (Haiti; AUS); Palo Bobo (Dor.; AUS); Palo de Vaca (Pr.; JTR); Pigeon Berry (Vi.; AUS); Pigeon Wood (Vi.; AUS); Poisonberry (Eng.; USN); Raspalengua (Cuba; JTR); Raspalengua de Costa (Cuba; JTR); Roble (Cuba; Pr.; AUS); Roble Guayo (Cuba; Pr.; Sp.; AUS; JTR; USN); Roble Negro (Cuba; AUS; JTR); Spoointree (Wi.; JTR); Strong Back (Bah.; AUS); Strong Bark (Bah.; Eng.; Fla.; AUS); Taiwai (Car.; Dom.; AUS); Watakeeri (Car.; Dwi.; AUS); White Chank (Dwi.; AUS). (Nscn).

**Activities:**

Antiinflammatory (f; JFM); Antiseptic (f; JFM); Aphrodisiac (f; AUS; JFM); Emollient (f; AUS); Fungicide (f; JFM); Hematinic (f; JFM); Hemostat (f; JFM); Hypotensive (f; AUS); Sedative (f; JFM); Tonic (f; JFM); Tranquilizer (f; JFM); Vulnerary (f; JTR).

**Indications:**

Aphtha (f; JTR); Back (f; AUS); Backache (f; AUS); Bleeding (f; JFM); Conjunctivitis (f; AUS); Dermatitis (f; JFM); Diarrhea (f; AUS); Fungus (f; JFM); Headache (f; AUS); High Blood Pressure (f; AUS); Impotence (f; AUS; JFM); Incontinence (f; JFM); Infection (f; JFM); Inflammation (f; JFM); Insomnia (f; JFM); Mucososis (f; JTR); Nephrosis (f; AUS); Nervousness (f; JFM); Ophthalmia (f; AUS); Sores (f; JTR); Stiffness (f; JTR); Thrush (f; JFM); Waist (f; AUS); Wounds (f; JTR).

**Dosages:**

FNFF = ! Fruits eaten (AUS; JFM).

- Bahamians take inner bark tea as a blood-enriching tonic, boiling the leaves in compound infusions as a CNS-sedative or strengthening tonic (JFM).
- Bahamians take leaf decoction for incontinence and nephrosis (JFM).
- Cubans use the leaves to cure the mouth of aphthae and other ails of the buccal membrane (JTR).
- Curaçaoans take leaf decoction, tea, or tincture as aphrodisiac (AUS; JFM).
- Dominican Caribs use emollient fluid from inner bark as a soothing lotion for sore eyes (AUS).
- Turk and Caicos Islanders boil whole young plants with *Capraria*, *Guaiacum*, or *Turnera* for diarrhea, fever, headache, or stiffness of limbs (JFM).
- Turk and Caicos Islanders take plant decoction with *Citharexylum* and *Thouinia* for pediatric running sores (JFM).
- Turk and Caicos Islanders take shoot tea with or without *Citharexylum* or *Tabebuia* for nephritic back problems (JFM).



**WILD PINEAPPLE (*Bromelia plumieri* (E. Morren) L. B. Sm.) ++****BROMELIACEAE****Synonyms:**

*Bromelia karatas* L.; *Karatas plumieri* E. Morren (basonym); fide (USN).

**Notes:**

Beauvoir et al. (2001) conclude that the Haitian species is *B. plumieri* (formerly *B. karatas*). Liogier (1974) and Morton (1977, 1981) conclude that there are two species in Hispaniola, "Maya" for *Bromelia pinguin*, or "Maya cimarrona" for *B. plumieri* (*B. karatas*) (AHL). But some authors, e.g., Arsene (1971), aggregate the common names of both, and all AVP referenced names below could apply to one or the other. USN recognizes three species in the complex, Morton (JFM) and Beauvoir et al. (VOD) two, Arsene (AVP) just one. I suspect the ethnomedicinal applications of *B. karatas* and *B. pinguin* are generic, doubting that the ethnics differentiate the two. Unlike Morton (1977, 1981) and Beauvoir et al. (2001), I have focused the medicinal data on *B. plumieri* doubting that many of the studies could retrospectively prove which species they studied. However, I think the folk medicinal uses of one could accrue to the other. Arvigo and Balick (1993) entries (as AAB) below were referred to *B. pinguin*. If Morton's (1977, 1981) descriptions are accurate, we might distinguish the species as follows:

Rosettes to 3 m wide, leaves to 2.5 m long, blue green above . . . . . *B. plumieri*

Rosettes to 1 m wide, leaves to 2 m long, dark green above. . . . . *B. pinguin*

Croat suggest that the species with inferior ovaries, like this and pineapple, are animal dispersed, while those with superior ovaries are mostly wind dispersed (TBC).

**Common Names:**

Achupalla (Peru; EGG); Ananas Marron (Haiti; AHL); Ananas Sauvage (Guad.; Guy.; Mart.; AVP); Anareke (Ma.; JFM); Anariki (Ma.; JFM); An-Nan'na Pengwen (Creole; Haiti; VOD); Bayonèt Pengwen (Creole; Haiti; VOD); Bayonette Pinguin (Haiti; AVP); Camburito (Ma.; JFM); Carata (Guad.; Guy.; Mart.; AVP; JFM); Cham (Ma.; JFM); Ch'am Ch'om (Ma.; Mex.; JFM; MAX); Chibichibe (Col.; AVP); Chigüe Chigüe (Ma.; JFM); Chihuichiue (Sp.; FAC); Chom (Ma.; JFM); Curibijul (Ma.; JFM); Curibijure (Ma.; JFM); Curujujul (Ma.; JFM); Cusuca (Ma.; JFM); Gravatá (Por.; AVP; JFM); Gravatá Commun (Por.; AVP); Gravatá de Gancho (Por.; AVP; JFM); Ix-Tot (Bel.; Maya; AAB); Jocuiste (Ma.; Mex.; AVP; JFM; MAX); Jucuitzli (Ma.; Mex.; AVP; JFM; MAX); Karatas (Guad.; Guy.; Mart.; AVP; JFM); Kurucujurro (Ma.; JFM); Macambira (Ma.; JFM); Maya (Dor.; Pr.; Sp.; AVP; JFM); Maya Cimarrona (Dor.; AHL; AVP); Maya de Burro (Dor.; AHL); Maya de Puerco (Dor.; AHL); Maya de Ratón (Dor.; AHL); Maya Piñon (Dor.; AHL; AVP); Motate (Sal.; AVP; JFM); Nana de Raposa (Ma.; JFM); Piña (Ma.; JFM); Piña de Cerco (Ma.; JFM); Piña de Raton (Ma.; JFM); Pinguin (Haiti; AVP); Pinguin (Pr.; AVP); Pinguin of Jamaica (Eng.; AVP); Piñuela (Bel.; Cr.; Cuba; Mex.; Pr.; Sp.; AAB; AVP; JFM; RyM); Piñuela Casera (Cr.; JFM); Piñuela de Cabeza de Negro (Ma.; JFM); Piñuela de Montana (Ma.; JFM); Piro (Cr.; AVP; JFM); Quiribijul (Ma.; JFM); Quirijujul (Ma.; JFM); Shiwishiwi (Ma.; JFM); Timbirichi (Ma.; Mex.; AVP; JFM; MAX); Vinuela (Sp.; AVP); Wild Pine (Eng.; AVP); Wild Pineapple (Eng.; VOD); Wild Pinguin (Ma.; JFM). (Nscn; American entries diacritically prepared).

**Activities:**

Abortifacient (f; VOD); Anthelmintic (f; MAX); Antidiabetic (f; JFM); Antiscorbutic (f; JFM; VOD); Antispasmodic (1; AAB); Cytotoxic (1; AAB); Diuretic (f; JFM); Emmenagogue (f; VOD); Febrifuge (f; JFM); Fungicide (1; X12165338); Hypotensive (1; AAB); Irritant (f;

VOD); Myorelaxant (1; AAB); Proteinase (1; X1368518); Vasodilator (1; AAB); Vermifuge (f; JFM).

**Indications:**

Burns (f; JFM); Cramps (1; AAB); Diabetes (f; DAW; JFM); Fever (f; JFM); Fracture (f; AAB); Fungus (1; X12165338); High Blood Pressure (1; AAB); Inebriation (f; DAW); Infection (1; X12165338); Mycosis (1; X12165338); Myosis (1; AAB); Osteosis (f; AAB); Parasites (f; JFM); Scurvy (f1; DAW); Spasms (1; AAB); Sprains (f; AAB); Worms (f; JFM; MAX).

**Dosages:**

FNFF = !! Fruits eaten raw or cooked; blanched young leaf bases eaten (FAC). Shoots forming at the base of plant eaten raw or cooked (VOD). Sugared fruits cooked to make edible gruel or syrup gruel; young flowers or shoots also cooked and eaten, with eggs or in soups (JFM).

- Belizeans pound leaves of *B. pinguin* with salt and poultice on fractures and sprains (AAB).
- Brazilians take leaf juice as febrifuge and vermifuge (JFM).
- Mexicans boil 10 fruits in 250 cc water, sweeten, taking 3–4×/day as diuretic (JFM).
- Mexicans boil 15 g seed in 200 cc water, sweeten, taking 3–4 cuplets/day for worms (JFM).
- Mexicans suggest that the fruit jelly will sober one up (MAX).
- Venezuelans apply the brown hairs from the leaf bases to burns (JFM).

**Downsides:**

Juice may irritate around the mouth when eating the fruits (VOD). As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**MURURÉ (*Brosimum acutifolium* Huber) ++**

**MORACEAE**

**Synonyms:**

*Brosimopsis acutifolia* (Huber) Ducke.; *B. obovata* Ducke.; *Brosimum acutifolium* spp. *obovatum* Ducke.; *B. caniceps* Standl.; *Piratinera acutifolia* (Huber) Pittier; fide (RAI).

**Notes:**

Mururé is in the mulberry family and the *Brosimum* genus includes approximately 50 species of tropical and warm-temperate trees in South America (RAI). A common remedy for rheumatism and arthritis throughout the Amazon and South America, it is also a common remedy for syphilis, from whence came the name “vegetable mercury.” Mercury was the leading treatment for syphilis in the late 1800s and early 1900s (RAI). Bufotenine, contained in the latex and the active ingredient in “takini,” a hallucinogen used by shamans in French Guiana, Suriname, and the region east of the Para in Brazil, is only found in the subspecies *B. acutifolium* Huber subsp. *acutifolium* C.C. Berg, found in eastern Guianas (X16455218).

**Common Names:**

Ahua Jonra (RAI); Amapá Doce (RAI); Bois Mondan (RAI); Bururé (RAI); Congona (RAI); Leche-Caspi (RAI); Manichi (RAI); Mercurio-Vegetal (RAI); Mercurio Vegetal (RAI); Mercurio-da-Terra-Firma (RAI); Morure (RAI); Muira-Piranga (RAI); Murare (RAI); Mururé (RAI); Murure-da-Terra-Firma (RAI); Murure-Vermelho (RAI); Mururi (RAI); Quecho (RAI); Takini (RAI); Takweni (RAI); Tamamuri (RAI); Tauni (RAI); Urupi (RAI); Vegetable Mercury (RAI).

**Activities:**

Analgesic (f; RAI); Anthelmintic (f; RAI); Antianemic (f; RAI); Antiarthritic (f; RAI); Anticancer (1; RAI; X16041652); Anticancer, colon (1; RAI; X16041652); Anticancer, lung (1;

RAI; X16041652); Antiinflammatory (f1; RAI); Antileukemic (f; RAI); Antirheumatic (f; RAI); Antisyphilitic (f; RAI); Antitumor (f1; RAI); Aphrodisiac (f; RAI); Appetant (f; RAI); Bactericide (f1; RAI); Candidicide (f1; RAI); Cytotoxic (f1; RAI; X16041652); Depurative (f; RAI); Fungicide (f1; RAI); PKA-Inhibitor (1; RAI; X12142996); PKC-Inhibitor (1; RAI; X12142996); Tonic (f; RAI); Vermifuge (f; RAI).

### Indications:

Anemia (f; RAI); Arthritis (f; RAI); Bacteria (f1; RAI); Cancer (1; RAI; X16041652); Cancer, colon (1; RAI; X16041652); Cancer, lung (1; RAI; X16041652); *Candida* (f1; RAI); Fungus (f1; RAI); Gastrosis (f; RAI); Impotence (f; RAI); Inappetence (f; RAI); Infection (f1; RAI); Inflammation (f1; RAI); Leukemia (f; RAI); Libido (f; RAI); Pain (f; RAI); Rheumatism (f; RAI); *Staphylococcus* (1; RAI); Syphilis (f; RAI); Tumors (f1; RAI); Ulcers (f1; RAI); Worms (f; RAI); Yeast (f1; RAI).

### Dosages:

FNFF = !! 2 ml bark tincture 3×/day (arthritis; increase libido) (RAI); 1 cup root decoction 3×/day (inflammation; worms) (RAI); 1 g capsule 3×/day (pain) (RAI).

- Amazonians use the bark for arthritis and rheumatism (RAI).
- Brazilians consider the bark antiinflammatory, antirheumatic, aphrodisiac, depurative, and tonic, and use for arthritis, gastric ulcers, pain, rheumatism, skin ulcers, and syphilis (RAI).
- Brazilians consider the root antirheumatic (RAI).
- Brazilians use as an analgesic for childbirth, menstrual, and muscle pain (RAI).
- Brazilians use the bark decoction in baths and washes for rheumatism and skin ulcers (RAI).
- Colombians consider the bark as antiasthmatic, digestive, laxative, and tonic (RAI).
- Guyanans occasionally add the latex to ayahuasca; also used for muscle pain (RAI).
- Guyanans use the bark in baths for fever (RAI).
- Guyanans use the root decoction for headaches and to improve memory (RAI).
- Palikur and Wayãpi of Guyana inhale the dried latex as a hallucinogen in ritual initiations (RAI).
- Peruvians consider it analgesic, using for gastrointestinal disorders, muscle pain, nervous system regulation, and vertigo (RAI).
- Peruvians consider the bark anthelmintic, tonic, and a vermifuge, using also for appetite (RAI).
- Peruvians use the bark decoction a/o tincture as antianemic, antiinflammatory, antirheumatic, antisyphilitic, aphrodisiac, and depurative, for anemia, arthritis, debility, diabetes, headaches, loss of balance, rheumatism, syphilis, yeast infections, and in baths for fever (RAI).
- Peruvians use the latex as an anthelmintic and tonic, also using for rheumatism and syphilis (RAI).
- Shipibo-Conibo Indians use the bark decoction for gastrointestinal disorders, to purify the blood, and regulate the nervous system (RAI).
- Shipibo-Conibo men ingest the latex believing they will produce light-skinned male children.
- Tikuna Indians use the bark decoction to lessen childbirth and menstrual pain (RAI).
- Wayãpi of Guyana use the latex to protect against bad spells and witchcraft (RAI).

### Downsides:

None reported (RAI). Reportedly non-toxic and without notable side effects (RAI).

### Extracts:

Four brocimacutin compounds, isolated from the bark, were cytotoxic to vincristine-resistant murine leukemia P388 cells (IC<sub>50</sub> = 4.4–19 µg/ml) (RAI; X16041652). Bark extract cytotoxic

to human colon and lung cancer cell lines *in vitro* (RAI). Two flavanolignans from the bark, mururin A and B, inhibit PKA by 3% and 58%, and PKC by 63% and 38%, respectively, at 20  $\mu\text{M}$  (RAI; X12142996). Bark antibacterial for *Bacillus*, *Candida albicans*, *Helicobacter pylori*, and *Staphylococcus* (RAI).

## BREADNUT (*Brosimum alicastrum* Sw.) ++

### MORACEAE

#### Illustrations:

p 337 (TTS)

#### Synonyms:

*Brosimum gentlei* Lundell; *B. terrabanum* Pittier.

#### Common Names:

Apomo (Ma.; JFM); Apompo (Sp.; USN); Barimiso (Ma.; JFM); Breadnut (Eng.; BNA; USN); Brotnußbaum (Ger.; USN); Capomo (Bel.; Sp.; BNA; USN); Congona (Peru; SOU); Corn Tree (Eng.; X13878207); Hairi (Ma.; JFM); Huje (Ma.; JFM); Huji (Ma.; JFM); Jushapu (Ma.; JFM); Juskapu (Ma.; JFM); Macica (Bel.; BNA); Manchinga (Peru; SOU); Marometique (Ashaninka; RAR); Maseco (Sp.; TTS); Mashonaste (Peru; RAR); Masicaran (Bel.; BNA); Moho (Ma.; JFM); Mojo (Ma.; JFM); Mojote (Ma.; JFM); Muju (Ma.; JFM); Munyeco (Ma.; JFM); Nazareno (Ma.; JFM); Noyer à Pain (Fr.; USN); Ojite (Sp.; TTS); Ojoche (Sp.; USN); Osh (Ma.; JFM); Ox (Bel.; Ma.; BNA; JFM); Oxotzzin (Ma.; JFM); Ramón (Bel.; Sp.; BNA; USN); Ramón Blanco (Bel.; Sp.; BNA; TTS); Ramon Rosa (Bel.; BNA); Ramu (Peru; RAR); Ranu (Peru; RAR); Red Breadnut (Bel.; BNA); Talcoite (Sp.; TTS); Tillo (Sp.; TTS); Tlatlacoyic (Ma.; JFM); Tzoltzax (Maya; TTS); Ujushe Blanco (Sp.; TTS); Ujushte (Bel.; BNA); Urpay Manchinga (Peru; SOU).

#### Activities:

Antitussive (f; EB36:166); CNS-Depressant (1; JFM); Lactagogue (f; DAW); Pectoral (f; JFM); Sedative (f; DAW).

#### Indications:

Asthma (f; DAW; EB36:166; JFM); Bronchosis (f; DAW; JFM); Cancer, uterus (f; JLH); Chest (f; DAW); Coughs (f; EB36:166); Dyslactea (f; DAW; EB36:166); Gastrosis (f; JFM); Insomnia (1; DAW; JFM); Nephrosis (f; EB36:166); Odontosis (f; EB36:166); Pulmonosis (f; DAW).

#### Dosages:

FNFF = !! Sap diluted with sweetened water for asthma (JFM). 8 g leaf boiled in 180 g sweet water, take 2 spoons every 2 hr for asthma or bronchosis (JFM). For dyslactea, take sweetened crushed seed decoction 3–4 $\times$ /day as lactagogue (JFM). Leaf tea used as cough suppressant and in nephrosis (EB36:166). Diluted latex used in tooth extraction, like the better known *Chlorophora* (EB36:166). Tonic bark concoction for asthma and chest pain (EB36:166).

#### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

#### Extracts:

Fruit extract stimulates lactation in humans and animals (EB36:166). Bark decoction depresses the CNS (JFM).

**PALO DE CRUZ (*Brownea ariza* Benth.) +****FABACEAE****Illustrations:**

p 349 (MPG)

**Synonyms:***Brownea princeps* Linder. ex Otto; *Hermesias ariza* (Benth.) Kuntze; fide (MPG).**Common Names:**

Ajtyarajke (Bora; Peru; EGG); Arbol de la Cruz (Col.; Sp.; MPG); Fanise-Ey (Huitoto; Peru; EGG); Flora de la Cruz (Col.; Sp.; MPG); Monterillo (Peru; Sp.; EGG; MPG); Palo Cruz (Col.; SAR); Palo de Cruz (Col.; Peru; Sp.; MPG; USN); Palo de Rosa (Col.; Sp.; MPG); Rosa de la Cruz (Col.; Sp.; MPG); Rosa de Monte (Col.; Sp.; MPG; USN). (Nscn).

**Activities:**

Antiedemic (1; X15264003); Astringent (f1; MPG); Emetic (f; SAR); Hemostat (f1; EGG; MPG); Laxative (f; MPG); Vulnerary (f; MPG).

**Indications:**

Bleeding (f; EGG; MPG; SAR); Childbirth (f; MPG); Constipation (f; MPG); Diarrhea (f; MPG); Edema (1; X15264003); Dysentery (f; EGG; MPG); Dysmenorrhea (f; SAR); Metrorrhagia (f; SAR); Pulmonosis (f; MPG); Snake Bite (1; X15264003); Wounds (f; MPG).

**Dosages:**

FNFF = ?

- Colombians suggest the bark tincture has antiedemic activity (X15264003).
- Peruvians suggest the floral a/o wood decoction for dysentery (EGG).
- Peruvians use bark and wood as hemostat (EGG).
- Siona use flowers in emetic hemostat teas for excessive menstruation (SAR).

**Extracts:**It was demonstrated that ethanolic extracts of stem bark, a *Brownea* they called *rosademonte*, partially neutralized the edema-forming activity of venom in a dose-dependent manner (X15264003).**ANGEL'S-TRUMPET (*Brugmansia arborea* (L.) Lagerh.) X****SOLANACEAE****Synonyms:***Datura arborea* L. (basonym); *Datura cornigera* Hook.; fide (USN).**Notes:**I frankly feel that all my *Brugmansia* data are taxonomically suspect and could be lumped as generic; all apparently rich in tropane alkaloids, and none very safe.**Common Names:**

Açucena do brejo (Brazil; Por.; MPB; USN); Angel's Trumpet (Eng.; RAR; USN); Baumartige Engelstropete (Ger.; USN); Cálice-de-Vênus (Brazil; Por.; USN); Campa (Peru; RAR); Campachu (Peru; SOU); Campanchu (Peru; RAR); Cartucheira (Brazil; Por.; USN); Cartucho-Branco (Brazil; Por.; USN); Chamico (Peru; RAR); Datura (Peru; RAR); Floripondia (Peru; RAR); Floripondio (Peru; Sp.; RAR; USN); Huantuc (Peru; RAR); Kilangara (Aym.; DLZ); Machiguenga (Peru; RAR); Maikoa (Eng.; USN); Maricahua (Peru; RAR); Saharo (Peru; SOU);

Saia Branca (Brazil; MPB); Toe (Peru; SOU); Trombeta (Brazil; Por.; USN); Trombeta Branca (Brazil; MPB); Trombeta-de-Anjo (Brazil; Por.; USN); Trombetno-Branco (Brazil; Por.; USN); Trombeteira (Brazil; MPB); Yaco Toe (Peru; RAR); Zabumba Branca (Brazil; MPB).

**Activities:**

Analgesic (f; MPB); Antiadditive (1; X12916089); Anticholinergic (1; MPB); CNS-Depressant (1; MPG); Sedative (1; MPB); Stupeficient (f; MPB); Toxic (f; DLZ; MPB).

**Indications:**

Abscesses (f; DLZ); Asthma (f; MPB); Boils (f; DLZ); Bugbites (f; DLZ); Cancer (f; DLZ); Colic (f; DLZ); Insomnia (1; MPB); Pain (f; MPB); Tumors (f; DLZ).

**Dosages:**

FNFF = X. Flower and leaf decoction applied to boils and tumors (DLZ); root decoction is a good wash for insect bites (DLZ); small potion of floral infusion drunk for colic (DLZ).

- Peruvians use for magic a/o therapeutic purposes (X12916089).

**Downsides:**

Poisoning has been reported. A case of mydriasis, due to an accidental exposure to angel's trumpet, was reported for a 6-year-old child (X15253491). Well endowed with activities attributed to the hard-core alkaloids, atropine and scopolamine (JAD), with all their downsides, e.g., atropine induces blurred vision, delirium, suppressed salivation, and vasodilation (VOD). As of July 2007, the FDA Poisonous Plant Database listed 55 titles alluding to toxicity of this species.

**Extracts:**

Tropane alkaloids significantly reduced morphine withdrawal in a dose-dependent manner, suggesting its use as a potential antiaddictive agent (X12916089).

**WHITE ANGEL'S TRUMPET (*Brugmansia suaveolens*  
(Humb. & Bonpl. ex Willd.) Bercht. & J. Presl) X**

SOLANACEAE

**Illustrations:**

p 423 (SAR)

**Synonyms:**

*Datura suaveolens* Humb. & Bonpl. ex Willd. (basionym); fide (USN).

**Notes:**

I frankly feel that all my *Brugmansia* data are taxonomically suspect and could be lumped as generic; all apparently rich in tropane alkaloids, and none very safe. Around Madre de Dios, they believe that planting the shrub around the house protects the home from evil spirits. (e.g., “cutipadi,” “daño y susto”). It is considered to be a dangerous “teacher” (= entheogenic) (MD2).

**Common Names:**

Ain Vai (Kofan; SAR); Angel's Trumpet (Eng.; AVP; USN); Babosa (Por.; AVP); Bell Flower (Eng.; JAD); Borrachero (Col.; SAR); Campana (Cuba; Pr.; Sp.; AVP); Campana de Paris (Pr.; Sp.; AVP); Campana Mansa (Dor.; AHL); Cartucheira (Brazil; X17172322); Choco Pana (Amahuaca; RAR); Chuchupanda (Amahuaca; MD2); Cloche (Creole; Haiti; VOD); Copo de Leite (Brazil; MPB); Duftende Engelstropfete (Ger.; USN); Erva Trombeta (Por.; AVP); Fey Kloch (Creole; Haiti; VOD); Floripondio (Col.; Peru; Sp.; MD2; MDD; SAR); Gayapa (Piro; Yine; MD2); Haiiapa (Huachhipaeri; MD2); Kanachiara (Shipibo/Coniba; MD2); Kanachijero (Piro; Yine; MD2); Magia Floripondia (Peru; RAR); Maikoa (Jivaro; SAR); Maricahua Blanco (Peru; Sp.; MDD); Reina de la Noche (Cr.; AVP); Saaro (Matsigenka; MD2); Saia Branca (Brazil; MPB); Stramoine en Arbre (Fr.; AVP); Stramoine Odorante (Fr.; Guad.; AVP); Toa (Col.; SAR); Toé (Col.; Ese'ija; Peru; Sp.; MD2; MDD; SAR); Trombeta (Por.; AVP); Trombeta Branca (Por.; AVP); Trombeta Cheirosa (Brazil; AVP; MPB); Trombeteira (Brazil; Por.; AVP; X17172322); Tuto Avaa (Kofan; SAR); Wahashupa (Sharanahua; RAR); White Angel's Trumpet (Eng.; USN); Xupu (Cashibo; RAR); Zabumba Branca (Brazil; MPB).

**Activities:**

Analgesic (1; X17172322); Anesthetic (1; FNF; VOD); Anthelmintic (f; AHL); Anticholinergic (1; VOD); Antiedemic (f; MD2); Antiseptic (f1; MPB; VOD); Antisialagogue (1; VOD); Antiviral (1; MPB); CNS-Depressant (1; MPG); Hallucinogenic (f; SAR; VOD); Mydriatic (1; SAR); Narcotic (f; SAR); Sedative (f; MPB); Toxic (f; DAV; SAR; VOD); Vasodilator (1; VOD); Vulnerary (f; MD2).

**Indications:**

Arthrosis (f; SAR); Asthma (f; AHL); Bruises (f; MD2); Caries (f; MD2); Chills (f; SAR); Colds (f; SAR); Cramps (f; SAR); Debility (f; VOD); Dermatitis (f; DAV); Dysmenorrhea (f; VOD); Edema (f; MD2); Erysipelas (f; SAR); Fever (f; SAR); Hemorrhoids (f; AHL); Infection (f1; MPB; SAR; VOD); Insomnia (f; MPB); Myosis (f; SAR); Orchosis (f; DAV); Pain (f1; FNF; VOD; X17172322); Pulmonosis (f; AHL); Rheumatism (f; SAR); Snake Bite (f; MD2); Sores (f; MD2); Stomatosis (f; MD2); Swelling (f; MD2; SAR); Vertigo (f1; FNF; VOD); Viruses (1; MPB); Worms (f; AHL); Wounds (f; MD2).

**Dosages:**

FNFF = X. Floral tea for chest afflictions (AHL).

- Amazon Indians use the juice for debility, dysmenorrhea, infection, and to communicate with the spirits (VOD).
- Dominicans, like Peruvians, smoke dried flowers as a hallucinogen (JAD; VOD).
- Madre de Dios Peruvians apply mashed leaves with salt and tobacco to bites and bruises, and use the stem pith for carious teeth and stomatosis (MD2).
- Madre de Dios Peruvians wash snake bite, from above to below, when the bite starts blackening (MD2).

**Downsides:**

Well endowed with activities attributed to the hard-core alkaloids, atropine and scopolamine (JAD), with all their downsides, e.g., atropine induces blurred vision, delirium, suppressed

salivation, and vasodilation (VOD). The FDA lists 65 citations, as of July 2007 for *Brugmansia suaveolens*, in its Poisonous Plant Database. But for some conventional food plants, they have 209 citations for potato; 0 for tomato; 0 for *Capsicum annuum*; 0 for *Capsicum baccatum*, 28 for *Capsicum frutescens*. Question: Which do you think is most toxic?

**Extracts:**

Aqueous flower extract antinociceptive (X17172322).

## FLORIPONDIO (*Brugmansia versicolor* Lagerh.) X

### SOLANACEAE

**Synonyms:**

*Datura mollis* Saff.; fide (USN).

**Notes:**

I frankly feel that all my *Brugmansia* data are taxonomically suspect and could be lumped as generic; all apparently rich in tropane alkaloids, and none very safe.

**Common Names:**

Campana (Sp.; USN); Floripondio (Peru; Sp.; LOR); Peach Angel's-Trumpet (Eng.; USN); Toe (Peru; Sp.; LOR).

**Activities:**

Antirheumatic (f; DAV; SAR); Antisialagogue (1; DAV; SAR); Antispasmodic (f; DAV); Antisuppurant (f; DAV; SAR); Decongestant (f; DAV); Hallucinogenic(f; DAV; SAR); Intoxicant (1; DAV; SAR); Purgative (f; DAV); Stimulant (f; DAV; SAR); Toxic (f; DAV; SAR).

**Indications:**

Arthrosis (f; DAV; SAR); Chills (f; DAV; SAR); Colds (f; DAV; SAR); Congestion (f; DAV); Cramps (f; DAV; SAR); Dermatitis (f; DAV); Erysipelas (f; DAV; SAR); Fever (f; DAV; SAR); Infection (f; DAV; SAR); Myosis (f; DAV; SAR); Orchosis (f; DAV); Rheumatism (f; DAV; SAR); Spasms (f; DAV); Swelling (f; DAV; SAR).

**Dosages:**

FNFF = X

**Downsides:**

Well endowed with activities attributed to the hard-core alkaloids, atropine and scopolamine (JAD), with all their downsides, e.g., atropine induces blurred vision, delirium, suppressed salivation, and vasodilation (VOD). As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

## BORRACHERO (*Brugmansia x candida* Pers.) X

### SOLANACEAE

**Synonyms:**

*Datura candida* (Pers.) Saff.; fide (USN).

**Notes:**

I frankly feel that all my *Brugmansia* data are taxonomically suspect and could be lumped as generic; all apparently rich in tropane alkaloids, and none very safe.



**Common Names:**

Almizcillo (Peru; SOU); Angel's Tears (Eng.; RAR); Angel's Trumpet (Eng.; RAR; USN); Borrachero (Sp.; CR2; USN); Campana (Bol.; Sp.; DLZ; USN); Campanchu (Peru; RAR); Campanilla (Peru; SOU); Capachu (Peru; SOU); Datura (Sp.; RAR); Floripondio (Sp.; CR2; USN); Floripondio Blanco (Bol.; DLZ); Weiszlige Engelstrompete (Ger.; USN); White Angel's-Trumpet (Eng.; USN).

**Activities:**

Carminative (f; CRC); CNS-Depressant (1; MPG); Emetic (f; CRC); Hallucinogenic (f; CRC); Intoxicant (f; CRC); Narcotic (f; CRC); Poison (f; CRC); Psychotropic (f; CRC); Sedative (f; JFM); Toxic (f; DLZ); Vermifuge (f; CRC).

**Indications:**

Abscesses (f; DLZ); Arthrosis (f; CRC); Asthma (f; CRC; JFM); Bites (f; DLZ); Bleeding (f; DLZ); Chest Ailments (f; CRC); Colds (f; IED); Cramps (f; IED); Dysentery (f; DLZ); Erysipelas (f; CRC); Flu (f; JFM); Fracture (f; CRC); Gas (f; CRC); Headache (f; DLZ; JFM); Hemorrhoids (f; CRC); Inflammation (f; IED); Insomnia (f; CRC); Pain (f; CRC); Pulmonosis (f; CRC); Rabies (f; DLZ); Rheumatism (f; CRC); Tumors (f; CRC; JFM); Worms (f; CRC; IED); Wounds (f; DLZ).

**Dosages:**

FNFF = X. Cooked leaves mashed and applied to abscesses, dog bites, and tumors (DLZ). Flower, leaf, a/o root decoctions taken for dysentery and rabies (DLZ).

**Downsides:**

“Said to induce insensibility, hallucinations, and madness” (CRC). Well endowed with activities attributed to the hard-core alkaloids, atropine and scopolamine (JAD), with all their downsides, e.g., atropine induces blurred vision, delirium, suppressed salivation, and vasodilation (VOD). As of July 2007, the FDA Poisonous Plant Database listed 26 titles alluding to toxicity of this species.

**PINK ANGEL'S-TRUMPET (*Brugmansia × insignis*  
(Barb. Rodr.) Lockwood ex R. E. Schult.) X**

SOLANACEAE

**Synonyms:**

*Datura insignis* B. Rodr. (basionym); fide (USN).

**Notes:**

I frankly feel that all my *Brugmansia* data are taxonomically suspect and could be lumped as generic; all apparently rich in tropane alkaloids, and none very safe.

**Common Names:**

Ain (Kofan; SAR); Ain Vai (Kofan; SAR); Campana (Sp.; USN); Danta Borrachero (Col.; SAR); Huanduj (Que.; SAR); Kua Vau (Kofan; SAR); Kuwao (Ingano; SAR); Maricahua (Peru; Sp.; LOR); Maricaua (Brazil; MPB; SAR); Muhu Pehi (Siona; SAR); Pehi (Secoya; SAR); Pimpinella Borrachero (Col.; SAR); Pink Angel's-Trumpet (Eng.; USN); Sacha Toe (Peru; Sp.; LOR); Seme Pehi (Siona; SAR); Takiyai Pehi (Siona; SAR); Toa-Toe (Brazil; Col.; Peru; Sp.; LOR; SAR); Toe (Brazil; Peru; Por.; Sp.; LOR; MPB; USN); Wandu (Que.; SAR).

**Activities:**

Analgesic (f; SAR); CNS-Depressant (1; MPG); Hallucinogen (f; MPG; SAR); Hypnotic (f; SAR); Narcotic (f; SAR); Sedative (f; SAR); Tranquilizer (f; SAR).

**Indications:**

Insomnia (f; SAR); Nervousness (f; SAR); Pain (f; SAR); Stress (f; SAR).

**Dosages:**

FNFF = X.

**Downsides:**

Overdoses can be fatal (SAR). Well endowed with activities attributed to the hard-core alkaloids, atropine and scopolamine (JAD), with all their downsides, e.g., atropine induces blurred vision, delirium, suppressed salivation, and vasodilation (VOD).

## CHIRICSANANGO (*Brunfelsia grandiflora* D. Don.) X

### SOLANACEAE

**Illustrations:**

p 316 (MPB)

**Notes:**

I have aggregated the three most popular Amazon species doubting that they are distinguished by the natives medicinally, if indeed they are valid species. Closely related to Brazilian uniflora (manaca).

**Common Names:**

Borrachero (Col.; Peru; SAR); Chipiri Tsontsimba ka (Kofan; SAR); Chircaspi Chacruco (Que.; SAR); Chircaspi Picuda (Que.; SAR); Chircaspi Salvaje (Que.; SAR); Chiric Sanango (Peru; Que.; Sp.; LOR; MDD; USN); Chuchuwasha (Peru; Sp.; LOR; RAR); Chuchuwasha Sanango (Peru; Sp.; LOR); Fever Tree (Eng.; JAD); Hu Ha Hai (Siona; SAR); Moca Pari (Peru; Sp.; LOR); Sanango (Col.; Peru; SAR); Yai Hu Ha Hai (Siona; SAR).

**Activities:**

Abortifacient (f; CRC; SAR); Alterative (f; CRC); Anesthetic (f; CRC); Antiblennorrhagic (f; MPB); Antiinflammatory (f1; CRC; SAR); Antirheumatic (f; MPB; PH2); Antiseptic (f; 60P); Diaphoretic (f; CRC; DAV); Diuretic (f; CRC; DAV; PH2); Emetic (f; MPB); Emmenagogue (f; CRC); Hypertensive (f; CRC); Hypothermic (f1; CRC; SAR); Laxative (f; CRC); Lymphotonic (f; CRC); Narcotic (f; CRC); Piscicide (1; SAR); Poison (f; CRC); Purgative (f; CRC; MPB); Vulnerary (f; 60P).

**Indications:**

Arthritis (f; CRC; DAV; PH2); Bleorrhagia (f; MPB); Chills (f; DAV); Colds (f; 60P); Constipation (f; CRC); Dermatitis (f; CRC); Eczema (f; CRC); Fever (f1; CRC; DAV; SAR); Infection (f; 60P); Inflammation (f1; CRC; SAR); Low Blood Pressure (f; CRC); Lymph (f; CRC); Pain (f; CRC; 60P); Rheumatism (f; CRC; DAV; MPB; PH2); Scrofula (f; CRC; PH2); Skin Disorders (f; CRC); Snake Bite (f; DAV; SAR); Syphilis (f; CRC; PH2); VD (f; CRC; DAV; PH2); Wounds (f; 60P); Yellow Fever (f; DAV; SAR).

**Dosages:**

FNFF = X.

- Ese'eja take leaf infusion for colds (60P).
- Ucayali Conibo take root decoction for arthritic pain (60P).

**Downsides:**

Not covered (AHP; KOM). "No health hazards are known in conjunction with the proper administration of designated therapeutic dosages" (not designated) (PH2 re *B. hopeana*). Overdoses may cause death, with anxiety, convulsions, increased cardiac and pulmonary activity, muscle tremors, salivation, spasms, and vomiting (PH2 re *B. hopeana*). Hallucination accompanied by serious side effects, e.g., chills, cold sweats, heavy tongue, itchiness, nausea, stomachache, temporary insanity, tingling, and vomiting (DAV). Very toxic, causing in Jim Duke thought, tongue, and talking difficulties, alternating chills and fever, cold sweats, diarrhea, swelling, numbness, heavy feet, walking difficulties, torpor, and vertigo (JAD). As of July 2007, the FDA Poisonous Plant Database listed seven titles alluding to toxicity of this species.

**Extracts:**

Brunfelsamidine, lactic acid, quinic acid, scopoletin, and tartaric acid reported from *Brunfelsia* spp.

## MANACA (*Brunfelsia uniflora* (Pohl) D. Don) X

### SOLANACEAE

**Synonyms:**

*Brunfelsia hopeana* (Hook.) Benth.; *B. mutabilis* (Jacques) A. Vilm.; *Franciscea hopeana* Hook.; *F. mutabilis* Jacques (basynym); *F. uniflora* Pohl (basynym); fide (USN).

**Common Names:**

Manacá (Por.; USN); Manacán.

**Activities:**

Abortifacient (f; CRC); Alterative (f; CRC); Analgesic (1; X1842002); Anesthetic (f; CRC); Antiinflammatory (f1; CRC; X1842002; X895395); Antirheumatic (f; PH2); Antispasmodic (1; X11582535); Antivenom (snake) (f; X1842002); CNS-Depressant (1; X895395); Diaphoretic (f; CRC); Diuretic (f; CRC; PH2); Emmenagogue (f; CRC); Hypertensive (f; CRC); Hypothermic (f; CRC); Laxative (f; CRC); Lymphotonic (f; CRC); Narcotic (f; CRC); Poison (f; CRC); Purgative (f; CRC; HHB).

**Indications:**

Arthritis (f; CRC; HHB; PH2); Constipation (f; CRC); Cramps (1; X11582535); Dermatitis (f; CRC); Eczema (f; CRC); Fever (f; CRC); Inflammation (f1; CRC; X1842002; X895395); Low Blood Pressure (f; CRC); Lymph (f; CRC); Pain (f1; CRC; X1842002); Rheumatism (f; CRC; PH2); Scrofula (f; CRC; PH2); Snake Bite (f; X1842002); Spasms (1; X11582535); Syphilis (f; CRC; HHB; PH2); VD (f; PH2).

**Dosages:**

FNFF = X.

**Downsides:**

Not covered (AHP). “No health hazards are known in conjunction with the proper administration of designated therapeutic dosages” (not designated) (PH2). Overdoses may cause death, with anxiety, convulsions, increased cardiac and pulmonary activity, muscle tremors, salivation, spasms, and vomiting (PH2). Excessive doses poisonous, causing salivation, vertigo, general anesthesia, partial facial paralysis, swollen tongue, and turbid vision. Even in small doses manacine induces strong muscular tremors and epileptiform cramps, hypothermia, and death from respiratory paralysis in experimental animals (CRC). As of July 2007, the FDA Poisonous Plant Database listed six titles alluding to toxicity of this species.

**Extracts:**

Fresh a/o dried plant infusion analgesic a/o antiinflammatory (X1842002). Scopoletin, found in the roots, spasmolytic in rat-induced contractions (26–520  $\mu\text{M}$ ) (X11582535). Chloroform root extract (100 mg/kg orl rat) CNS-depressant; equally as effective as phenylbutazone in reducing edema in rats (X895395).

**AMERICAN BUDDLEJA (*Buddleja americana* L.) +  
LOGANIACEAE**

**Illustrations:**

p 63 (DLZ)

**Synonyms:**

*Buddleja callicarpoides* HBK.; *B. cana* Willd.; *B. dentata* HBK.; *B. floribunda* HBK.; *B. occidentalis* L.; *B. rufescens* Willd.; *B. spicata* R. & P.; *B. verbascifolia* HBK.; fide (MPG).

**Notes:**

Widely used but not as widely studied as the Asian *Buddleja*, nor as well known as the ornamental *Buddleja*, this one seems to be the best known of the Latin American species; hence I am using the common name “American Buddleja.”

**Common Names:**

American Buddleja (Eng.; JAD); Arnica (Ma.; JFM); Carpales (Peru; EGG); Cayolinan (Ma.; JFM); Cayolizcan (Ma.; JFM); Cayolozan (Ma.; JFM); Cayoluian (Ma.; JFM); Hierba de la Mosca (Sp.; JFM); Hierbe del Mosco (Ma.; JFM); Hoja Blanca (Nic.; MPG); Hoja de Queso (Sp.; JFM); Hoja de Salbe (Sp.; JFM); Hoja de Salve (Sp.; JFM); Jonq' Ch'aphiri (Aym.; Bol.; DLZ); Lengua de Vaca (Ma.; Peru; EGG; JFM; SOU); Mata de Queso (Sp.; JFM); Orqo Kiswara (Aym.; Bol.; Que.; DLZ); Queso (Sp.; JFM); Salvia (Sal.; MPG); Salvia Blanca (Sp.; JFM); Salvia Real (Sp.; JFM); Salvia Santa (Sp.; JFM); Salvia Sija (Sp.; JFM); Salvia Virgen (Sp.; JFM); Salviona (Sal.; MPG); Tabaco Cimarrón (Cuba; JTR); Tabaco de Monte (Sp.; JFM); Tabaquilla (Sp.; JFM); Tepozán (Nic.; MPG); Topoza (Sp.; JFM); Topozan (Sp.; JFM); Yurakc Sacha (Peru; EGG; SOU); Zayolizcan (Ma.; JFM); Zompantle (Ma.; JFM). (Nscn).

**Activities:**

Analgesic (f; JFM); Antiseptic (1; MPG; ROE); Bacteria (1; MPG); Decongestant (f; MPG); Diuretic (f1; EGG; JFM; MPG); Emetic (f; JFM); Febrifuge (f; MPG); Hepatoprotective (1; MPG); Hypnotic (1; MPG); Neuroprotective (1; X12231380); Purgative (f; JFM); Sudorific (f; MPG).

**Indications:**

Abscesses (1; MPG); Aposteme (f; MAX); Arthrosis (f; DLZ; MPG); Asthma (f; JFM); Bacteria (1; MPG); Bilioussness (1; MPG); Bruises (f; JFM); Burns (f; JFM); Carbuncles (f; JFM); Cirrhosis (f; MAX); Congestion (f; MPG); Cystosis (f; DLZ); Dermatitis (1; MPG); Diarrhea (f; DLZ; MPG); Dyspepsia (f; JFM); Edema (f; JFM); Epistaxis (f; JFM); *Escherichia* (1; MPG); Fever (f; MPG); Furuncles (1; MPG); Gastrosis (f; MPG); Headache (f; BEJ; JFM); Hepatosis (1; DLZ; MPG); Infection (f1; MPG; ROE); Insomnia (f; JFM); Leukorrhea (f; JFM); Nephrosis (f; MPG); Neurosis (f; X12231380); Oliguria (f; MPG); Ophthalmia (f; BEJ); Pain (f; JFM; MPG); Parkinson's (f; X12231380); Prostatosis (f; DLZ); Pulmonosis (f; MPG); Rheumatism (f; DLZ; MPG); Sedative (f; JFM); Sores (f1; DLZ; MPG); *Staphylococcus* (1; MPG); Stomachache (f; MPG); Swelling (f; JFM); Tetanus (f; MAX); Tumors (f; JLH); Uterosis (f; JFM; MPG); Wounds (f; DLZ; MPG).

**Dosages:**

FNFF = ? Peruvians smoke the leaves with tobacco (EGG).

- Bolivians use bark and leaf decoction to wash rheumatoid joints, the floral tea for cystosis, dropsy, hepatosis, and prostatosis (DLZ).
- Costa Ricans and Guatemalans take leaf decoction for asthma and dyspepsia (JFM).
- Ecuadorians use cooked leaves for bad air (evil eye, in cane alcohol), eyesight, and headache (BEJ).
- Guatemalans use as a diuretic, febrifuge, sudorific, and in nephrosis (MPG).
- Latinos apply crushed leaves as an antiseptic poultice on bruises, burns, carbuncles, rheumatic pain, and wounds, binding on head as an analgesic for headache (JFM).
- Mexicans use the root bark for oliguria, uterine prolapse, and wounds (MPG).
- Nicaraguans use the leaf and root decoction or tea to treat congestion, diarrhea, infections, nephrosis, pulmonosis, and stomachache (MPG).
- Salvadorans steep leaves overnight in alcohol to massage rheumatic joints, taking the leaf decoction for diarrhea and stomachache (MPG).

**Extracts:**

Though working with an Asian species, neuroprotective activity was demonstrated for verbascoside, suggesting a possible utility in Parkinson's (X12231380).

**PERUVIAN BUDDLEJA (*Buddleja incana* Ruiz & Pav.) +  
LOGANIACEAE**

**Synonyms:**

*Buddleja rugosa* (HBK).

**Notes:**

Seems to have more mythical than medicinal connotations (MPG).

**Common Names:**

Álamo (Peru; Sp.; EGG; USN); Chanchunga (Ecu.; Que.; MPG); Collei (Peru; EGG); Kiswara (Aym.; Bol.; Que.; DLZ); Kollia (Peru; ROE); Kurawara (Peru; ROE); Quishuar (Bol.; Ecu.; Que.; DLZ; MPG); Quishuara (Peru; Que.; USN); Quisoar (Peru; Que.; USN); Quissuar (Peru; ROE); Quisuar (Peru; EGG).

**Activities:**

Antiseptic (f; MPG); Astringent (f; DLZ; EGG; MPG); Cicatrizant (f; EGG; MPG); Vulnerary (f; MPG).

**Indications:**

Arthrosis (f; DLZ); Childbirth (f; ROE); Dropsy (f; DLZ); Gonorrhea (f; MPG); Hip (f; ROE); Infection (f; MPG); Inflammation (f; ROE); Keratitis (f; EGG; MPG); Pain (f; DLZ); Rheumatism (f; DLZ); Sores (f; DLZ; ROE); Urethrosis (f; MPG); Uterosis (f; ROE); Vaginosis (f; MPG); VD (f; EGG; ROE); Warts (f; EGG; ROE); Wounds (f; DLZ; EGG; MPG).

**Dosages:**

FNFF = ? Pollen used as substitute for saffron (EGG).

- Bolivians use the bark for gonorrhea (MPG).
- Bolivians use the floral tea for dropsy (MPG).
- Chileans use dry flower to treat sores and remove warts (MPG).
- Ecuadorians apply mashed bark, leaves, or roots to sores and wounds (MPG).
- Ecuadorians take 2 cups/day infusion (100 g leaf/l water) for urinary and vaginal infections (MPH).
- Peruvians use astringent decoction for sores and warts (EGG).
- Peruvian veterinarians use leaves with those of *Rumex* to wash keratitis (EGG).

**GAIAWOOD (*Bulnesia sarmientoi* Lorentz ex Griseb.) +  
ZYGOPHYLLACEAE**

**Notes:**

*Bulnesia* was excluded by McGuffin et al. (2000) and Duke et al. (2002) but included by Leung and Foster (1995), and by Craker and Simon (1986). Blumenthal et al. (1998) identified their guaiacwood, as did McGuffin et al. (2000), as either *Guaiacum officinale* or *G. sanctum*, not indexing *Bulnesia* at all. The USDA nomenclature database (USN) recognized both of the genera involved. So I am burdened with selecting the best common name since there is no standardized common name.

**Common Names:**

Bois de Gaïac (Fr.; USN); Gaiacwood (Eng.; USN); Guaico (It.; USN); Guajaco (Sp.; USN); Guajakholz (Ger.; USN); Guayacán (Bol.; Sp.; DLZ; USN); Iguiraitá (Bol.; Chiriguano; DLZ); Mememquic (Bol.; Chiquitano; DLZ); Palo Bálsamo (Sp.; USN); Palo Santo (Sp.; USN); Paraguay-Lignum-Vitae (Eng.; USN); True Guaiac (Eng.; USN). (Nscn).

**Activities:**

Analgesic (f; DLZ; LAF); Antiinflammatory (f1; FNF; LAF); Antioxidant (f; LAF); Antiseptic (1; X15070177); Bactericide (1; X15070177); Sudorific (f; DLZ).

**Indications:**

Bacteria (1; X15070177); Dermatitis (f; DLZ; LAF); Gout (f; LAF); Infection (1; X15070177); Inflammation (f1; FNF; LAF); Myalgia (f; DLZ); Pain (f; DLZ; LAF); Rheumatism (f; DLZ; LAF); Sciatica (f; DLZ); *Staphylococcus* (1; X15070177); Syphilis (f; DLZ); VD (f; DLZ).

**Dosages:**

FNFF = ! Guaiacwood oil used to flavor baked goods, beverages, candies, desserts, gelatins, meat and meat products, and puddings, max use levels ca. 0.002% (22 ppm); used in cosmetics and perfumes, max use levels up to 0.8% (LAF).

- Bolivians use the resin for myalgia, rheumatism, and sciatica (DLZ).
- Bolivians wash dermatitis and syphilis with the leaf decoction (DLZ).

**Downsides:**

Seeds (with 3.5% crude saponin) toxic to one-week-old chicks and adult hamsters (X6523713).

**Extracts:**

Leung and Foster (1996) may be hinting that Hemoccult is based on this species, saying it “is mainly used as a diagnostic reagent (e.g., in testing for occult blood).” More of my sources suggests Hemoccult is based on *Guaiacum officinale*. Checking PubMed, I found 80 citations searching Hemoccult AND Guaiac, 34 citations searching Hemoccult AND *Guaiacum*, 0 for *Bulnesia*, *Hamaetoxylon*, or logwood with Hemoccult. Google searches gave 0 for *Bulnesia* and for *Haematoxylon*, 18 for *Guaiacum*, the first of which said that Van Deen is credited with being first to find that gum guaiac, a resin prepared from the wood of *Guaiacum officinale*, was useful in detecting occult blood. The test contains a specially prepared, stabilized, standardized guaiac paper.

## CARAÑA (*Bursera graveolens* (Kunth) Triana & Planch.) +

### BURSERACEAE

**Synonyms:**

*Amyris caranifera* Willd ex Engl.; *Bursera malacophylla* B.L. Robinson; *B. penicellata* (Sesse & Moc.) Engl.; *B. tacamano* Triana & Planch.; *Elaphrium graveolens* Kunth (basionym); *E. tacamano* Tal.; *Spondias edmonstonei* Hook. f.; *Terebinthus graveolens* Rose.; fide (BEJ).

**Common Names:**

Brasil Colorado (Ma.; JFM); Caragana (Bol.; Chiriguano; DLZ); Caraña (Nic.; MPG); Chachique (Ma.; JFM); Chicle (Ma.; JFM); Copalillo (Ma.; JFM); Crispín (Peru; Sp.; SOU; USN); Huacor (Peru; SOU); Huancoe (Ma.; JFM); Nabanche (Ma.; JFM); Palo Santo (Ecu.; Peru; Sp.; BEJ; SOU; USN); Sasafrás (Cuba; Sp.; JTR; USN); Sasafrás del País (Cuba; JTR); Wanqor (Que.; DLZ); Zazafras (Ma.; JFM). (Nscn).

**Activities:**

Abortifacient (f; MPG); Analgesic (f; MPG; RAR); Antiinflammatory (f; MPG); Antisarcotic (1; X15684524); Antispasmodic (f; JTR); Cytotoxic (1; X15684524); Deodorant (f; BEJ); Depurative (f; MPG); Diaphoretic (f; MPG); Expectorant (f; MPG); Sedative (f; DLZ); Sudorific (f; RAR).

**Indications:**

Colic (f; MPG); Cramps (f; JTR); Ear (f; BEJ); Fibrosarcoma (1; X15684524); Gastrosis (f; JTR); Headache (f; SOU); Inflammation (f; MPG); Insomnia (f; DLZ); Otitis (f; BEJ); Pain (f; MPG; RAR); Rheumatism (f; JTR; MPG; SOU); Sarcoma (1; X15684524); Spasms (f; JTR); Sties (f; JFM); Stomachache (f; MPG); Swelling (f; MPG); Wounds (f; MPG).

**Dosages:**

FNFF = ?

- Costa Ricans apply the oil resin from the trunk to newborn navels to treat sties (JFM).
- Cubans use alcoholic macerate as antirheumatic and sudorific (JTR).
- Cubans use buds as abortifacient and in vaginal douches (MPG).
- Cubans use the leaves for stomach cramps (JTR).
- Ecuadorians use stem a/o latex for anemia, body odor, and ear ailment (BEJ).
- Guatemalans use leaves and stems for stomachache (MPG).
- Nicaraguans use for colic, inflammation, pain, rheumatism, swelling, and wounds (MPG).
- Peruvians use bark poultice as analgesic, depurative, diaphoretic, and expectorant, and for stomachache (JFM; MPG; SOU).

**Extracts:**

A 4alpha-aryltetralin-type lignan, “burseranin” and the lignan picropolygamain were isolated along with triterpenes, lupeol and epi-lupeol, from methanol stem extracts, which inhibited human HT1080 fibrosarcoma cells (X15684524).

**GUMBO LIMBO (*Bursera simaruba* (L.) Sarg.) +  
BURSERACEAE**

**Illustrations:**

fig 105 (L&W)

**Synonyms:**

*Bursera gummifera* L.; *B. ovalifolia* (Schlecht.) Engl.; *Elaphrium simaruba* (L.) Rose; *Pistacia simaruba* L. (basionym); *Terebinthus simaruba* (L.) Sarg.; fide (JTR; L&W; MPG; USN).

**Notes:**

This one has more common names than indications, and I think that is due to the red exfoliating bark which captures the imagination. Austin (2004) notes that the American “gumbolimbo” got that name, the standardized common name (AH2), apparently from African slaves, taken perhaps from “ngombo ulimbo” which translates “slaves bird lime.” Austin adds that “gumbolimbo” has more than 100 common names, presenting interesting observations on their origins (AUS). Linnaeus first thought it to be a pistachio but later noted his error. At my last count, I seemed to have 187 names for this species, more than I think any of my publishers would care to publish. In my early ethnobotany inquiries in the 1960s, the Choco Indians, who have very little facial hair, told me that the bark decoction of this “Naked Indian” tree was a depilatory and would eliminate shaving for us gringos. Like the capitalistic gringo I was, I suspected that this could really be worth money to men, and women, tired of shaving their faces and elsewhere. But alas, my limited experimentation was to no avail and I still have to shave, regrettable these days when the airline security forces confiscated a collector’s item, my last set of double-edged razor blades.

**Common Names:**

Aceitero (Cr.; Cuba; AUS; AVP); Ahiciáhki (Seminole; AUS); Almácigo (Cuba; Dor.; Pan.; Peru; Sp.; IED; JTR; RAR; TBC); Almácigo Blanco (Cuba; Dor.; AVP); Almácigo Carate (Col.; AVP); Almácigo Colorado (Cuba; AUS; JTR); Almácigo Encarnado (Pr.; AUS); Arbol del Turista (Cr.; MPG); Archipén (Fwi.; AVP); Archipin (Ma.; JFM); Azucarero (Cuba; AUS; JTR; MPG); Balsam Tree (Dwi.; JFM; L&W); Birch (Bel.; Pr.; AVP; BNA); Birch Gum (Bar.; AVP); Birchwood (Eng.; AUS.; JFM); Bois de Gommier Blanc (Fr.; USN); Bois d’Encens (Haiti; AUS; AVP); Budge (Jam.; AVP); Budge Gum (Eng.; JFM); Bwa d’Encens (Creole; Haiti; VOD); Ca-Cah (Maya; AUS; BNA); Ca-Cch (Maya; BNA); Ca-ch (Maya; AUS); Cachibú (Car.; Cuba; MPG); Cajha (Maya; AUS; JFM); Caraña (Cr.; AUS; AVP; JFM); Carate (Pan.; Sp.; AUS; IED; JFM; TBC); Caratero (Col.; Pan.; AUS; AVP; MPG); Chaca (Bel.; Mex.; AUS; BNA; L&W); Chacag (Maya; AUS); Chacah (Maya; AUS); Chacah Colorado (Maya; Mex.; AUS); Chacai (Maya; Nahuatl; AUS); Chacaj (Mex.; Tojolobal; AUS); Chacajjota (Mex.; Nahuatl; AUS; JFM); Chaca Piocha (Mex.; AUS; MPG); Chaka (Mex.; AVP); Chakah (Maya; Mex.; AAB; AVP); Chakan (Maya; AUS); Chak Chakaj (Maya; AUS); Chiboué (Haiti; AVP); Chicah (Ma.; JFM); Chicchica (Guat.; AUS; L&W); Chicohuiste (Mex.; Nahuatl; AUS); Chinacahuiste (Guat.; Nahuatl; AUS; JFM; L&W); Chinacuite (Hon.; AVP); Chino (Guat.; AUS; L&W); Chioué (Haiti; L&W); Chique (His.; AHL; JFM); Chocogüite (Mex.; Nahuatl; AUS); Chocohuite (Mex.; Nahuatl; AUS); Chohuite (Mex.; Nahuatl; AUS); Chola Pelao (Pan.; MPG); Copal (Mex.; Nahuatl; AUS); Copalcuahuil (Mex.; Nahuatl; AUS);



Copalillo (Ma.; JFM); Copalli (Mex.; Nahuatl; AUS); Copón (Hon.; L&W); Cucheme (Ven.; JFM; L&W); Dryland Gommier (Trin.; AUS); Ecorce de Gommier (Haiti; AVP); Elemi (Mex.; AVP); Ginicuiste (Nic.; AVP); Ginicuite (Nahuatl; AUS); Gomali (Ma.; JFM); Gomalimi (Ma.; JFM); Gommard (Fwi.; AVP); Gomme Elemi (Bah.; AUS); Gomme Mombin (Grenada; AUS; AVP); Gommier (Fwi.; AVP); Gommier Barrière (Creole; Guad.; Haiti; Mart.; St. Bart.; VOD); Gommier Blanc (Guad.; Haiti; Mart.; St. Bart.; AUS; AVP); Gommier Maudit (St. Lucia; AUS; L&W); Gommier Rouge (Guad.; Mart.; L&W); Gomyé (Creole; Haiti; VOD); Gomyé Blan (Creole; Haiti; VOD); Guácimo (Col.; AUS; L&W); Gumalimi (Ma.; JFM); Gumbo Limbo (Eng.; Scn.; Sp.; AH2; USN); Gum Elemi (Bah.; Eng.; Por.; Usa.; AUS; AVP); Gum Tree (Bah.; Pr.; AVP; L&W); Huechichi (Pan.; Sp.; TBC); Hukup (Bel.; L&W); Hupuk (Maya; Mex.; AUS; AVP); Incense Tree (Jam.; AUS; AVP); Indian Nue (Fr.; Trin.; AUS; AVP); Indio Desnudo (Bel.; Col.; Guy.; Pan.; Sp.; AUS; AVP; IED; L&W; TBC); Indio en Cuero (Pan.; MPG); Indio Peludo (Bel.; AUS); Itotiná Span (Creek; Usa.; AUS); Jamaica Birch Tree (Eng.; VOD); Jenequite (Hon.; AUS; L&W); Jicote (Ma.; Nahuatl; AUS); Jicote Chino (Guat.; MPG); Jicuite (Nic.; AVP); Jiñicuite (Nic.; L&W); Jiniquite (Cr.; Nic.; Pan.; AUS); Jiño (Ma.; AVP); Jino (Cr.; Nic.; Pan.; AUS); Jiñocauaba (Cr.; Nic.; Pan.; AUS); Jiñocauca (Cr.; Nic.; Pan.; AUS); Jiñocuave (Cr.; Nic.; Pan.; AUS); Jiñocuavo (Cr.; Nic.; AVP); Jiñote (Cr.; AVP); Jiote (Sal.; AVP); Jiote Colarado (Mex.; AUS); Jobo (Dor.; AHL; AUS); Jobo Pelón (Ven.; AUS; L&W); Juave (Ma.; JFM); Kàlmoli (Bribri; IED); Kal No (Maya; AUS); Karmari (Cebecar; Cr.; MPG); Kla (Bribri; Cr.; MPG); Kölo (Bribri; IED); Lami (Arab.; AUS); Lime Tree (Dwi.; AUS); Limsi (Miskito; Nic.; AUS); Lonshalaec (Chontal; Mex.; AUS); Mara (Ven.; AVP); Marare (Ven.; AVP); Marero (Ma.; JFM); Maro (Ma.; JFM); Mastic (Ma.; AUS; JFM); Mastic Tree (Eng.; Jam.; AVP; VOD); Mulato (Mex.; AUS; AVP); Naked Boy (Tobago; AVP); Naked Indian (Eng.; Trin.; AVP; TBC); Paaloe Sieja Doesji (Dwi.; L&W); Paaloe Sieja Maatsjoe (Dwi.; L&W); Palo Chino (Bel.; Guat.; Hon.; Mex.; AUS; AVP); Palo Colorado (Mex.; AUS; AVP); Palo de Incienso (Sp.; Ven.; AUS; JFM; L&W); Palo Jiote (Guat.; Hon.; Mex.; Sal.; Sp.; AVP; USN); Palo Mulato (Mex.; Ocn.; Sp.; AH2; AUS; AVP; USN); Palo Pulato (Guat.; L&W); Palo Retinto (Mex.; AUS; L&W); Palu Di Sia Corra (Dwi.; AUS); Palu Di Sia Dushi (Dwi.; AUS); Palu Di Sia Machu (Dwi.; AUS); Palumulat (Mex.; AUS); Peeling Bark Gommier (Trin.; L&W); Pellejo de Indio (Ven.; AUS; AVP); Pellejudo (Mex.; AUS); Percha (Sp.; AUS); Pom (Ma.; AUS); Quiote (Mex.; AUS; AVP); Red Birch (Ma.; JFM); Red Gumbo Limbo (Bel.; BNA; L&W); Resbalo Mono (Col.; Pan.; AUS; L&W); Sac Chacah (Ma.; JFM); Sac Chaka (Maya; Mex.; AUS); Sak Chakan (Mex.; AVP); Scopa (It.; AVP); Sia (Dwi.; AUS); Sia Blancu (Dwi.; AUS); Sieja Blanco (Dwi.; AUS; AVP; L&W); Sirvela Simarona (Bel.; BNA); Solpiem (Ma.; JFM); Suchicopal (Mex.; Tabasco; AUS); Sucrier de Montagne (Guad.; Mart.; St. Bart.; AVP); Surúsu Wügüri (Garifuna; Nic.; IED); Tacamaca (Mex.; AVP); Tacamacha (Aztec; Nahuatl; AUS); Tacamahac (Aztec; Nahuatl; AUS); Tacamahaca (Aztec; Nahuatl; AUS); Tacamahack (Aztec; Nahuatl; AUS); Tacamaque (Aztec; Nahuatl; AUS); Taccamahac (Aztec; Nahuatl; AUS); Tacka Mahacca (Aztec; Nahuatl; AUS); Tasun (Mex.; Tepehua; AUS); Ta'sun (Mex.; Tootonac; AUS); Teuc (Mex.; Otomi; AUS); Thecomahaca (Aztec; AUS); To'oro Mulat (Mex.; AUS); Torchwood (Hon.; L&W); Tsic (Mex.; Otomi; AUS); Tsoc (Mex.; AUS); Turpentine Tree (Eng.; Jam.; AVP; VOD); Tusun Ta'Sun (Ma.; JFM); Tzaca (Huastec; Mex.; AUS); West Indian Birch (Ocn.; Sp.; AH2; VOD; USN); Xaca (Maya; AUS; BNA); Xacagoque (Ma.; JFM); Xaka (Maya; AUS); Yalaguito (Zapotec; AUS); Zadelhout-Boom (Ma.; JFM); Zongolica (Mex.; AVP; JFM; MPG). (American entries diacritically prepared).

### Activities:

Anthelmintic (f; VOD); Antidote (f; AAB); Antiedemic (f1; X15099859); Antihemorrhagic (f1; VOD; X10883329); Antiinflammatory (f1; MAX; X12065153; X15099859); Antiseptic (f; AHL; AUS; VOD; X12787962); Antispasmodic (f1; MPG; JTR); Antitumor (1; MPG); Aph-

rodisiac (f; AUS); Astringent (f; MPG); Bactericide (1; X12787962; X15707768); Cicatrizant (f; MPG); Cytotoxic (f1; MPG; X161406); Depilatory (f; AUS; MPG); Depurative (f; AAB); Diaphoretic (f; AUS); Diuretic (f; AUS; MPG; VOD); Expectorant (f; AUS; VOD); Febri-fuge (f; VOD); Fungicide (1; MPG); Hemostat (f1; VOD; X10883329); Hydragogue (f; MPG); Insecticide (f; MPG; VOD); Insectifuge (f; AUS; JFM); Lactagogue (f; AHL); Litholytic (f; VOD); Molluscicide (1; AAB; MPG); Myorelaxant (f; MPG); Purgative (f; AUS; MPG); Seda-tive (f; VOD); Sudorific (f; JFM); Tonic (f; IED); Vasodilator (1; MPG); Vulnerary (f; AUS; JFM; VOD); Zinc Chelator (f1; VOD; X10883329).

### Indications:

Abscesses (f; VOD); Adenopathy (f; VOD); Anemia (f; IED); Arthrosis (f; AUS; JFM); Asthma (f; JFM); Backache (f; JFM); Bacteria (f1; X12787962; X15707768); Bites (f; AAB); Bleeding (f1; VOD; X10883329); Bleennorrhagia (f; JFM); Boils (f; MPG); Bruises (f; VOD); Burns (f; MPG); Calculus (f; AUS; VOD); Cancer (f1; JLH; MPG); Cancer, stomach (f1; JLH; MPG); Catarrh (f; MPG); Childbirth (f; IED); Colds (f; AUS; JFM; MPG); Coughs (f; JFM); Cramps (f1; MPG; JTR); Debility (f; AUS); Dentition (f; JFM); Dermatitis (f; MAX; MPG); Diarrhea (f; AUS; VOD); Dropsy (f; AUS); Dysentery (f; VOD); Dyslactea (f; AUS); Dyspepsia (f; JTR; MPG); Edema (f1; VOD; X15099859); Enterorrhagia (f; AUS); Entero-sis (f; AHL; VOD); Epistaxis (f; MPG); Fever (f; JFM; MPG; VOD); Flu (f; AAB; JFM); Fungus (f1; MPG); Ganglia (f; VOD); Gangrene (f; AUS; VOD); Gas (f; AUS); Gastrosis (f; MPG; VOD); Gonorrhoea (f; JFM); Gout (f; JFM); Head Colds (f; AUS); High Blood Pressure (f1; JFM; MPG); Hysteria (f; AUS); Impotence (f; AUS); Infection (f1; AAB; AHL; AUS; IED; MPG; VOD; X12787962; X15707768); Inflammation (f1; MAX; VOD; X12065153; X15099859); Insomnia (f; VOD); Kidney Stones (f; VOD); Leukorrhoea (f; JFM); Malaria (f; MPG); Measles (f; AAB; MPG); Mucososis (f; MPG); Mycosis (f1; MPG); Nephrosis (f; AHL; JFM; VOD); Obesity (f; IED; JTR; MPG); Pain (f; AHL; AUS; VOD); Pregnancy (f; IED); Pulmonosis (f; VOD); Rashes (f; AAB; IED); Respirosis (f; AUS); Rheumatism (f; AUS; JFM); Sarcoma (1; MPG); Sciatica (f; AUS); Snake Bite (f1; AUS; VOD; X10883329); Sores (f; AAB; AUS; IED); Sore Throat (f; JFM); Spasms (f1; MPG; JTR); Sprains (f; AHL); *Staphylococcus* (1; X15707768); Stings (f; JFM); Stomachache (f; AUS; MPG); Stones (f; VOD); Sunburn (f; AAB); Sunstroke (f; AAB); Swelling (f1; JFM; VOD; X15099859); Syphilis (f; JFM); Toothache (f; AUS; VOD); Tumors (f1; JLH; MPG); Typhoid (f; AAB); Ulcers (f; MPG); Urethrosis (f; VOD); UTIs (f; AAB); VD (f; AUS; MPG); Worms (f; VOD); Wounds (f; AUS; JFM; MPG; VOD); Yellow Fever (f; AUS).

### Dosages:

FNFF = ! Leaves used as tea substitute (FAC).

- Belizeans boil 12-inch strip of bark 10 min, cool and apply topically to bites, itch, measles, rashes, sores, and sunburn, taking internally for cold, flu, infection, nephrosis, pain, sunstroke, and UTIs (AAB).
- Belizeans suggest leaves in steam baths for typhoid (AAB).
- Choco Indians wash cuts with bark decoction, covering the wound with ashes of burned bark; their claim that the bark decoction would prevent hair from growing, lucrative if true for men tired of shaving, did not prove out, at least with me (IED; MPG).
- Colombians use wood macerate as a slimming agent (JTR).
- Costa Ricans drink ½ cup bark decoction 3×/day, one before breakfast for gastric ulcers (MPG).
- Cubans use as a stomachic tonic, for colds and diarrhea (JTR).
- Dominican Caribs plaster the resin on bruises and wounds (VOD).
- Dominicans apply the vulnerary root resin to sprained ankles (AHL).
- Dominicans take the leaf tea for intestinal pain (AHL).

- Guatemalans use the bark for dermatoses, mucous derangements, and stomach cramps (MPG).
- Haitians apply sap or terminal shoot on abscess, chest pain, ganglial inflammation, swollen glands, and toothache (VOD).
- Haitians compress macerated seed in water to snake bite (VOD).
- Haitians compress the leaves on gangrene (VOD).
- Haitians take the bark tea for fever (VOD).
- Haitians take the macerated bark or root for diarrhea, digestive upsets, and urethritis (VOD).
- Haitians use the expectorant and vulnerary gum for calculus, diarrhea, dysentery, and kidney stones (VOD).
- Haitians use the resin as insecticide (VOD).
- Jamaicans boil bark chips from east side of tree with prickly poppy for high blood pressure (JFM).
- Mexicans use fresh bark for burns, fevers, GI upsets, measles, and nosebleed (MPG).
- Nicaraguan Garifuna take bark decoction, orally or as bath, for childbirth, pregnancy, infections, skin rashes, and sores, and as tonic for anemia (IED).
- Venezuelans take the bark decoction for fever, rheumatism, syphilis, swollen feet (JFM), and for stomach cancers (JLH).
- Yucatanese say fruits and young buds mashed in water neutralize snake venom (MAX).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**Extracts:**

Ethanollic, ethyl acetate and aqueous extracts totally inhibited the hemorrhage induced by *Bothrops asper*, probably owing to the chelation of zinc required for catalytic activity of venom's hemorrhagic metalloproteinases (X10883329). Hexane leaf extract antiinflammatory, comparable to phenylbutazone (80 mg/kg, p.o.), in carrageenan-induced paw edema inflammation (X15099859). Hexane leaf extract at 80 mg/kg strongly inhibited acute and (mainly) chronic phases of inflammation, as effectively as phenylbutazone (80 mg/kg) and indomethacin (3 mg/kg) (X9121169). Alcoholic, aqueous, and ketonic extract cytostatic (X161406).

**GOLDEN SPOON (*Byrsonima crassifolia* (L.) Kunth) ++****MALPIGHIACEAE****Illustrations:**

fig 43 (IED); p 345 (TTS)

**Synonyms:**

*Byrsonima cumingiana* Juss.; *B. fendleri* Turcz.; *B. lanceolata* DC.; *B. panamensis* Beurl.; *B. pulchra* Sesse & Mocino ex DC.; *Malpighia crassifolia* L.; *M. pulchra* Sesse & Moc.

**Common Names:**

Café d'Ethiopie (Guad.; AVP); Cajuil Cimarron (Dor.; AHL); Cha (Bel.; BNA); Changungo (Ma.; JFM); Chaparro (Ma.; JFM); Chaparro de Chinche (Ma.; JFM); Chaparro de Manteca (Col.; Ven.; AVP; RAR); Chaparro de Sabana (Ven.; AVP); Chaparro Manteca (Ma.; JFM); Chengua (Ma.; JFM); Chi (Bel.; Guat.; AVP; BNA); Chupi Cara (Sa.; RAR); Crabo

(Hon.; AVP); Craboo (Bel.; AVP; BNA; USN); Crabu (Bel.; BNA); Crapoo (Bel.; AVP; BNA); Doncela (Dom.; AVP; JFM); Douradinha Falsa (Brazil; RAR); Golden Spoon (Eng.; IED; USN); Grabon (Bel.; BNA); Hori (Sur.; AVP); Huizaa (Ma.; JFM); Huria (Br. Guy.; AVP; JFM); Indano (Sa.; Sp.; RAR; USN); Indano Colorado (Sa.; RAR); Locust Berry Tree (Eng.; Ma.; JFM); Maache (Ma.; JFM); Madronyo (Wi.; AHL); Mama-Hnya (Ma.; JFM); Manero (Ma.; JFM); Manteco (Col.; IED); Manteco Merey (Ma.; JFM); Manteco Sabanero (Ma.; JFM); Mantquera (Ma.; JFM); Manzanyita (Ma.; JFM); Maricao (Dom.; AVP); Maricao Verde (Pr.; AVP); Maurissi (Fr.; USN); Messico (Ma.; JFM); Murecy (Ma.; JFM); Mureí (Garifuna; IED); Murici (Brazil; Por.; RAR; USN); Muruci (Brazil; RAR); Muruci do Campo (Por.; JFM); Murushi (Sa.; RAR); Nance (Bel.; Cr.; Mex.; Pan.; BNA; IED; USN); Nance Agrio (Mex.; AVP); Nancen (Ma.; JFM); Nance Verde (Sal.; AVP); Nanche (Mex.; AVP); Nanche de Perro (Ma.; JFM); Nanchi (Ma.; JFM); Nanci (Bel.; BNA); Nancite (Ca.; AVP; JFM); Nancito (Hon.; Sal.; AVP); Nantzin (Ma.; JFM); Nantzin Quahuítl (Ma.; JFM); Nantzin Xocotl (Ma.; JFM); Nonce (Bel.; BNA); Noro (Col.; AVP; IED; JFM); Paraleja (Col.; AVP); Paralejo (Cuba; Dom.; AVP); Paralejo de Savana (Cuba; AVP); Peraleja (Col.; Sp.; IED; USN); Peraleja Hembra (Ma.; JFM); Peralejo (Pr.; AVP); Peralejo Blanco (Pr.; AVP; JFM); Peralejo de Pinares (Ma.; JFM); Peralejo de Sabana (Ma.; JFM); Quillo Sisa (Sa.; RAR); Quinquina des Savannes (Guad.; AVP); Sabana Kwari Moeleidan (Sur.; AVP); Sabana Mango (Sur.; AVP; JFM); Sabanna Serrette (Sur.; AVP); Sacpan (Bel.; BNA); Savanna Serrette (Ma.; JFM); Sour Craboo (Bel.; BNA); Tapal (Guat.; AVP); Tash (Ma.; JFM); U-e (Ma.; JFM); U-eo (Ma.; JFM); Wild Cherry (Eng.; Pan.; AVP; IED); Wild Craboo (Bel.; AVP; BNA; JFM); Xacpah (Ma.; JFM); Xakpah (Ma.; JFM); Yaca (Ma.; JFM); Yaga Huizaa (Ma.; JFM); Yoco (Sp.; USN); Yuco (Col.; AVP; JFM); Zac Pah (Ma.; JFM); Zacpan (Bel.; BNA).

### Activities:

Acaricide (1; MPG); Analgesic (f; IED); Antidermatophytic (1; X2056755); Antidote (f; RAR); Antileishmanic (1; X17482379); Antimycotic (1; X2056755); Antitussive (f; MPG); Astringent (f; IED; JFM); Bactericide (1; MPG; X10432211; X2214824); Candidicide (1; MPG); Cicatrizant (1; MPG); Digestive (f; JFM; MPG); Diuretic (f; RAR; TTS); Emmenagogue (f; MPG); Febrifuge (f1; RAR; X11482789); Fungicide (1; MPG; X2056755; X8145577); Lactagogue (f; JFM; MPG); Piscicide (f; IED); Spasmogenic (1; X8412247); Tonic (f; JFM; RAR); Trypanocide (1; X9741882).

### Indications:

Amygdalosis (f; MPG); Asthma (f; TTS); Bacteria (1; MPG; X10432211; X2056755; X2214824); Bleeding (f; TTS); Bronchosis (f; JFM; TTS); *Candida* (1; MPG); Chest (f; TTS); Childbirth (f; JFM; TTS); Colds (f; TTS); Colitis (f; TTS); Constipation (f; MPG); Coughs (f; JFM; MPG; TTS); Debility (f; TTS); Dermatophyte (1; MPG; X2056755); Dermatitis (f1; IED; JFM; MPG; TTS; X2056755); Diarrhea (f; IED; RAR); Dysentery (f; RAR); Dysmenorrhea (f; TTS); Dyspepsia (f; IED); Enterosis (f1; TTS; X2214824); Fever (f1; RAR; X11482789); Fungus (1; MPG; X2056755; X8145577); Gastrosis (f1; TTS; X2214824); Infection (1; MPG; X10432211; X2056755; X2214824; X8145577); *Klebsiella* (1; X10432211); *Leishmania* (1; X17482379); Leukorrhea (f; MPG); Measles (f; TTS); Menorrhagia (f; TTS); *Micrococcus* (1; X10432211); Mucososis (f; TTS); Mycosis (f1; MPG; TTS; X2056755; X8145577); Neuralgia (f; MPG); Odontosis (f; JFM; MPG); Pain (f; IED); *Pseudomonas* (1; X10432211); Pulmonosis (f; TTS); Pyorrhea (f; MPG; TTS); Rashes (f; IED); *Salmonella* (1; MPG); *Shigella* (1; MPG; X10432211); Snake Bite (f; JFM); Sores (f; MPG); *Staphylococcus* (1; MPG; X10432211); Stomachache (f; TTS); Stomatosis (f; TTS); *Streptococcus* (1; MPG; X10432211); Tonsilosis (f; TTS); Trypanosoma (1; X9741882); Tuberculosis (f; RAR); Wounds (f1; JFM; MPG).

**Dosages:**

FNFF = !! Fruits widely eaten in the tropics, and used in fermented and distilled beverages; source of oil (FAC; IED; TAN). Bark decoction for bronchitis, constipation, cough, dermatosis, diarrhea, and fever (JFM); leaf decoction for aches, pains, dermatosis, diarrhea, and dyspepsia (IED); bark and flower decoction for asthma, cough, fever, and amygdalosis.

- Brazilians use the plant for debility, dysmenorrhea, menorrhagia, and pain (TTS).
- Guatemalans use for gastrointestinal disorders (X2214824).
- Mexicans use bark decoction as digestive and tonic, and to help expel the placenta (JFM).
- Yucatanese use the bark to tighten loose bowels and to tighten loose teeth (JFM).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**Extracts:**

Bark extracts kill enterobacteria *Salmonella*, *Shigella*, and *Streptococcus* (MPG). Methanol bark extract (IC<sub>50</sub> < 50 µg/ml) leishmanicidal for *Leishmania mexicana* promastigotes (X17482379). Ethyl acetate root extract active against *Klebsiella pneumoniae*, *Pseudomonas aeruginosa*, *Salmonella typhi*, *Shigella flexneri*, *Staphylococcus aureus*, *S. epidermidis*, *Streptococcus pneumoniae*, and *Micrococcus luteus* (X10432211). Aqueous bark and leaf extract (1.25 g extract/100 g dried plant) produced decrease in motor activity, back tonus, reversible parpebral ptosis, catalepsy, and strong hypothermia (X11448542; X11482789). Leaf and bark extract spasmogenic (X8412247). *Byrsonima verbascifolia* (L.) (HBK) showed anti-HSV activity at 2.5 µg/ml (X11535363).

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## PRIDE-OF-BARBADOS (*Caesalpinia pulcherrima* (L.) Sw.) ++

### FABACEAE

#### Illustrations:

fig 369 (LWW); pl 346 (KAB)

#### Synonyms:

*Poinciana pulcherrima* L. (basionym); fide (USN).

#### Notes:

Associated with the deity Oxum in the Afro-Brazilian Candomblé religion (VOD quoting Voeks, 1997).

#### Common Names:

Barbados Pride (Eng.; KAB; USN); Barbón (Sal.; JTR; LWW); Barbona Rofa (Nic.; LWW); Bas Phul (Nepal; NPM); Bird of Paradise Flower (Eng.; LWW); Caballero (Pi.; KAB); Cacasúchit (Mex.; MAX); Cansic (Bel.; BNA; JFM); Canzinkin (Bel.; Maya; AAB; JFM); Carzaza (Sp.; AVP); Carzazo (Dor.; AHL; JTR; LWW); Chacaloxóchitl (Mex.; MAX); Chacamalxóchitl (Mex.; MAX); Chacikin (Mex.; JTR); Chaczinkin (Mex.; JFM; MAX); Chagas de Jesus (Por.; AVP); Chamol (Mex.; AVP); Chana (Malaya; IHB); Chapa (Guat.; AVP); Chinchemalinche (Mex.; MAX); Chink-In (Bel.; Maya; AAB); Ciriguanita (Ma.; JFM); Clavelina (Pr.; Sp.; LWW); Clavellina (Col.; Cr.; Cuba, Pr.; Sal.; Sp.; AVP; JTR; LWW); Clavellina Colorado (Ven.; AVP; LWW); Daungsop (Burma; KAB); Diep Ta (Ic.; KAB); Dok Fan (Ic.; KAB); Doodle Do (Bwi.; Ma.; JFM); Dul Dul (Pr.; Usa.; AVP); Dwarf Poinciana (Eng.; LWW; USN); Espanta Lobos (Guat.; JFM); Fang Ham (Ic.; KAB); Fèy Sousi (Creole; Haiti; VOD); Flambeau Flower (Bel.; AAB; BNA; LWW); Fleur de Paon (Fwi.; AVP); Fleur d'España (Fwi.; AVP); Fleur du Paradis (Fr.; AVP; KAB); Fleurs Jaunes (Haiti; AHL); Flor Barbona (Guat.; Sal.; JTR; LWW); Flor de Ángel (Col.; Peru; AVP; EGG; JTR); Flor de Camarón (Mex.; LWW; MAX); Flor de Chapa (Guat.; JFM; JTR); Flor de Gucamaya (Ma.; JFM); Flor de la Virgen (Bel.; BNA); Flor de Pavo (Col.; JFM; JTR); Flor de San Francisco (Mex.; AVP; MAX); Florito (Col.; JFM; JTR); Flower-Fence (Eng.; Ocn.; AH2; JTR; UPW; USN); Flower-Fence Poinciana (Eng.; LWW); Francillade (Haiti; AVP); Francillade à Fleurs Jaunes (Haiti; AHL); Francillade à Fleurs Rouges (Haiti; AHL); Francillane (Haiti; AVP); Franciyad (Creole; Haiti; VOD); Franciyann (Creole; Haiti; VOD); Frijol (Sp.; EGG; SOU); Fromboyan Frances (Fr.; RAR); Gallito (Guat.; JTR; LWW); Galtora (Guj.; WO2); Guacamaya (Cuba; Guat.; Nic.; Sal.; JTR; LWW; RyM); Guacamaya Pequeña (Nic.; JTR); Guayacan (Bol.; DLZ); Guletura (Hindi; KAB; WO2); Gulutura (Hindi; WO2); Hång Nok Yüng Tai (Thai; IHB); Hierba del Espanto (Guat.; AVP; JTR); Hoja de Sen (Cr.; AVP; JTR); Hojasen (Ca.; LWW); Hojas Sen (Bol.; DLZ); Huaika Sisal (Sp.; EGG; RAR); Huaita Sisa (Sp.; EGG; RAR); Irritación (Bel.; AAB); Jambu Mèrak (Malaya; IHB); Kan Gok Meas (Ic.; KAB); Kansik (Bel.; AVP); Kanzinkin (Ma.; JFM); Kenjigaegidda (Kan.; WO2); Kenjige (Kan.; KAB); Kim Phuong (Ic.; KAB); Kim Phuong Hoa (Ic.; KAB); Komari (Kan.; WO2); Krerekrere (Ma.; JFM);

Krishnachura (Ben.; Sanskrit; DEP; NAD); Krishnochuda (Oriya; KAB; WO2); Macata (Fwi.; His.; AHL; AVP); Malinche (Cr.; AVP); Maravilha (Brazil; LWW); Maravilla (Mex.; LWW); Maravilla Moreña (Mex.; JTR); Mayikonrai (Tam.; WO2); Mayilkonna (Mal.; WO2); Mayilkonnai (Tam.; NAD); Mayirkonrai (Tam.; KAB); Mayuram (Tam.; KAB; SKJ); Molinche (Nic.; AVP); Nalal (Tam.; KAB; WO2); Nok Yāng Tai (Thai; IHB); Orgueil de Chine (Fr.; UPW); Padangam (Sanskrit; WO2); Pamiditangedu (Tel.; KAB; WO1); Paradise-Flower (Eng.; Ocn.; AH2; USN); Peacock Flower (Eng.; FAC; WO1); Phuong Hoang Chang (Ic.; KAB); Poincillade (Fwi.; Haiti; AHL; AVP; JTR; UPW); Pride-of-Barbados (Eng.; Scn.; AH2; USN); Radhachura (Tripura; WO2); Ratnagandhi (Kan.; Sanskrit; Tam.; Tel.; Tulu; DEP; KAB; NAD; WO2); Rosas Caballero (Pi.; KAB); Sandhesharo (Guj.; KAB; WO2); Santa Rosa (Ma.; JFM); Settimandaram (Mal.; KAB; WO2); Shankasur (Guj.; WO2); Sidhakhya (Sanskrit; KAB); Sidhanasha (Sanskrit; KAB); Sidheshwara (Sanskrit; KAB); Sinnaturayi (Tel.; KAB); Sirina Daniqua (Mex.; JTR); Sirumayirkonrai (Tam.; KAB); Spanish Carnations (Bar.; Jam.; KAB; LWW); Tabachill (Mex.; JTR); Tabachin (Mex.; Ocn.; Sp.; AH2; LWW); Tabachin Amarillo (Mex.; JTR); Tabaquin (Ma.; JFM); Tabaquino (Mex.; JTR); Tachino (Mex.; JTR); Techimandaram (Mal.; KAB); Thurai (Tel.; NAD); Ti Ponpon (Creole; Haiti; VOD); Toetoeroetoe (Ma.; JFM); Turayi (Tel.; KAB); Tuteurutu (Ma.; JFM); Wild Senna (Jam.; AVP).

### Activities:

Abortifacient (f; DAV; EGG; JFM; JTR; MAX); Anthelmintic (f; EGG); Anticancer (1; KAB; WO2); Anticancer, breast (1; X14531033); Anticancer, lung (1; X14531033); Anticancer, oral (1; X14531033); AntiHIV (1; X12837746); Antiinflammatory (1; X15893896); Antiseptic (1; WO2); Antitubercular (1; X14531033); Antitussive (f; EGG); Antiviral (1; WO2; X12837746); Astringent (f; IHB); Bactericide (1; AAB; WO2; X12193012; X16730921); Bechic (f; AHL; VOD); Cathartic (f; DAV); Cytotoxic (1; WO2); Emetic (f; DLZ); Emmenagogue (f; JFM; JTR; MAX; VOD); Febrifuge (f; DAV; EGG); Fetotoxic (f; EGG); Fungicide (1; WO2; X12193012); Gram(+)-icide (1; WO2); Hemostat (f; EGG); IL-12-Inhibitor (1; X15893896); Laxative (f; EGG; JFM); NO-Inhibitor (1; X15893896); Piscicide (f; DAV; JTR); Purgative (f; VOD); Sudorific (f; AHL; VOD); TNF-alpha-Inhibitor (1; X15893896); Tonic (f; PIO); Tumor-Promoter (1; AAB); Vulnerary (f; AHL).

### Indications:

Amenorrhea (f; VOD); Angina (f; PIO); Asthma (f; SKJ); Bacteria (1; AAB; WO2; X12193012; X16730921); Biliousness (f; VOD); Bleeding (f; EGG); Bronchosis (f; SKJ; VOD); Cancer (f1; KAB; WO2); Cancer, breast (1; X14531033); Cancer, lung (1; X14531033); Cancer, oral (1; X14531033); Canker (f; VOD); Catarrh (f; JTR; WO2); Cholera (f; KAB); Colds (f; JFM); Conjunctivosis (f; MAX; NPM); Constipation (f; EGG; JFM; VOD); Convulsions (f; WO2); Coughs (f; DLZ; EGG; JFM; NPM); Dermatitis (f; JFM; NPM; VOD); Diarrhea (f; AAB; IHB); Enterosis (f; WO2); Erysipelas (f; JFM; JTR; MAX; VOD); *Escherichia* (1; AAB); Fever (f; AAB; DAV; DLZ; EGG; JTR; VOD); Flu (1; UPW); Fungus (f1; AAB; WO2; WO3; X12193012); Gastrosis (f; AAB; IHB); Gingivitis (f; DLZ); Hepatosis (f; EGG; JTR; UPW; VOD); HIV (1; X12837746); Infection (1; AAB; WO2; X12193012; X16730921); Inflammation (1; X15893896); Kidney Stones (f; JFM; WO2); Malaria (f; JTR; NPM; SKJ); Measles (f; VOD); Melancholy (f; AAB); Metrorrhagia (f; EGG); Mycosis (f1; AAB; WO2; WO3); Nephrosis (f; JFM); Odontosis (f; JFM); Pulmonosis (f; PIO; WO2); Respirosis (f; JTR); Ringworm (f; WO3); Sores (f; JFM; VOD); Sore Throat (f; JFM; MAX; PIO); *Staphylococcus* (1; AAB); Stomatosis (f; JFM; MAX); Stones (f; JFM); Swelling (f; AAB); Toothache (f; PIO); Tuberculosis (1; X14531033); Vaccinia (1; UPW); VD (f; JFM); Viruses (1; UPW; WO2; X12837746); Worms (f; EGG; WO2); Wounds (f; AHL; VOD).

**Dosages:**

FNFF = ! Flower decoction mixed with beaten egg for cough (JFM). Hulled green seeds eaten raw or cooked; flowers cooked and eaten; green pods eaten by Senegalese children; seeds yield an edible oil (AAB; FAC; JFM; TAN; UPW; WO2).

- Africans take the root decoction for malaria; powdered root for infantile convulsions (WO2).
- Argentinians drink a sweetened cup of emmenagogue decoction (half handful flowers/0.5 liter water) to bring on the period. "Strong doses may cause abortion" (JFM).
- Barbadians give children crushed flower tea for griping and stomachache (JFM).
- Belizeans recommend baths in solar tea of 2 handful leaves/gal water for melancholy ("tristes") (AAB).
- Belizeans suggest solar tea for "irritación," an infantile disease with cold hands and feet, diarrhea, fever, perspiration, and swollen belly (AAB).
- Curaçaoans take decoction of 7 yellow flowers for sore throat (JFM).
- Filipinos use the flower tea for asthma, bronchitis, and malaria; the leaves are considered emmenagogue, purgative, and stimulant (KAB).
- Haitians take floral decoction as antibilious, bechic, febrifuge, and sudorific (VOD).
- Haitians take or apply ground leaf and flower decoction for amenorrhea, bronchosis, constipation, erysipelas, infections, measles, and wounds (VOD).
- Indochinese consider the leaf infusion abortifacient, antiperiodic, and cathartic (KAB).
- Indonesians use leaf decoction or tea for kidney stones (WO2).
- Indonesians use the leaves of yellow flowering shrubs, with acorns and onions, for distended stomach (IHB).
- Indochinese use the roots for cholera (KAB).
- Nepalese take ca. 3 tsp root juice 4×/day for malaria (NPM).
- Nepalese take floral infusion for conjunctivitis (NPM).
- Nepalese take leaf decoction for ulcers of the mouth and throat (NPM).
- Nicaraguans use bark tea for catarrh, constipation, dermatosis, and fever, and as abortifacient (JTR).
- Peruvians drink floral tea as an antitussive (EGG).
- Peruvians take the floral and bark tea for fever (EGG).
- Peruvians use floral/foliar tea as anthelmintic and as a douche for vaginal bleeding (EGG).
- Senegalese use floral decoction for asthma, bronchosis, fever, pulmonary ailments, viral hepatitis, and "as a strong abortive" (UPW).
- Surinamese take 1 powdered dry leaf/cup water 3×/day for kidney stones (JFM).
- Yucatanese take leaf decoction (8 g/160 cc water) as gargle for sores in mouth and throat (JFM).

**Downsides:**

Roots reportedly toxic (JFM). Animals feeding on the plant may experience severe but not fatal gastroenteritis (DLZ). "The plant is poisonous to stock. The leaves contain hydrocyanic acid" (WO2). Morton quotes Mexicans, saying that 4 g leaf can cause abortion (JFM); pregnant women should avoid the bark which can cause abortion (EGG). As of July 2007, the FDA Poisonous Plant Database listed 15 titles alluding to toxicity of this species.

**Extracts:**

Ethanollic dry fruit extract antimicrobial (X16730921). Flavonoids 5,7-dimethoxyflavanone, 5,7-dimethoxy-3',4'-methylenedioxyflavanone, isobonducellin, 2'-hydroxy-2,3,4',6'-tetramethoxychalcone, and bonducellin significantly and dose-dependently inhibited



inflammatory mediators, nitric oxide (NO), and cytokines (tumor necrosis factor (TNF)-alpha and interleukin (IL)-12) (X15893896). Two cassane-furanoditerpenoids from root extract, 6 beta-benzoyl-7 beta-hydroxyvouacapen-5 alpha-ol (1) and 6 beta-cinnamoyl-7beta-hydroxyvouacapen-5 alpha-ol (2), cytotoxic for KB (human oral carcinoid cancer), BC (human breast cancer), and NCI-H187 (small cell lung cancer) cell lines; compound (2) exhibited strong antitubercular activity (MIC = 6.25 µg/ml) (X14531033). Aqueous extract and its quercetin possess broad-spectrum antiviral activity (HSV-1, HSV-2, ADV-3, ADV-8, ADV-11); for ADV-8: fruit and seed (EC50 = 41.2 mg/l, SI = 83.2), stem and leaf (EC50 = 61.8 mg/l, SI = 52.1) and flower (EC50 = 177.9 mg/l, SI = 15.5), quercetin had strongest anti-ADV-3 activity (EC50 = 24.3 mg/l, SI = 20.4) (X12837746). Cassane-type furanoditerpenoids, from the leaves, active against *S. aureus*, *E. coli*, *P. aeruginosa*, and *B. subtilis*, and *C. albicans* and *T. mentagrophytes* (X12193012).

### HEART OF JESUS (*Caladium bicolor* (Aiton) Vent.) +

#### ARACEAE



#### Illustrations:

p 34 (MPB)

#### Synonyms:

*Arum bicolor* Aiton (basonym); *Caladium × hortulanum* Birdsey; fide (USN).

#### Common Names:

Ara (Brazil; MPB); Cai Ye Yu (China; POR); Caladio (Brazil; MPB); Caladium (USN); Cananga (Dor.; AVP); Chou Crayove (Creole; GMJ); Coeur Saignant (Haiti; AVP); Common Caladium (Eng; POR); Corazon de Cabrito (Cuba; AVP); Corazon de Jesus (Col.; Cr.; Peru; Sp.; AVP; LOR; MDD); Corazon Sangriento (Bel.; BNA); Dog's Ear (Eng.; DAV); Elephant's Ear (Eng.; USN); Fancy-Leaf Caladium (Eng.; POR; USN); Fancy-Leaved Elephant's-Ear (Eng.; POR); Heart-of-Jesus (Eng.; POR; USN); Hua Ye Yu (China; POR); Jesus Heart (Eng.; DAV); Mangara (Brazil; MPB); Masas (Palikur; GMJ); Mo Lan (Galibi; GMJ); Oreja de Perro (Peru; Sp.; LOR; SOU); Paleitte de Peintre (Fr.; GMJ); Paleta del Pintor (Pr.; AVP); Pataquina (Peru; SOU); Pavoncito (Bol.; DLZ); Sachapaico (Peru; SOU); Sillku (Que.; DLZ); Sou Crayove (Creole; GMJ); Taja (Brazil; Por.; GMJ; MPB); Tasha (Peru; SOU); Taya (Wayãpi; GMJ); Tinhorão (Brazil; Por.; AVP; MPB; USN); Tinhorao Papagaio (Brazil; AVP); Tu Lal La (Galibi; GMJ); Ushu (Peru; SOU); Wu Cai Yu (China; POR).

**Activities:**

Abortifacient (f; DLZ); Anthelmintic (f; MPB); Antiseptic (f; CRC); Ascaricide (f; CRC); Emetic (f; CRC; MPB); Febrifuge (f; RAR); Insecticide (f; CRC); Larvicide (f; CRC); Purgative (f; CRC; MPB); Vulnerary (f; MPB).

**Indications:**

Angina (f; CRC); Ascariasis (f; CRC); Catarrh (f; CRC); Fever (f; RAR); Infection f; CRC); Paralysis (f; WO3); Snake Bite (f; DLZ); Sores (f; CRC); Sore Throat (f; CRC); Splinters (f; CRC); Toothache (f; CRC); Worms (f; MPB); Wounds (f; CRC; MPB).

**Dosages:**

FNFF = ! Cooked leaves and tuber eaten (TAN). Crushed bulb or rhizome applied to facial paralysis (WO3).

- Brazilians heat leaves, coat with olive oil, and apply to tumors (MPB).

**Downsides:**

“Contains irritant crystals of calcium oxalate and can cause dermatosis” (CRC). As of July 2007, the FDA Poisonous Plant Database listed 21 titles alluding to toxicity of this species.

**SWEET CORNROOT (*Calathea allouia* (Aubl.) Lindl.) ++****MARANTACEAE****Illustrations:**

fig 42 (DAV)

**Synonyms:**

*Calathea cylindrica* K. Schum.; *C. grandifolia* Lindl.; *C. macrosepala* K. Schum.; *C. violacea* Lindl.; *Curcuma americana* Lam.; *Maranta allouia* Aubl. (basionym); *M. clavata* Vell.; *M. cylindrica* A. Dietr.; *M. grandifolia* A. Dietr.; *M. semperflorens* Horan.; *Phrynium allouya* Roscoe; *P. cylindricum* Roscoe; *P. grandifolium* Sweet; *P. longifolium* K. Koch; *P. violaceum* Roscoe; *Phyllodes allouia* Kuntze; *P. cylindricum* Kuntze; fide (POR; USN).

**Common Names:**

Agua Bendita (Sp.; Ven.; POR); Alleluia (Sp.; USN); Alleluya (Fr.; POR); Alluia (Car.; RAR); Ariá (Brazil; Por.; POR); Bijagua (Cr.; Sp.; POR; USN); Bijao (Pan.; Sp.; IED; POR); Casupo (Ven.; AVP); Churubi (Cashibo; RAR); Cocurito (Sp.; Ven.; POR); Cúrcuma (Sp.; POR); Curcuma d'Amérique (Fr.; POR); Dale Dale (Peru; Sp.; LOR; MDD; POR); Dalidali (Peru; RAR); Faldita Morado (Pan.; Sp.; IED; POR); Galence a Racines Tubereuses (Guad.; Mart.; AVP); Guapo (Sp.; POR); Guinea Arrowroot (Eng.; POR; USN); Guinea-Korbmaranthe (Ger.; USN); Irwa (Cuna; IED); Kakiska (Cuna; IED); Láirem (Brazil; Por.; POR); Lairén (Col.; Sp.; Ven.; AVP; POR); Leren (Dor.; Eng.; AVP; USN); Lerén (Pr.; Sp.; AVP; POR; USN); Lerenes (Pr.; Sp.; POR); Lleren (Cuba; AVP); Llerén (Sp.; POR); Maranta (Sp.; POR); Marosa (Fr.; POR); Oeroewa (Sur.; AVP); Plantamillo (Sp.; USN); Plantanillo (Sp.; POR); Pomme de Terre Topi (Haiti; AVP); Rizomas de Ariá (Sp.; POR); Sagú (Sp.; POR); Sal (Pan.; IED); Sio (Conibo; Shipibo; RAR); Sweet Corn Root (Eng.; DAV; FAC); Sweet Corn-Tuber (Eng.; USN); Tambu (Sp.; POR); Topi (Haiti; AVP); Topimampur (Peru; RAR); Topinambour (Fr.; Haiti; AVP; POR; USN); Topinambour Blanc (Fr.; USN); Topinambour des Antilles (Fr.; POR); Topitambo (Sp.; FAC; POR); Topitambu (Trin.; AVP); Yerén (Cuba; POR); Yuquilla (Guat.; POR).

**Activities:**

Antiscrofula (f; RAR); Tonic (f; RAR).

**Indications:**

Scrofula (f; RAR).

**Dosages:**

FNFF = ! The tubers and young flower heads are eaten cooked; the leaves are used for wrapping food, as "jungle wax paper," and judging from the name "sal," may impart some flavor (FAC; IED; TAN).

**ZACATECHICHI (*Calea ternifolia* Kunth) +  
ASTERACEAE**

**Illustrations:**

p 347 (MAX)

**Synonyms:**

*Aschenbornia heteropoda* Schauer; *Calea zacatechichi* Schltdl.; fide (AH2; HOC).

**Notes:**

Hocking (1997) mentions one unusual attribute: "to remove scorpions."

**Common Names:**

Amargosa (Ma.; JFM); Bejuco Chismuyo (Ma.; Sal.; JFM; PCS); Bitter Grass (Eng.; CR2; USN); Canilla de Zanate (Ma.; JFM); Dog's Grass (Eng.; CR2; USN); Falso Simonillo (Ma.; Sal.; JFM; PCS); Herba Athanaxiae Amarae (Ma.; JFM); Herba de la Paloma (Ma.; JFM); Juralillo (Ma.; Sal.; JFM; PCS); Mexican Calea (Eng.; CR2; USN); Oreja de Conejo (Ma.; JFM); Sacachichic (Ma.; JFM); Sacatechichi (Ma.; Nahuatl; JFM; PCS); Simonillo (Ma.; Sal.; JFM; PCS); Thle Pela Kano (Ma.; JFM); Tzicin (Ma.; JFM; PCS); Vara Blanca (Ma.; JFM); Vara Negra (Ma.; JFM); Xicin (Maya; Mex.; JFM; PCS); Xikin (Ma.; JFM); Yaxhatz (Bel.; BNA); Zacachichi (Ma.; Nahuatl; JFM; PCS); Zacachichic (Nahuatl; PCS); Zacate Amargo (Ma.; Sal.; JFM; PCS); Zacatechi (Nahuatl; PCS); Zacatechichi (Eng.; Scn.; AH2); Zacate de Perro (Ma.; JFM).

**Activities:**

Antiatherogenic (f1; CRC; JFM); Antidiabetic (f1; X1308793); Antiinflammatory (1; X12434549); Aperitive (f; CRC); Astringent (f; CRC; MAX); Bitter (1; HOC; JFM); CNS-Depressant (1; JFM); Emetic (f; CRC; JFM); Febrifuge (f; CRC); Hallucinogenic (f; CRC; HOC); Hypoglycemic (1; X1308793); NF-kappaB-Inhibitor (1; X9013864); Oneirogenic (f; X3821139); Purgative (f1; CRC; JFM; MAX); Stomachic (f; CRC; JFM); Tranquilizer (f; JFM).

**Indications:**

Anorexia (f; CRC; JFM); Atherosclerosis (f1; CRC; JFM); Bilioussness (f; JFM); Cholecystitis (f; CRC); Cholera (f; CRC; JFM; PCS); Colic (f; CRC; JFM; MAX); CNS Depression (f; CRC); Dermatitis (f; JFM); Diabetes (f1; X1308793); Diarrhea (f; CRC); Dyspepsia (f; HOC); Eruptions (f; CRC; JFM); Fever (f; CRC; JFM); Gastrosis (f; PCS); Hyperglycemia (1; X1308793); Inappetence (f; CRC); Inflammation (1; X12434549); Malaria (f; CRC; HOC; MAX; PCS).

**Dosages:**

FNFF = ?

- Brazilians use to treat cholera (JFM).
- Chontal Indians, Oaxaca sip leaf tea, then lie down and smoke dried leaves, to evoke tranquility wherein one hears one's heart and pulse, the well-being persisting a day or more (JFM).

- Mexicans use the astringent bitter decoction as antibilious, appetitive, and stomachic (JFM), for cholera and gastrostis; disappointed that its antimalarial fame is undeserved (MAX; PCS).
- Yucatanese add crushed leaves to bath to relive skin eruptions (JFM).

**Downsides:**

“Listed as a narcotic hallucinogen (mostly visual)” (CRC). As of July 2007, the FDA Poisonous Plant Database listed six titles alluding to toxicity of this species.

**JUANISLAMA (*Calea urticifolia* (Mill.) DC.) +  
ASTERACEAE**

**Synonyms:**

*Calea axillaris* var. *urticifolia* Rob. & Greenm.; *Caleacte urticifolia* R. Br.; *Solidago urticifolia* Miller; fide (PCS).

**Common Names:**

Amargosa (Hon.; MPG); Chichilsaca (Hon.; MPG); Chichiquizo (Mex.; PCS); Chirivito (Hon.; MPG); Hierba de la Paloma (Mex.; PCS); Hierba de la Rabia (Mex.; PCS); Hoja Amargo (Mex.; PCS); Hoja de Empacho (Hon.; MPG); Jalacate (Cr.; PCS); Juanislama (Ecu.; Sal.; MPG); Pashcuane (Mex.; PCS); Quinina (Mex.; PCS); Raiz de Empacho (Hon.; MPG); Tacote (Mex.; PCS). (Nscn).

**Activities:**

Antiseptic (1; MPG); Antitumor (1; X15699578); Apoptotic (1; X15699578); Bactericide (1; MPG); Cytotoxic (1; X15541738; X15699578).

**Indications:**

Bacteria (1; MPG); Cancer (f1; MPG; X15541738; X15699578); Colic (f; MPG); Diabetes (f; MPG); Diarrhea (f; MPG); *Escherichia* (1; MPG); Gastrostis (f; MPG); Hyperacidity (f; MPG); Infection (f1; MPG); Sores (f; MPG); *Staphylococcus* (1; MPG); Stomachache (f; MPG); Tumors (f1; MPG; X15541738; X15699578); Wounds (f; MPG).

**Dosages:**

FNFF = ?

**Extracts:**

Germacranolides inhibited adipogenesis (1.25–5  $\mu$ M) (X16377913). The germacranolide arucanolide induced marked apoptosis in human tumor cell lines HL60 and SW480 cells (X15699578).

**BOBINSANA (*Calliandra angustifolia* Spruce ex Benth.) +  
MIMOSACEAE**

**Synonyms:**

*Calliandra sodiroi* Harms; *C. stricta* Rusby; *C. subnervosa* Benth.; *Feuilleea angustifolia*; fide (RA2).

**Common Names:**

Bobinsana (RA2); Bobinzana (RA2); Balata (RA2); Bobensana (RA2); Bubinianal (RA2); Bubinsana (RA2); Bushiglla (RA2); Capabo (RA2); Chiperocigana (RA2); Kopnipi (Piro; Yine; MD2); Koprupi (RA2); Kori-Sacha (Que.; MD2; RA2); Kuantí (Matsigenka; MD2; RA2);

Neweí (Amahuaca; MD2; RA2); Quinilla Blanca (RA2); Semein (Shipibo/Conibo; MD2; RA2); Sháwi (Ese'èja; MD2; RA2); Yacu Yutzu (RA2); Yopoyo (Huachipaeri; MD2; RA2).

#### Activities:

Antiarthritic (f; RA2); Anticancer (f; RA2); Anticancer, uterine (f; RA2); Antiinflammatory (f1; RA2); Antirheumatic (f; RA2); Contraceptive (f; RA2); COX-1-Inhibitor (1; RA2); Depurative (f; RA2); Stimulant (f; RA2); Tonic (f; RA2).

#### Indications:

Arthritis (f; MD2; RA2); Bone Ache (f; MD2); Cancer (f; RA2); Cancer, uterine (f; RA2); Colds (f; MD2; RA2); Fatigue (f; RA2); Flu (f; MD2; RA2); Inflammation (f1; RA2); Rheumatism (f; MD2; RA2).

#### Dosages:

FNFF = ! 2–5 ml bark/root tincture 2×/day (RA2); 1 cup bark/root decoction 2×/day (RA2). Also used as an ingredient in various ayahuasca, though not itself a hallucinogen, it is considered a “plant teacher” that aids shamans in their spiritual connection (RA2).

- Peruvians consider as antiinflammatory, antirheumatic, contraceptive, depurative, stimulant, and tonic, taking the bark decoction for dyspnea (RA2).
- Peruvians suggest the root decoction as a depurative and for uterine cancer or uterine disorders (RA2).
- Peruvians use grated bark in baths to resist cold and chills and to increase resistance to illness (RA2).
- Peruvians use the bark tincture, prepared with aguardiente, for arthritis, bone pain, colds, edema, and rheumatism (RA2).
- Peruvians use the plant decoction (leaves, stems, twigs) as a general energizing tonic (RA2).
- Rio Pastaza Indians consider as stimulant, taking the root decoction for energy and strength (RA2).
- Shipibo-Conibo Indians use the bark tincture for arthritis, colds, edema, rheumatism, and uterine disorders (RA2).

#### Downsides:

No known drug interactions (RA2). Considered contraceptive; should be avoided if seeking to become pregnant (RA2).

#### Extracts:

The resinous gum sometimes sold commercially (RA2). Extract inhibited COX-1 prostaglandin biosynthesis (RA2).

### MARIA (*Calophyllum brasiliense* Cambess.) +

#### CLUSIACEAE



**Illustrations:**

fig 161 (L&amp;W)

**Synonyms:**

*Calophyllum antillarum* Britton.; *C. brasiliense* var. *antillarum* (Britton) Standl.; *C. calaba* Jacq. non L.; *C. jacquini* Fawc. & Rendle; *C. lucidum* Benth.

**Notes:**

Foresters Little and Wadsworth (1964) suggest a conservative broad taxonomic view, hinting that the many geographic varieties, sometimes treated as species, are widely distributed through the West Indies and from Mexico to Peru, Bolivia, Brazil, and Guianas. Like African and Asian species of the genus, this species is also being explored for anticancer and anti-HIV activities.

**Common Names:**

Aca (Por.; AVP); Acareuba (Peru; EGG; RAR); Aceite de María (Peru; Trin.; AVP; EGG; RAR); Aceite María (Pr.; L&W); Alfaro (Peru; EGG; RAR); Ararí (Par.; AVP); Arbol María (Mex.; Sp.; USN); Bálsamaría (Bol.; AVP); Bálsamo de María (Cuba; RyM); Bará (Mex.; AVP); Baré (Mex.; AVP); Baría (Dor.; L&W); Barillo (Sal.; L&W); Bastard Mamey (Eng.; Jam.; AVP; VOD); Baume Vert (Guad.; Mart.; AVP); Bella María (Ecu.; Sp.; USN); Bois Marie (Haiti; AHL); Brazil Beauty Leaf (Eng.; L&W); Bwa Marie (Creole; Haiti; VOD); Cachicamo (Ven.; EGG; L&W; RAR); Calaba (Guad.; Pan.; AVP; L&W); Calaba Tree (Eng.; AVP; VOD); Calabe à Fruits Ronds (Haiti; AVP); Calab des Antilles (Creole; Haiti; VOD); Calabra (Cuba; AVP); Came Marie (Haiti; L&W); Caspi Blanco (Peru; EGG; RAR); Cedro (Peru; EGG; RAR); Cedro do Pântano (Brazil; Por.; USN); Chanxoztoo (Amahuaca; Peru; EGG; RAR); Chijole Caoba (Col.; AVP); Cojón (Ven.; AVP; L&W); Dale Marie (Haiti; AVP; L&W); Dalmagre (Haiti; AHL); Dalmari (Creole; Haiti; AHL; VOD); Damage (Haiti; AHL; L&W); Damarie (Haiti; AHL); Dame Marie (Creole; Haiti; VOD); Dammari (Creole; Haiti; VOD); False Mamey (Vi.; L&W); Galandim (Brazil; Por.; USN); Galba (Guad.; Mart.; Trin.; AVP; L&W); Galba des Antilles (Haiti; AVP); Galba Odorant (Guad.; L&W); Guanandi (Brazil; Por.; L&W; MPB; USN); Guanandi-Carvalho (Brazil; Por.; USN); Guanandi Cedro (Brazil; MPB); Guandi (Brazil; MPB); Guandi-Carvalho (Brazil; Por.; USN); Guandi Cedro (Brazil; MPB); Inujihui (Shipibo/Conibo; EGG; RAR); Jacare Úba (Brazil; Peru; EGG; L&W; MPB); Jacareúba (Por.; USN); Jomo Nocco (Culina; EGG; RAR); Koelarie (Sur.; L&W); Koerahara (Sur.; L&W); Lagarto (Sp.; USN); Lagarto Caspi (Peru; EGG; RAR); Lagarto Caspi Blanco (Peru; EGG; L&W); Lagarto Caspi de Altura (Peru; EGG; RAR); Lagarto Caspi de Bajo (Peru; EGG; RAR); Landi (Brazil; Por.; L&W; USN); Landim (Brazil; Por.; MPB; USN); Leche María (Mex.; AVP); Malagueta (Dor.; AHL); Mangue (Brazil; Por.; USN); Mani Kwaha (Sur.; L&W); Mara (Dor.; AHL; L&W); Maria (Eng.; USN); María (Pr.; Sp.; AVP; EGG; L&W); María Colorado (Cr.; AVP); Marío (Sal.; L&W); Ocú (Mex.; AVP); Ocuje (Cuba; RyM); Ocuje Colorado (Cuba; L&W); Olandi (Brazil; L&W; MPB); Olandim (Brazil; Por.; USN); Palo de María (Pr.; L&W); Palo María (Sp.; Ven.; USN); Santa María (Bel.; Cr.; Eng.; Guat.; Pr.; AVP; BNA; EGG; L&W; USN); Shirimpita (Ashaninka; EGG; RAR); Uá-Iandi (Brazil; MPB); Varillo (Sal.; AVP); Varío (Sal.; L&W); Wild Calabash (Br. Guy.; Eng.; AVP; VOD); Wild Mamee (Jam.; L&W). (Nscn; American entries dia-critically prepared).

**Activities:**

ACE-Inhibitor (1; X17513067); Analgesic (f1; X11677868; X15587592); Anticancer (1; X16805958; X17346903; X17524238); AntiHIV (1; X15340243); Antiinflammatory (f; X15587592); Antileishmanic (1; X17483964); Antileukemic (1; X16805958); Antineo-

plastic (1; X17524238); Antiproliferant (1; X17524238); Antiseptic (f1; X15540598); Antispasmodic (1; X15946599); Antitumor (f1; MPB; X16805958; X17524238); Apoptotic (1; X15386357; X16805958; X17524238); Astringent (f; AHL); Bactericide (1; X15540598; X15707768); Caspase-Inducer (1; X15386357); Chemopreventive (1; X17524238); Cicatrizing (f; AHL); Cytotoxic (1; X15261767; X17346903; X17524238); Digestive (f; AHL); Fungicide (1; X17524238); Gastroprotective (f1; X16314059); Gram(+)-icide (1; X15540598); Pectoral (f; AHL); Sudorific (f; VOD); Tonic (f; AHL); Vulnerary (f; EGG; RAR).

### Indications:

Abscesses (f; VOD); Adenopathy (f; VOD); *Bacillus* (1; X15261767); Bacteria (1; X15540598; X15707768); Burns (f; VOD); Cancer (f1; MPB; X16805958; X17346903; X17524238); Catarrh (f; AHL); Coughs (f; VOD); Dermatoses (f; SOU; VOD); Diabetes (f; MPB); Flu (f; DAW); Fracture (f; EGG); Fungus (1; X17524238); Gastroses (f1; X16314059); Hepatoses (f; VOD); Hernia (f; EGG; RAR; VOD); Herpes (f; EGG; RAR; SOU); HIV (1; X15340243); Infection (f1; VOD; X15540598; X15707768; X17524238); Inflammation (f; X15587592); Itch (f; VOD); *Leishmania* (1; X17483964); Leukemia (1; X15386357; X16805958); Leukorrhoea (f; DAW); Pain (f1; X11677868; X15587592); Pulmonosis (f; AHL); Rheumatism (f; EGG; RAR); Spasms (1; X15946599); *Staphylococcus* (1; X15261767; X15707768); Swelling (f; VOD); Tuberculosis (f; VOD); Tumors (f1; MPB; X16805958; X17524238); Viruses (f1; EGG; RAR; SOU; X15340243); Wounds (f; AHL; EGG; RAR).

### Dosages:

FNFF = ! Fruits barely edible (EGG).

- Brazilians take bark a/o leaf for diabetes, though studies reveal no hypoglycemic activity (MPB).
- Brazilians use the astringent resin on rheumatism, sores, tendons, and tumors (MPB).
- Dominicans use the resin for hernias, sores, and wounds (AHL).
- Haitians apply the latex or sticky terminal bud to abscesses, burns, hernia, and swollen glands (VOD).
- Haitians make a lotion for dermatitis, itch, and skin infections (VOD).
- Haitians take the leaf decoction for cough, hepatitis, and tuberculosis (VOD).
- Haitians use the astringent flowers for pulmonary catarrh (AHL).
- Peruvians plaster the resin on blows, fractures, and hernias (VOD).
- Peruvians use the seed oil as antirheumatic and vulnerary (VOD).

### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

### Extracts:

The gum/resin from the bark, "balsamo de jacareúba," is frequently used in local medicine. Wood contains xanthenes (MPB). Coumarins from *C. brasiliense* induced apoptosis and necrosis in BMK cells, reducing experimental tumors in 83% (X17524238). The coumarin (-)-mammaea A/BB, from leaf extract, leishmanicidal for promastigote and amastigote forms of *L. amazonensis* (IC(50) = 3.0 and 0.88 µg/ml; IC(90) = 5.0 and 2.3 µg/ml) (X17483964). Coumarins calophyllolide and mammaea B/BB apoptotic in HL-60 cell lines (X16805958). Methanolic extract antispasmodic on guinea-pig ileum and rat duodenum (X15946599). Plant extract highly active against *Staphylococcus aureus* (X15707768).

**CAPIRONA (*Calycophyllum spruceanum* (Benth.) Hook. f. ex K. Schum.) ++****RUBIACEAE****Illustrations:**

fig 48 (DAV)

**Synonyms:***Eukylista spruceana* Benth. (RA2).**Notes:**

This species is indigenous to the Amazon basin in Bolivia, Brazil, Ecuador, and Peru. Brazilians call it “mulateiro” or “pau-mulato,” Peruvians call it “capirona” (RA2). Due to its beneficial effects to the skin, it is used as an ingredient in natural cosmetics in Peru and Brazil, and has also been approved for use in cosmetics in the European Union (RA2).

**Common Names:**

Ashi (Cashibo; Peru; EGG; RAI); Asho (Conibo/Shipibo; Peru; EGG; RAI); Capirona (Peru; DAV; RAI); Capirona de Bajo (Peru; RAI); Capirona Negra (Peru; RAI); Capirona Negra de Altura (Peru; EGG); Corusicao (Ma.; RAI); Escorrega-Macaco (RA2); Firewood Tree (RA2); Guayabochi (Bol.; Guarayo; DLZ); Haxo (Amahuaca; Peru; RAI); Huiso Asho (RA2); Huiso Asho Nahui (Conibo/Shipibo; Peru; EGG; RAI); Mulateiro (Brazil; RAI); Mulateiro-da-Várzea (RA2); Nahua (Ma.; RAI); Naked Tree (RA2); Oquiyurrubis (Bol.; Chiquitano; DLZ); Palo Blanco (Bol.; DLZ); Palo Mulato (Peru; RAI); Pau-Marfim (RA2); Pau Mulato (Brazil; RAI); Pau-Mulato-da-Várzea (RA2); Uhuachaunin (Aguaruno; Peru; EGG; RAI); Urayepiru (Chiriguano). (Nscn).

**Activities:**

Antiaging (f; RAI); Antidiabetic (f; RA2); Antioxidant (f1; RAI; RA2); Antiseptic (f1; 60P; RAI); Antitrypanosomic (1; RA2; X12943773); Antiwrinkle (f; RA2); Astringent (f; RA2); Bactericide (f1; RAI); Candidicide (f1; RA2); Cicatrizant (f; EGG); Contraceptive (f; DAV; EGG; RAI); Emollient (f; DAV; RA2); Fungicide (f1; RA2); Hemostat (f; EGG); Insecticide (f1; RA2); Insectifuge (1; RAI); Parasiticide (f1; RA2); Repellent (f1; RA2); Stimulant (f; 60P); Vulnerary (f; DAV; EGG; 60P).

**Indications:**

Abscesses (f; EGG); Acariasis (f; DAV; SAR); Age Spots (f; RA2); Aging (f; RA2); Bacteria (f1; RA2); Bleeding (f; EGG; RA2); Bruises (f; RAI); Bugbites (f1; RA2); Burns (f; RAI); *Candida* (f1; RA2); Conjunctivitis (f; EGG); Dermatitis (f; SAR); Diabetes (f; RA2; RVM); Fibroma (f; EGG); Freckles (f; RA2; SAR); Fungus (f1; RA2); Infection (f1; 60P; RAI; SAR); Mycosis (f; SAR); Parasites (f; RA2); Scabies (f; RAI); Scars (f; RA2); Snake Bite (f; EGG); Sores (f; EGG); Swelling (f; EGG); Trypanosoma (1; RA2; X12943773); Tumors (f; EGG); Uterosis (f; EGG); Wounds (f; DAV; EGG; RA2; 60P); Wrinkles (f; EGG; RA2); Yeast (f1; RA2).

**Dosages:**

FNFF = ? ½ –1 cup bark decoction 2–3x/day as bactericide and to stop bleeding (RA2); bark decoction applied topically for fungus (RA2).

- Amazonians apply bark tea to their bodies after bathing, then sun-dry, to protect from aging, fungus, and parasites (RA2).
- Amazonians consider the bark antifungal, contraceptive, emollient, vulnerary, and wound healing, applying bark poultice to burns, cuts, and wounds, using powdered bark for fungal skin infections (RA2).



- Amazonians take bark decoction for diabetes, boiling 1 kg of bark/10 liters water reducing to 4 liters, drinking 5 oz/day/3 weeks (RA2).
- Bolivian Chacobo mix pulverized bark with water and poultice on wounds as antiseptic and vulnerary (60P).
- Brazilians consider antioxidant and cosmetic, using for dermatoses, applying bark poultice to skin fungus and parasites, and to wounds (RA2).
- Brazilians use the bark infusion to treat diabetes, eye infection, and ovarian disorders; applying topically to age spots, scars, and wrinkles (RA2).
- Ecuadorian Quechua consider bark stimulant (60P).
- Paraguayans use for diabetes (RA2).
- Peruvians apply powdered bark to fungal infections (RA2).
- Peruvians apply the bark decoction or infusion topically for bruises, eye infection, bugbites, dermatosis, pellagra worms, scars, skin pigmentations, swelling, wrinkles, wounds, and to cuts to stop bleeding; as a poultice to fibromas and skin tumors (RA2).
- Peruvians boil 1 kg of bark in 10 liters of water reducing to 4 liters, taking 150 ml 3×/day 3 months for diabetes (RVM).
- Peruvians douche with bark infusion for vaginal infections (RA2).
- Peruvians suggest for abscesses, aging, bleeding, bruises, bugbites, contraception, dermatosis, diabetes, fibroma, infections, mycoses, ocular infection, scabies, scars, snake bite, swellings, tumor, uteroses, wrinkles, and wounds (DAV; EGG; RAI).
- Peruvians take bark decoction or infusion internally for diabetes, malaria, ovarian cancer a/o disorders, uterine cancer, as a contraceptive, and as a tonic for cancer and hepatoses (RA2).
- Peruvians use the bark against “sarna negra,” a parasite that lives under the skin; applying powdered bark to mycoses (RA2; SAR).
- Peruvians use the resin to treat abscesses and skin tumors (RA2).

#### Downsides:

None known (RA2). As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

#### Extracts:

Antifungal *in vitro* against 11 skin fungi and yeasts. The bark contains a great deal of tannins, with astringent a/o drying effects, and high amounts of organic acids and phenols, with bactericide, fungicide, and insecticide activity (RA2). Phenols strongly antioxidant, possibly explaining its use to stop skin aging (RA2). Three seco-iridoids, 6'-O-acetyldiderroside, 7-Methoxydiderroside, diderroside, and secoxyloganin, showed *in vitro* activity against trypanostigote forms of *Trypanosoma cruzi* (IC<sub>50</sub>) = 59.0, 90.2, 74.2, and 84.9 µg/ml, respectively) (RA2; X12943773).

### HUACAPURANA (*Campsiandra comosa* Benth.) +

#### CAESALPINIACEAE

#### Synonyms:

*Campsiandra laurifolia* Benth.

#### Common Names:

Acapu de Igapo (Brazil; MPB); Acapurana (Brazil; MPB; RAR); Amanagwe (Makuna; SAR); Caacapoc (Brazil; MPB); Chigo (Ven.; PUB); Comanda Assu (Brazil; SAR); Cumanda (Bra-

zil; MPB); Gapo (Peru; SOU); Huacapurana (Peru; Sp.; LOR); Pampa Huacapurana (Peru; Sp.; LOR).

#### Activities:

Antimalarial (f; RAR); Antirheumatic (f; RAR); Tonic (f; MPB); Vulnerary (f; DAV; SAR).

#### Indications:

Arthrosis (f; RAR); Fever (f; MPB); Infection (f; SAR); Malaria (f; SAR); Rheumatism (f; RAR); Sores (f; MPB); Stomatosis (f; SAR); Wounds (f; DAV; SAR).

#### Dosages:

FNFF = ! "Chiga" flour made from the seeds consumed in the Orinoco basin (X6544060; X6544061). Fruits with salt and vinegar used for cleaning infections (SAR); tincture for cleaning sores and malarial fevers (MPB)

- Witoto use powdered bark in treating wounds (SAR).

#### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

## SWORDBEAN (*Canavalia ensiformis* (L.) DC.) +

### FABACEAE

#### Synonyms:

*Canavalia ensiformis* (DC.) Makino; *C. ensiformis* (L.) DC. var. *leucosperma* Voigt; *C. ensiformis* var. *truncata* Ricker; *C. gladiata* DC. var. *ensiformis* DC.; *Dolichos ensiformis* L. (basinonym); fide (POR; USN).

#### Common Names:

Abai (Mar.; KAB); Abao (Guj.; NAD); Abayee (Mar.; NAD); Abono Negro (Sal.; AVP); Adavitamma (Tel.; KAB); Ankuwara (Aym.; DLZ); Asishimbi (Sanskrit; KAB); Bai Dao Dou (China; POR); Barankachi (Housa; KAB); Burrashim (Dec.; KAB); Burujume (Bol.; DLZ); Canavali (Creole; Haiti; VOD); Canavalia (Pr.; AVP); Chickasaw Lima (Eng.; FAC); Chilipuca Montes (Sal.; AVP); Chui (Ai.; Sa; EGG; RAR); Climbing Red Sword Bean (Eng.; UPW); Cut-Eye Bean (Eng.; Wi.; UPW); Da Dao Dou (China; POR); Danzago (Kano; KAB); Dao Dou (China; Pin.; DAA; POR); Diko (Sudan; AVP); Fâsûlyâ Seyfiyah (Arab.; POR); Fava-Branca (Brazil; Por.; USN); Feijão-Bravo (Brazil; Por.; USN); Feijao Cutelo (Por.; UPW); Feijão-de-Cobra (Brazil; Por.; USN); Feijão-de-Porco (Brazil; Por.; USN); Feijao de Porco (Por.; AVP; PMC); Feijão-de-Quebranto (Brazil; Por.; USN); Feijão Espada (Por.; POR); Feijao Holandes (Por.; AVP); Fève Jacques (Fr.; POR; USN); Frejol Gigante (Sp.; EGG; RAR); Frejolón (Sp.; EGG; RAR); Frijol de Abono (Guat.; AVP); Frijol de Bibijagua (Cuba; Sp.; POR); Frijol de Machete (Cuba); Frijol de Sable (Sp.; POR); Frijol Espada (Sp.; POR; USN); Gaivara (Bom.; KAB); Galaphul (Arab.; NAD); Garabato (Bol.; DLZ); Garde Place (Haiti; AHL); Gavria (Guj.; KAB); Giant Stock Bean (Eng.; POR; USN); Gojiasema (Hindi; KAB); Gol (Arab.; NAD); Gotani-Bean (Eng.; LEG; USN); Goyjiyashivalam (Hindi; NAD); Haba (Dor.; TRA); Haba Blanca (Guat.; Mex.; Sp.; AVP; POR); Haba Criolla (Sp.; Ven.; AVP; POR); Haba de Burro (Pr.; Sp.; AVP; POR; USN); Haba de Caballo (Cuba; Mex.; Sp.; AVP; POR); Haba de Monte (Ven.; AVP); Haricot de Madagascar (Fr.; POR); Haricot Sabre (Fr.; Haiti; AVP; POR; USN); Haricot Sabre à Grain Blanc (Fr.; POR); Horse Bean (Eng.; AVP; USN; VOD); Jack Bean (Eng.; HOC; POR; USN); Jackbohne (Ger.; POR; USN); Jackbønne (Den.; POR); Jamaica Horse Bean (Eng.; HOC); Jangala; (Sakalave; KAB); Judía

Sable (Sp.; POR; USN); Kacang Parang (Malay; POR); Kachang Parang Puteh (Malaya; IHB); Kadasambal (Hindi; NAD); Kadavare (Kan.; KAB); Kanavala (Mal.; KAB); Kara Bendo (Dutch; POR); Karochikadu (Tel.; NAD); Kattuttambattan (Tam.; KAB); Kattuvallari (Tam.; NAD); Kolasimo (Oriya; KAB); Kumandu Usu (Par.; AVP); Laliko (Sudan; AVP); Machete (Cuba); Madagaskarbohne (Ger.; POR); Magtambocao (Leyte; KAB); Makam-Shim (Hindi; NAD); Makhamsim (Ben.; KAB); Mala-Shibee (Sanskrit; NAD); Mangalo (Por.; AVP); Mangolô (Brazil; Por.; USN); Mõõkjas Kanavaalia (Estonia; POR); Nescafé (Peru; EGG); Noble (Sudan; AVP); One-Eye Bean (Eng.; Wi.; UPW); Overlook Bean (Jam.; AVP; KAB); Paikalog (Burma; KAB); Pallar del Gentil (Peru; EGG); Patagonian Bean (Eng.; DEP); Pataningdagar (Tag.; KAB); Pathave (Mah.; NAD); Pois Gagane (Fr.; UPW; USN); Pois Maldioc (Haiti; AVP); Pois Sabre (Fr.; AVP; POR); Poroto Sable (Sp.; PMC); Pwa Lanme (Creole; Haiti; VOD); Pwa Maldyok (Haiti; TRA; VOD); Pwa Wouj (Creole; Haiti; VOD); Pwa Zombi (Creole; Haiti; VOD); Sabre Bean (Eng.; HOC); Sanchalli (Que.; DLZ); Schwertbohne (Ger.; POR; USN); Seaside-Bean (Eng.; USN); Sem (Nwp.; Pun.; KAB); Shembi Acare (Kan.; NAD); Shiro Nata Mame (Japan; POR); Sweeta-Sima (Hindi; NAD); Sword-Bean (Eng.; POR; USN); Tachi Nata Mame (Japan; POR; TAN); Talvardi (Porebunder; KAB); Tao Tou (China; AVP; KAB; TAN); Thamattan (Tam.; NAD); Thamna (Tel.; NAD); Tihon (San.; KAB); Tsurunachi Nata Mame (Japan; POR); Tumbe Komji (Kan.; NAD); Valvarai (Tam.; NAD); Walawala (Sin.; KAB); Wonder-Bean (Eng.; POR; USN); Yang Dao Dou (China; POR); Yatigua (Arg.; AVP); Zwaardboon (Dutch; POR).

#### Activities:

Allelochemic (1; X11382064); Amylotic (1; WO2); Analgesic (f; UPW); Antiadhesive (1; X16834597); Antiaggregant (1; TRA); Antiallergic (1; TRA); Antibilious (f; NAD); Antiherpetic (1; TRA); Antihistaminic (1; TRA); Antiinflammatory (12; TRA); Antimetabolic (1; WO2); Antioxidant (1; TRA); Antiseptic (1; DLZ); Antiviral (1; TRA); Bactericide (1; DLZ); Bechic (f; UPW); Capillariprotective (1; TRA); Demulcent (f; NAD); Fungicide (1; WO2); Hemolytic (1; WO2); Hypocholesterolemic (1; TRA); Hypotensive (1; TRA); Insecticide (f; UPW); Mitogenic (1; WO2); Stomachic (f; UPW); Tonic (f; KAB).

#### Indications:

Allergies (f1; TRA); Bacteria (1; DLZ); Biliousness (f; KAB; NAD); Burns (12; TRA); Dysuria (f; UPW); Edema (f; UPW); Female Illness (f; WBB); Fungus (1; TRA; WO2); Headache (f; UPW); Hepatosis (f; NAD); Herpes (1; TRA); High Blood Pressure (1; TRA); High Cholesterol (1; TRA); Hysteria (f; UPW); Infection (1; DLZ; TRA; WO2); Inflammation (12; TRA); Mycosis (1; TRA); Nephrosis (f; DLZ); Neuralgia (f; UPW); Pain (f; DLZ; UPW); Pneumococcus (1; DLZ); Sores (f; UPW); Swelling (f; NAD; UPW); Vertigo (f; UPW); Viruses (1; TRA).

#### Dosages:

FNFF = ! Green pods eaten before seeds swell, raw, boiled, pickled, or salted. Unripened but swollen seeds, though deemed poisonous by some, can be eaten, boiled or roasted. Seeds fermented into tempeh. Ripe seeds scorched as coffee substitute. Young leaves boiled as potherb. (FAC). Seeds food pharmacy (AHL). 5–10 g leaf poulticed onto burns (TRA).

- Asian Indians suggest powdered root in cow urine for hepatic swelling (NAD).
- Ayurvedics consider the orexigenic tonic fruits useful in biliousness, burning sensations, and sores (KAB).
- Caribs suggest covering burns with the leaves (TRA).
- Haitians apply the leaves to the head for conjunctivitis and headache (VOD).
- Haitians suggest the bean flour (in poultices) softens and resolves tumors (VOD).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed 56 titles alluding to toxicity of this species.

**EDIBLE CANNA (*Canna indica* L.) ++**

## CANNACEAE

**Illustrations:**

pl 952A (KAB)

**Synonyms:**

*Canna achiras* Gillies; *C. cinnabarina* Bouché; *C. coccinea* Mill.; *C. compacta* Roscoe; *C. edulis* Ker Gawl.; *C. esculenta* Lodd. ex Loudon; *C. humilis* Bouché; *C. indica* L. var. *limbata* (Roscoe) Petersen; *C. limbata* Roscoe; *C. lutea* Mill.; *C. lutea* Mill. var. *aurantiaca* (Roscoe) Regel; *C. lutea* Mill. var. *genuina* Kraenzl.; *C. nepalensis* Wall.; *C. orientalis* Roscoe; *C. rubricaulis* Link; *C. speciosa* Roscoe; *C. variabilis* Willd.; *C. warszewiczii* A. Dietr.; fide (POR; USN).

**Common Names:**

Achira (Col.; Peru; Sp.; EFS; POR; USN); Achira Roja (Sp.; EFS); Adeira (Sa.; SOU); African Arrowroot (Eng.; POR; USN); Akalbarki (Dec.; NAD); Albará (Brazil; Por.; POR; USN); Araruta Bastarda (Por.; POR); Araruta de Porco (Por.; POR); Araruta Gigante (Ma.; JFM); Arrowroot (Ma.; JFM); Australian Arrowroot (Eng.; WO2); Bakalele (Hausa; Nig.; POR); Bakare Kare (Hausa; Nig.; POR); Balisier à Chapelets (Car.; Fr.; POR); Balisier Comestible (Fr.; POR; USN); Balisier des Indes (Fr.; POR); Balisier Jaune (Car.; Fr.; POR); Balisier Rouge (Car.; Fr.; JFM; POR); Bananeirinha-da-Índia (Brazil; Por.; POR; USN); Bananeirinha-de-Flor (Brazil; Por.; USN); Bananeiro do Mato (Brazil; JLH); Bananerinha (Brazil; Ma.; AVP; JFM); Bandera de Uriba (Col.; Sp.; POR); Bandera Espanyol (Ma.; JFM); Beri (Brazil; Por.; USN); Bijagua (Ma.; JFM); Bijao (Ma.; JFM); Birú Manso (Brazil; Por.; POR); Budda Tharana (Burma; DEP); Butsarana (Sin.; DEP); Caeté-dos-Jardns (Brazil; Por.; USN); Caethe Vermelho (Brazil; AVP); Café Cimarron (Pan.; Sp.; POR); Caite (Brazil; JLH); Caña Comestible (Sp.; POR; USN); Cañacoro (Ma.; Sp.; EFS; JFM); Cana-da-Índia (Brazil; Por.; USN); Caña de la India (Sp.; POR); Caña de las Indias (Sp.; EFS); Cane Shot (Ma.; JFM); Canna (Bel.; Dutch; Eng.; Fr.; Ger.; EFS; POR); Canna Florifère (Fr.; POR); Canna Lily (Eng; POR); Canne d'Inde (Fr.; JFM; POR); Canne Indienne

(Fr.; EFS); Capacho (Col.; Sp.; Ven.; EFS; POR); Chankala (Ma.; JFM); Chisgua (Col.; Ma.; Sp.; AVP; JFM; POR); Chumbima (Col.; Sp.; POR); Chumbimba (Ma.; JFM); Cigarron (Dor.; AHL); Cocoyotzin (Mex.; JLH); Cucuyu (Ma.; JFM); Deva Keli (Mar.; DEP; NAD); Edible Canna (Eng.; POR; TAN; USN); English Shot (Eng.; POR); Flor de Cangrejo (Ma.; JFM); Gaane Sarvadaa (Nepal; POR); Ganjol (Sunda; IHB); Ganjong (Java; Sunda; IHB); Gruya (USN); Guri Gensa Chettu (Tel.; DEP); Hakik (Pun.; DEP; NAD); Hierba del Rosario (Sp.; EFS); Huevo de Gato (Bel.; BNA); Indian Bread Shot (Eng.; EFS); Indian Cane Flowering Reed (Eng.; EFS); Indian-Shot (Eng.; POR; TAN; USN); Indiese Kanna (Afrikaans; USN); Indisch Bloemriet (Dutch; EFS; POR); Indisches Blumenrohr (Ger.; EFS); Kadu Bale (Kan.; WO2); Kaelahu (Kan.; NAD); Kaelaphool (Kon.; NAD); Kakale (Kan.; WO2); Kalahu (Kan.; WO2); Kalvaazhai (Tam.; WO2); Kamaakshee (Sanskrit; EFS; NAD); Kana (Tur.; EFS); Kana Indika (Japan; POR); Kandamani Cheddi (Tam.; NAD); Kandamani-Yazha (Mal.; WO2); Kandamanu (Tam.; NAD); Kanna Indiiskaia (Rus.; POR); Kathshim (Ben.; NAD); Kattuvazha (Mal.; WO2); Katu Bala (Mal.; DEP); Katuvara (Mal.; NAD); Kelahu Hudingana (Kan.; DEP); Kenyong (Malaya; IHB); Kiwara (Nwp.; DEP); Krishna Tamarah (Tel.; DEP; NAD); Kudsumbar (Bom.; NAD); Kullvalei Mani (Tam.; DEP); Kundimana Cheddi (Tam.; DEP); Lal Sarbajaya (Ben.; DEP); Laos Jambe (Sumatra; IHB); Laos Mekah (Sumatra; IHB); Lembong Nyidra (Java; IHB); Maraca (Dor.; Ma.; Pr.; Sp.; AVP; JFM; POR); Maraca Cimarrona (Ma.; Pr.; AVP; JFM); Meeru (Brazil; JLH); Mei Ren Jiao (China; POR); Mettatamara (Tel.; NAD); Munay Achira (Sa.; RAR); Nplooj Nre Lab (Hmong; EB57:365); Nua Vitaax (Amahuaca; RAR); Phut Tharaksa (Thai; POR); Piriquiltallo (Ma.; JFM); Piriquitoia (Ma.; JFM); Platanilla de Cuba (Sp.; EFS); Platanillo (Ma.; Sp.; JFM; POR; USN); Platanillo de Cuba (Ma.; Sp.; JFM); Platanillo de Monte (Ma.; Sp.; JFM); Poovaazhai (Tam.; WO2); Poovalai (Tam.; NAD); Purple Arrowroot (Eng.; POR; USN; WO2); Qhau Liab (Hmong; EB57:365); Queensland Arrowroot (Aust.; Eng.; POR; USN); Rijua (Ma.; JFM); Sabbajaya (Hindi; DEP; EFS; WO2); Sagou Marron (Haiti; Ma.; AVP; JFM); Sakasira (Ma.; JFM); Sarbajaya (Ben.; DEP; WO2); Sarvajaya (Sanskrit; DEP); Senitra (Java; IHB); Sierra Leone Arrowroot (Eng.; POR; USN); Silarumba (Sanskrit; DEP); Sio (Sa.; SOU); Soogandaraju gida (Kan.; DEP); Spanish Arrowroot (Eng.; JFM); Sugandharaju (Kan.; NAD); Sumac Achira (Sa.; RAR); Tasbeh (Arab.; IHB); Toloman (Car.; Fr.; Ma.; JFM; POR); Tous-les-Mois (Car.; Fr.; EFS; POR; USN); Tozcuitlapilxochitl (Mex.; JLH); Ubi Gereda (Malaya; IHB); Ubi Pikul (Sumatra; IHB); Ulkilbar-Kimunker (Dec.; DEP); Westindisches Blumenrohr (Ger.; POR; USN); Wild Canna (Eng.; Ma.; JFM); Wild Tapioca (Eng.; Ma.; JFM); X'chi Qui Laba (Bel.; BNA); Yuquilla (Sp.; JFM; POR; USN).

### Activities:

Antiabortive (f; JFM); Antidote (f; WOI); Demulcent (f; DEP; EFS; WOI); Depurative (f; IHB); Diaphoretic (f; DEP; WOI); Diuretic (f; DEP; EFS; WOI); Emmenagogue (f; JFM); Emollient (f; JLH); HIV-RT-Inhibitor (1; X15951145); Molluscicide (1; X11050667; X15305305); Narcotic (f; NAD); Stimulant (f; DEP; JFM); Sudorific (f; EFS; DAW); Tonic (f; EB57:365); Vulnerary (f; DEP).

### Indications:

Amenorrhea (f; JFM); Bleeding (f; JFM); Cancer (f; JLH); Coughs (f; EB57:365); Cystosis (f; JFM); Dermatitis (f; JFM); Diarrhea (f; IHB); Dropsy (f; DEP; WOI); Dyspepsia (f; EB57:365); Dysuria (f; SOU); Earache (f; NAD); Fever (f; DEP; WOI); Gastrosis (f; EB57:365); Gonorrhoea (f; JFM); Headache (f; JFM); Hepatosis (f; JFM); HIV (1; X15951145); Inflammation (f; EB28:4); Nephrosis (f; JFM); Neuralgia (f; JFM); Ophthalmia (f; KAB); Pain (f; JFM); Rheumatism (f; JFM); Sores (f; JFM); Sore Throat (f; DAW); Soroche (f; SOU); Spider Bites (f; JFM); Stomachache (f; EB57:365); Uterosis (f; JFM); VD (f; JFM); Wounds (f; DEP); Yaws (f; IHB).

**Dosages:**

FNFF = !! Young tubers eaten, cooked, or used as starch source (TAN). Juice of leaves a diuretic coffee substitute (WO2). Juice of rhizome for diarrhea (IHB). Warm seed juice applied to ear for earache (NAD). 1–2 oz decoction (1:20) (NAD). For cattle having ingested poisonous grass and swollen, fragments of root boiled in rice water with pepper (NAD).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**Extracts:**

Root extract molluscicidal LC50 = 6.54 mg/l, ethanol root extract LC50 = 55.65 mg/l (X11050667; X15305305). Water extract of the rhizomes inhibited HIV-1 RT (IC50 = 22.56 µg/ml); two proteins from the extract, Cip31 and Cip14, showed significant HIV-1 RT inhibition, IC50 = 17.41 and 19.25 µg/ml, respectively (X15951145).

**PERU TEA (*Capraria biflora* L.) +  
SCROPHULARIACEAE**

**Illustrations:**

p 311 (MPB); p 176 (AAB)

**Synonyms:**

*Capraria hirsuta* HBK; *C. lanceolata* M. Vahl; *C. mexicana* Grisebach; *C. semiserrata* Willd.; *C. semiserrata* var. *berterii* (A. DC.) Benth.; fide (BAZ).

**Common Names:**

Balsamha (Brazil; MPB); Capraire (Fr.; VOD); Capraire à Deux Fleurs (Fr.; VOD); Capria de Dos Flores (Fr.; VOD); Chá Cravo (Brazil; MPB); Chá da America (Por.; AVP); Chá das Antilhas (Por.; JFM); Chá da Terra (Brazil; MPB); Chá de Boi (Brazil; MPB); Chá de Cravo (Brazil; MPB); Chá de Lima (Por.; JFM); Chá de Marajó (Brazil; MPB); Chá do Mexico (Por.; AUS; JFM); Chá Preto (Por.; AVP); Chá Promonga (Por.; AVP); Chocuil-Xiu (Maya; AVP); Claudiosa (Bel.; Mex.; AVP; BNA; JTR; MAX); Claviosa (Bel.; AAB; BNA); Coat Weed (Eng.; JTR); Cola de Caballo (Pan.; IED); Cola de Gallo (Pan.; AUS); Earache Bush (Eng.; JFM); Escabiosa (Cuba; JFM; JTR); Esclabiosa (Cuba; AVP); Esclaviosa (Sp.; JFM); Escobilla (Sp.; JFM); Escobo (Col.; JFM; JTR); Feregosa (Dor.; AHL; AVP); Fregosa (Dor.; Ven.; AVP; JTR); Goatweed (Eng.; Jam.; AUS; AVP; USN; VOD); Grannybush (Eng.; JFM); Hierba Te (Pan.; AUS; IED; USN); Jamaica Tea (Eng.; AVP; FAC); Kawissey (Palikur; GMJ); Lengua de Gallina (Mex.; AUS); Magüiro (Cuba; JFM; JTR); Majuito (Cuba; JFM; JTR); Malvavisco (Mex.; AUS); Pasma (Mex.; AUS); Pasma Wa-Xi-Uil (Bel.; AAB; BNA); Pasmoxiu (Mex.; AVP; MAX); Pericon (Sp.; JFM); Peru Tea (Eng.; JAD; SOU); Santa Maria (Dor.; AHL); Stow-Weed (Eng.; JFM); Stow-Wort (Eng.; JFM); Suisse (Dor.; AHL); Tan Chi (Bel.; AAB; AVP; BNA); Tantje (Ma.; JFM); Tantsji (Aruba; Bonaire; Curacao; AUS; JFM); Tasajo (Chiapas; AUS); Té (Dor.; Pr.; AVP); Té Chino (Peru; RAR); Té Criollo (Col.; AVP); Té de la China (Peru; RAR); Té de las Antillas (Peru; SOU); Té del Pais (Pr.; JTR; USN); Té del Peru (Peru; SOU); Té de Mexico (Peru; SOU); Té de Monte (Sp.; JFM); Té de Salud (Sp.; JFM); Te de Santa Maria (Dor.; Sp.; AVP; FAC); Té Indigen (Creole; Haiti; VOD); Té Nacional (Sp.; JFM); Té Pays (Creole; Haiti; VOD); Té Peyi (Creole; Haiti; VOD); Té Silvestre (Sp.; JFM); Thé d'Amérique (Haiti; Mart.; AVP; JTR); Thé de la Guadelupe (Guy.; AVP); Thé des Anglais (Creole; Guad.; Haiti; VOD); Thé de Santé (Guad.; Haiti; VOD); Thé des Antilles (Creole; Haiti; Mart.; AVP; VOD); Thé de

St. Domingue (His.; AHL); Thé du Mexico (Haiti; AVP); Thé du Pays (Guad.; St. Bart.; AVP); Thé Guadelupe (Creole; Wi.; GMJ); Thé Muray (Creole; Haiti; VOD); Thé Murraile (Guad.; AVP); Thé Pays (Creole; Guad.; Guy.; AVP; GMJ); Thé Suisse (Haiti; AVP); Twa Zom Fo (Creole; Haiti; VOD); Verbena (Ma.; AUS; JFM); Viuda (Cuba; JFM; JTR); West Indian Tea (Eng.; FAC); Worry Bush (Eng.; JFM). (Nscn).

### Activities:

Analgesic (f1; FT74:686); Anticancer (1; X16042338); Anticancer, breast (1; X16042338); Anticancer, colon (1; X16042338); Anticancer, skin (1; X16042338); Antiemetic (f; JFM); Antioxidant (1; X16042338); Antiseptic (f1; MPB; VOD); Antispasmodic (f; GMJ); Antitumor (1; X16042338); Bechic (f; VOD); Cholagogue (f; GMJ); CNS-Depressant (f; AUS; JFM); Collyrium (f; GMJ); Cytotoxic (f1; AAB; AUS; X16042338); Digestive (f; GMJ; MPB); Diuretic (f; AHL; JFM); Emetic (f; AHL); Emmenagogue (f; AHL); Expectorant (f; VOD); Febrifuge (f; AHL); Fungicide (f1; VOD); Hypoglycemic (f1; AUS; VOD); Hypotensive (f; VOD); Insecticide (1; JNP63:1515); Purgative (f; GMJ; VOD); Sedative (f; GMJ); Stimulant (f; MPB); Sudorific (f; JFM; JTR); Tonic (f; AHL; AUS; JFM; VOD); Vulnerary (f; JTR).

### Indications:

Alopecia (f; IED); Arthrosis (f; AAB); Bronchosis (f; JFM); Cancer (1; X16042338); Cancer, breast (1; X16042338); Cancer, colon (1; X16042338); Cancer, skin (1; X16042338); *Candida* (f; AUS); Childbirth (f; JFM); Colds (f; AUS; JFM); Colic (f; JFM); Congestion (f; AAB); Conjunctivitis (f; AUS; VOD); Coughs (f; AAB; JFM); Cramps (f; AAB; AUS; GMJ); Cystitis (f; AAB; AUS); Dermatitis (f; JFM); Diabetes (f1; AUS; IED; MAX; VOD); Diarrhea (f; AHL; JFM; JTR); Digestion (f; GMJ; JFM; MPB); Dysmenorrhea (f; AAB; AUS; JFM); Dyspepsia (f; AUS; MPB); Dysuria (f; JFM); Earache (f; VOD); Enterosis (f; VOD); Epigastrosis (f; VOD); Fever (f; AHL; JTR); Flatulence (f; JFM); Flu (f; AUS; JFM); Fungus (f1; VOD); Gas (f; AUS; JFM); Gonorrhea (f; MAX); Headache (f; GMJ); Hemorrhoids (f; AHL); High Blood Pressure (f; VOD); Hyperglycemia (f1; AUS; VOD); Infection (f1; MPB; VOD); Insomnia (f; GMJ); Leukorrhea (f; JFM; MAX); Measles (f; JFM); Nausea (f; JFM); Nephrosis (f; AAB; AUS); Ophthalmia (f; JFM; VOD); Pain (f1; AAB; FT74:686; JFM); Pulmonosis (f; VOD); Rheumatism (f; AAB); Spasms (f; GMJ); Stomachache (f; JTR; MPB); Tumors (1; X16042338); Uterosis (f; IED; JTR); VD (f; JFM; MAX); Wounds (f; AHL; JTR).

### Dosages:

FNFF = !! Dry leaves and flowers make good tea substitute (FAC). Some Dutch West Indian countrymen chew the leaves like tobacco (JFM).

- Bahamans take the plant to facilitate childbirth, using the plant juice for earache (JFM).
- Belizeans boil 2 whole plants in 2 gal water 10 min to bathe body areas affected by “pasma” (a condition of blood stagnation or congestion) (AAB).
- Belizeans sip tea (handful leaves in 3 cups water for 10 min) for arthrosis, cough, cystitis, diabetes, nephrosis, and rheumatic pain (AAB).
- Caribs use the plant for menstrual pain and female complaints (X17362507).
- Cubans use the astringent tea on wounds (AHL) and as febrifuge (JTR).
- Cubans use the tea as vaginal douche, possibly alleviating *Candida* (AUS).
- Curaçaoans give the decoction to one-week-old babies “changing skin” (JFM).
- Curaçaoans use the diuretic decoction for cold (JFM).
- Dominicans apply powdered leaf in pork lard to hemorrhoids (AHL).
- Dominicans put a branch in boiled children’s milk to prevent diarrhea (AHL).
- Dominicans use leaf decoction as a collyrium for conjunctivitis (VOD).
- Dominicans use shoot decoction with castor oil for pain in the epigastrium (VOD).
- Dominicans use shoot infusion with ginger as a purgative before worming (VOD).

- Guadelupans and Martiniquans consider the tea digestive, diuretic, febrifuge, and good for bronchitis and colds (JFM).
- Haitians drop leaf juice (2–4 drops 3×/day) for earache (VOD).
- Haitians use leaf and flower decoction or tea as expectorant in lung ailments and for high blood pressure (AHL; VOD).
- Mexicans take decoction (10 g in 300 liter water) for diarrhea, gonorrhea, hepatitis, leucorrhea, and nephrosis (JFM; MAX).
- Puerto Ricans take weak decoction for colic, dyspepsia, flatulence, and fever (JFM).
- Trinidadans take decoction for childbirth, dysmenorrhea, fever, flu, measles, and vomiting (JFM).
- Venezuelans take the astringent decoction for diarrhea and nausea (JFM).
- Yucatanese apply tea as lotion on ovarian and uterine problems (JTR; MAX).

**Downsides:**

Large doses can be stupeficient and muscularly paralytic (SOU); may cause vertigo and paralysis in overdose (MAX). As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**Extracts:**

Biflorin strongly inhibited growth of five tumor cell lines, especially breast, colon, and skin cancer, and also exhibited strong antioxidant activity (X16042338)

**CAPSICUM (*Capsicum* spp.) ++****SOLANACEAE****Illustrations:**

p 149 (CR2)

**Notes:**

The hotter ones are often *C. frutescens*, the sweeter ones *C. annuum*, but the intermediates are often confused taxonomically, e.g., Morton treats only the hot pepper as *Capsicum annuum* var. *minimum* (syn. or “often recorded as” *C. frutescens*, *C. baccatum*, or *C. frutescens* var. *baccatum* Irish) (JFM). We treat it as *C. frutescens* in our *Handbook of Medicinal Spices* (HOS).

**Common Names:**

Ahi ( Ese'eja; Sp.; AVP; MD2); Ahmur (Arab.; NAD); Ají (Peru; Sp.; AVP; LOR; MDD); Ají Agujeta (Cuba; AVP); Ají Bobito (Dor.; AHL); Ají Boniato (Dom.; AVP); Ají Bravo (Sal.; Sp.; AVP); Aji Caballero (Pr.; Sp.; AVP; JFM); Aji Caribe (Dor.; Ven.; AVP; TRA); Aji Chinchana (Sp.; SOU); Aji Chirel (Col.; Ven.; AVP); Aji Chivata (Sp.; JFM); Ajcito Montesino (Dor.; AHL); Ají Comun (Cuba; JTR); Aji de Gallina (Dor.; AHL); Ají del Salon (Dor.; Peru; AHL; JAD); Ají de Plaza (Cuba; JTR); Aji Dulce (Dor.; Sp.; Ven.; AHL; AVP); Aji Guaguao (Cuba; Sp.; AVP; JTR); Aji Largo (Peru; Sp.; AVP); Aji Limon (Sa.; RAR); Ajillo (Pan.; AVP); Ají Mono (Sp.; SOU); Ají Montaña (Sa.; RAR); Ají Montecino (Dom.; AVP); Ají Moron (Dor.; AHL); Ají Morron (Dom.; Sp.; AVP); Ají Pajarito (Col.; Sp.; AVP; JFM; JTR); Ají Picante (Pr.; Sp.; AVP; JFM); Ají Picantel (Cuba; Sp.; AVP); Ají Quinillo (Sp.; SOU); Ají Titi (Dor.; AHL); Angmak (Ulwa; ULW); Anmak (Ulwa; ULW); Ardeiu (Rom.; KAB); Arnaucho (Peru; AVP); Ati (Ca.; Garifuna; IED); Barkono (Afr.; Hausa; AVP; KAB); Beissbeere (Ger.; EFS; TAN); Bell Pepper (Eng.; FAC; VOD); Bilber (Tur.; EB54:155); Bird Chilli (Eng.; HOS); Bird Pepper (Eng.; AVP; JFM; JTR); Birosi (Raj.; NPM); Bisho (Ese'eja; MD2); Bruhi (Sanskrit; EFS; NAD); Caja (Kuna; Pan.; IED); Capsique (Fr.; BOU); Cayenne (Eng.; FAC); Cayenne Pepper



(Eng.; AVP; VOD); Chabai (Mal.; KAB; NAD); Chabai Sabrong (Malaya; EFS); Chakeai (Malaya; KAP); Chalie (Mal.; WO2); Charapilla (Sp.; SOU); Chile Bravo (Sp.; JFM); Chile Chiltepen (Mex.; AVP); Chile de Monte (Sp.; JFM); Chile de Velleno (Sal.; Sp.; AVP); Chile de Zope (Sal.; Sp.; AVP; JFM); Chile Juipin (Mex.; AVP); Chile Largo (Sal.; AVP); Chilillo (Sp.; JFM); Chili Pepper (Eng.; FAC; VOD); Chilla (Ber.; BOU); Chill Pepper (Eng.; HOS); Chilpepe (Sal.; AVP); Chilpete (Cr.; AVP); Chiltepe (Sp.; JFM); Chiltepen (Mex.; AVP); Chinche Uchu (Sa.; SOU); Chirel (Col.; Ven.; AVP; JLH); Chivato (Col.; AVP); Chojnya Huaica (Aym.; SOU); Choxnya Wayk'a (Aym.; DLZ); Chyoots (Amuesha; SOU); Conguito (Col.; AVP); Corail des Jardins (Fr.; AVP; BOU); Corallo (It.; KAB); Du (Sunwar; NPM); Fefel Ahmar (Arab.; BOU); Fefel Haar (Arab.; BOU); Fefel Helw (Arab.; BOU); Fefel Rumi (Arab.; BOU); Fefel Torshi (Arab.; BOU); Felfila (Arab.; BOU); Fibl e Abmar (Arab.; KAP); Filfile Ahmar (Iran; NAD); Filfile Ahmer (Arab.; EFS; KAB; NAD; WOI); Franchiao (China; KAP); Fulfilisurkh (Iran; KAB); Gachmaich (Ben.; KAB); Gach Mirichi (Hindi; NAD; WOI); Galakonda (Tel.; NAD); Garho Mirch (Sin.; NAD); Gasmiris (Sin.; NAD); Gnnayoke (Burma; KAB); Goat Pepper (Eng.; JFM); Golakonda (Tel.; KAB); Guindilla (Sp.; EFS); Hot Pepper (Eng.; HOS; VOD); Hov Txob Nplej (Hmong; EB57:365); Huaica (Aym.; SOU); Hugn (Huachipaeri; MD2); Ifelfel (Ber.; BOU); Ik (Maya; AVP); Iki (Cocama; SOU); Jahfilla (Ocaina; SOU); Jeeray (Sikkim; SKJ); Jhal (Ben.; Hindi; NAD); Jima (Aguaruna; SOU); Kapur (Kuna; Pan.; IED); Katuvira (Sanskrit; KAB; KAP; NAD); Kelekeke (Sudan; AVP); Khorsani (Gurung; NPM); Khursani (Danuwar; Magar; Majhi; Nepal; NPM; SUW); Khurshaney (Sikkim; SKJ); Khursya (Chepang; NPM); Kidachi Togorashi (Japan; TAN); Kirmizii Biber (Tur.; EFS); Komlu (Piro; Yine; MD2); Krasniy Peretz (Rus.; KAB); Kua Txob (Hmong; EB57:365); La Chiao (China; EFS); Lada Mutia (Malaya; EFS); Lalmarach (Urdu; KAB); Lal Mirch (Hindi; ADP; SKJ); Lalmircha (Hindi; KAB); Lalmirchi (Hindi; KAP); Lalmirichi (Ben.; NAD); Lalmoricho (Oriya; WO2); Lanka (Ben.; Sanskrit; ADP); Lanka Maric (Ben.; KAP); Lanka Marich (Ben.; NAD); Lankamirch (Ben.; SKJ); Lara (Pi.; KAB); Lavungi Mirchi (Mah.; NAD); Locoto (Sa.; SOU); Lombok (Dwi.; KAB); Lombok-peper (Dutch; EFS); Malabari (India; EFS); Malabhata (Nepal; KAP); Malagueta (Sa.; SOU); Malta (Newari; NPM); Marcha (Guj.; Tamang; NAD; NPM); Marchawangun (Kas.; WO2); Marchi (Limbu; NPM); Marchu (Guj.; NAD); Marich (Ben.; Sanskrit; ADP); Maricha (Bihar; SKJ); Marichiphalam (Sanskrit; NAD); Mattisa (Pun.; NAD); Mattisa Wangru (Kum.; NAD); Menashinakayi (Kan.; KAB; NAD; WOI); Mensina Kai (Kan.; WOI); Meris (Sin.; KAP); Milagay (Tam.; ADP; WOI); Mirapa (Tel.; ADP); Mira Pakaya (Tel.; SKJ; WOI); Mirch (Bhojpuri; Guj.; Hindi; KAB; NPM; SKJ); Mircha (Tharu; NPM); Mirchai (Mooshar; NPM); Mirchi (India; Mar.; EFS; WO2); Mirch Surkh (Iran; Yunani; KAP); Mirch Wangum (Kas.; NAD); Mirsang (Kon.; NAD); Mirsinga (Mah.; NAD); Mishqui Uchu (Que.; DLZ; SOU); Molagay (Tam.; NAD); Mulaku (Mal.; ADP; WOI); Mullagay (Tam.; KAB); Municion Uchu (Bol.; DLZ); Muragay (Tam.; SKJ); Nayop (Burma; NAD); Nayusi (Burma; KAP); Nupu Uchu (Sa.; SOU); Ôili Biberi (Tur.; EFS); O`t (Vn.; EB42:413); Paprica (Rom.; KAB); Paprika (Eng.; Hun.; FAC; KAB); Pasitis (Tag.; KAB); Pepe de Guinea (It.; EFS); Peper (Sur.; AVP); Peperone (It.; AVP; EFS); Petit Piment (Fr.; TRA); Pichirina (Sa.; SOU); Pilipili (Fr.; Swahili; KAB; TRA); Piman (Creole; Haiti; TRA; VOD); Piman Bouk (Creole; Haiti; VOD); Piman Zwazo (Creole; Haiti; VOD); Piment (Fr.; Haiti; AVP; BOU); Pimenta (Sp.; AVP); Piment Anuele (Fr.; AVP; KAP); Pimentao (Por.; AVP); Pimentão Comprido (Por.; AVP); Pimentão Cumari (Por.; AVP); Pimentão de Caiene (Por.; EFS); Pimentão de Cheiro (Por.; EFS); Pimentão Maca (Por.; AVP); Piment Bouc (Haiti; AVP); Piment Cabresse (Guad.; AVP); Piment Capsique (Fr.; EFS); Piment Caraibe (Fwi.; JTR); Piment Chien (Haiti; AHL); Piment Cultivee (Fr.; BOU); Piment de Cayenne (Fr.; Gabon; JLH; TRA); Piment des Jardines (Fr.; BOU); Piment des Jardins (Fr.; AVP); Piment Doux (Haiti; AHL); Piment Enrage (Fr.; AVP; JTR); Pimento (Eng.; FAC); Piment Oiseau (Fr.; AVP); Piment Plomb (Guad.; AVP); Piment Zouzeau (Haiti; AHL); Piment Zouezo (Haiti; AHL); Pimiento (Eng.; AVP); Pimiento Aji

(Sp.; AVP); Pimiento de la India (Sp.; EFS); Pimineto Malaguete (Sa.; SOU); Pimienton (Sa.; SOU); Piperus (Moldavia; KAB); Pod Pepper (Eng.; AVP); Poivre de Guinee (Fr.; BOU; EFS); Poivre d'Espagne (Fr.; AVP); Poivre d'Indie (Fr.; BOU); Poivre Long (Fr.; Gaud.; AVP); Poivriere de Cayenne (Fr.; AVP); Poivrier long (Fr.; BOU); Poivron (Fr.; AVP; BOU; TAN); Puca Uchu (Que.; DLZ); Pucuna Uchu (Bol.; DLZ); Pucunucho (Peru; DAV); Pway Kayèn (Creole; Haiti; VOD); Q'ellu Uchu (Que.; DLZ); Q'ellu Wayk'a (Aym.; DLZ); Q'omer Uchu (Que.; DLZ); Quiticot (Vis.; KAB); Quiya Cumari (Brazil; KAB); Red Chili (Eng.; HOS); Red Pepper (Eng.; AVP; JTR; VOD); Rocoto (Col.; IED); Saghakar (Lepcha; NPM); Sakaipilo (Madagascar; JLH); Soodimirapakaaya (Tel.; WO2); Spaanse Peper (Dutch; EFS); Spanish Pepper (Eng.; KAP); Spansicher (Ger.; AVP); Spansk Peber (Den.; EFS); Spansk Peppar (Swe.; EFS); Spansk Pepper (Nor.; KAB); Spur Pepper (Eng.; HOS); Tabasco Pepper (Eng.; HOS; VOD); Thilly Pepper (Eng.; AVP); Tiffle (Iran; EFS); Ti-Piment (Guad.; AVP); Togarashi (Japan; KAP; TAN); Touanka (Afr.; AVP); Tsikame (Matsigenka; MD2); Tsi-Tra-Ka (Tibet; NPM); Uchu (Arg.; Que.; AVP; DLZ); Ugn (Amarakaeri; MD2); Upperparanki (Mal.; NAD); Usimulagay (Tam.; WO2); Wasa (Callawaya; DLZ); Wayk'a (Aym.; DLZ); Wila Wayk'a (Aym.; DLZ); Wild Pepper (Eng.; JFM; JTR); Yuchi (Amahuaca; Shipibo/Conibo; MD2).

### Activities:

Adrenergic (1; LIB); Analgesic (f12; APA; JAD; ULW; VOD; WAM; 60P); Anesthetic (1; TAD); Antiaggregant (1; PH2; SKY); Antiarthritic (f1; MCK); Anticancer (f1; TAD; X16158935); Anticancer, mouth (1; X16158935); Antidote (f; IED); Antiinflammatory (f1; APA; TAD; WAM; WO2); Antiischemic (f1; TAD); Anti-MDR (1; X16158935; X17091773); Antinitrosaminic (1; JNU); Antioxidant (1; SKY; TAD; WAM); Antiplatelet (1; MCK); Anti-prostaglandin (1; X145302140); Antipsoriac (1; FNF); Antiseptic (f1; HDN; PNC; 60P); Antispasmodic (f1; PED); Antitumor (1; X16158935); Antiulcer (f1; APA; BGB; PED); Antiviral (1; WO2); Aphrodisiac (f; BOU); Astringent (f1; PED); Bactericide (1; PED; PH2; TRA); Bradycardiac (1; WO2); Bronchoconstrictor (1; TAD); Bronchodilator (f1; APA); Calcium-Channel-Blocker (1; TAD); Carcinogenic (f1; TAD); Cardiotonic (f; NAD); Carminative (f1; BGB; PED; 60P); Catabolic (f1; HAD; 60P); Chemopreventive (1; X16158935); Choleric (f1; TRA); Circulatory-Stimulant (f1; KAB; PED); CNS-Stimulant (f; LIB); Corticosteronogenic (1; WO2); Counterirritant (f12; APA; PED); COX-2-Inhibitor (1; X145302140); Curare (f1; HDN); Cytotoxic (1; X16158935); Dart Poison (f; WBB); Decongestant (f1; APA; DAD; RIN; TRA); Detoxicant (f; BOW); Diaphoretic (f1; BGB; PED); Digestive (f1; AHL; APA); Diuretic (f; BOU; JFM); Expectorant (f; HDN); Febrifuge (f1; TAD); Fibrinolytic (f1; LIB; MAB; PH2); Fungicide (1; X16784815); Gastrogogue (f1; APA); Hemolytic (f1; BGB); Hemostat (f; 60P); Hyperemic (2; KOM); Hypocholesterolemic (1; APA; LE2); Hypoglycemic (1; DAD); Hypotriglyceridemic (1; APA); Insecticide (1; UPW; WBB); Irritant (1; APA); Lacrymatory (1; MCK); Lipase-Promoter (1; JE50:167); Lipolytic (f; TAD); 5-Lipoxygenase-Inhibitor (1; MCK); Maltase-Promoter (1; JE50:167); Neurotonic (f; AHL); Neurotoxic (1; KOM); Orexigenic (f1; APA; BOU; PR14:401); Propecic (f1; PR14:401); Radioprotective (1; WO2; X10775394); Rubefacient (f12; APA; BOU; NPM; PED; TRA); Sialogogue (f1; APA; WBB); Stimulant (f1; AHL; BGB; BOU; IED; NPM; PED); Stomachic (f; BOU; IED; NAD; NPM; WBB); Sucrase-Promoter (1; JE50:167); Synergist (1; PED); Thermogenic (f1; FNF; HAD; LIB); Tonic (f1; APA; PNC; WAM); Ulcerogenic (f1; WO2); Urease-Inhibitor (1; X16158935); Uterocontractant (f1; TRA); Vasoconstrictor (f; TRA); Vermifuge (f; UPW); Vulnerary (f1; WO2).

### Indications:

Adenoma (1; X11604990); Ague (f; IED); Alcoholism (f1; HH2; NAD; PHR; PH2; WO2); Alopecia (f; PR14:401); Amebiasis (f; HDN); Angina (f; LIB; MAB); Anorexia (f1; APA; PHR; WBB; WO2); Anorexia Nervosa (f; PH2); Anxiety (f; VOD); Arrhythmia (f; FNF);

Arteriosclerosis (1; PHR; PH2); Arthrosis (pain) (f12; APA; PHR; PH2; TRA); Asthma (f1; JFM; JNU); Atony (f; ADP); *Bacillus* (1; LIB; X10548758); Backache (f1; APA; WBB); Bacteria (1; X10548758; X17002415); Bleeding (f; DAD); Boils (f; IED; JFM; UPW); Bronchosis (f1; APA); Bubonic Plague (f; UPW); Burns (f; LIB); Burning Mouth Syndrome (1; PR14:401); Bursitis (f1; SKY); Cancer (f1; JLH; X16158935); Cancer, breast (f; JLH); Cancer colon (1; X11604990); Cancer, mouth (f1; JLH; X16158935); Cancer, nose (f; JLH); Cancer, skin (f; JLH); Carcinoma (1; X16158935); Cardiopathy (f1; PHR; PH2; UPW); Caries (f; HDN); Cataracts (1; DAD); Chest Colds (f; JFM; UPW); Chickenpox (f1; APA); Chilblains (f1; BGB; PNC; WO2); Childbirth (f1; 60P); Chills (f; APA); Cholera (f; ADP; IED; JAF49:3101; PH2); Chromhidrosis (1; LIB); Ciguatera (f; AHL); *Clostridium* (1; MCK); Cluster Headache (1; APA); Colds (f1; APA; JFM; RIN); Colic (f1; APA; JFM; PNC); Coma (f; HDN); Congestion (f; DAD; JFM); Conjunctivosis (f; HDN); Consumption (f; UPW); Convulsions (f; HDN); Costosis (f; HDN); Coughs (f; JFM; PH2); Cramps (f12; KOM; PH2); Cystosis (f; LIB; PR14:401); Dandruff (f; WO2); Delirium (f; KAB; LIB; NAD); Dermatoses (f; ULW); Detrusor Hyperreflexia (1; PR14:401); Diabetes (1; APA); Diabetic Neuropathy (1; SKY); Diarrhea (f; PHR; PH2); Dipsomania (f1; HH2; NAD; PHR; PH2; WO2); Diphtheria (f; LIB; NAD); Dropsy (f; IED); Dyspepsia (f1; APA; BGB; IED; NPM; PH2; VOD; WO2); Dyspnea (f; DAV; WO2); Dysuria (f; HDN); Earache (f; ADP; IED); Edema (f; PH2); Enterosis (f; PH2); Epithelioma (f; JLH); *Escherichia* (1; X10548758); Exanthem (f; UPW); Fever (f1; IED; PHR; PH2; TAD; VOD); Flu (f; DAV); Frostbite (f; BGB; PHR; PH2; SPI); Fungus (1; X10548758); Gangrene (f; LIB); Gas (f1; APA; DAV; NAD); Gastrosis (f1; JFM; PH2; TRA; WO2); German Measles (f; HDN); Giddiness (f; IED); Gonorrhea (f; WO2); Gout (f; IED; KAB; NAD; PH2); Hay Fever (1; RIN); Headache (f1; APA; WAM); Head Colds (f1; RIN); *Helicobacter* (1; X16158935; X17002415); Hemorrhoids (f; ADP; BOU; IED; JFM; WBB); Hepatosis (f; WBB; WO2); Herpes Zoster (1; DAV; SKY; VOD); High Blood Pressure (f; VOD); High Cholesterol (1; APA; LE2; TRA); High Triglycerides (1; APA); Hoarseness (f; ADP; KAB; PHR); Hydrocele (f; HDN); Impotence (f; BOU; LIB; PHR); Incontinence (1; MCK); Induration (f; JLH); Infection (f1; HDN; IED; PH2; ULW); Inflammation (f1; TRA; WO2); Inorgasmia (f; PHR); Ischemia (1; FNF); Itch (f12; ABS; MCK); Jaundice (f; HDN; WO2); Kernel (f; JLH); Labor (f1; 60P); Laryngitis (f; PNC); Lumbago (f1; APA; NAD; PHR; PH2; PNC); Madness (f; HDN); Malaria (f; IED; KAB; NAD; PHR; PH2); Mastosis (f; JLH); MDR (1; X16158935; X17091773); Migraine (f1; FNF; NMH; VOD); Myalgia (f12; APA; KOM; PNC); Mycosis (1; X10548758); Myosis (f12; PHR; PH2); Nausea (f; VOD); Nephrosis (f; LIB); Nervousness (f; VOD); Neuralgia (f1; APA; SKY; VOD; WO2); Neuropathy (1; TAD); Notalgia Paresthetica (1; PR14:401); Obesity (f1; FNF; HAD); Ophthalmia (f; VOD); Osteoarthritis (f1; LIB; TAD); Otosis (f; PH2); Pain (f12; APA; BGB; JAD; PH2; ULW; VOD; WAM; WBB); Paralysis (f; WO2); Pharyngosis (f1; DAD; PH2; WOI); Plague (f; WBB); Pneumonia (f; LIB); Poor Circulation (1; WAM); Proctosis (f; LIB); Prurigo (f12; ABS); Psoriasis (f1; APA; FNF; SKY); Pulmonosis (f; IED; ULW; 60P); Rabies (f; HDN); Respirosis (f; IED; ULW); Rheumatism (f12; APA; PHR; PH2; TRA); Rhinosis (f; HDN; JLH; PR14:401); Ringworm (f; MD2); *Salmonella* (1; WO2); Scabies (f; MD2); Scarlet Fever (f; ADP; PH2); Sciatica (f1; PH2); Seasickness (f; HH2; PH2); Shingles (f1; APA; VOD); Snake Bite (f; IED; 60P); Sores (f; LIB); Sore Throat (f1; ADP; JFM; KAB; PHR; PH2); Sprains (f1; ADP; APA); Stomachache (f; JAF49:3101; JFM); Stomatosis (f; LIB); Strain (f1; APA); *Streptococcus* (1; LIB; MCK); Stroke (1; PHR; PH2); Surfeit (f; JFM); Swelling (f; DAD; WBB); Tachycardia (1; FNF); Tennis Elbow (1; JAD); Tension (f12; PH2); Thumb-Sucking (1; APA; BGB); Thyropathy (f; PED); Tonsilosis (f; ADP; HDN; LIB); Toothache (f1; DAV; 60P); Tuberculosis (f; UPW); Tumors (f1; NAD; X16158935); Typhoid (f; IED); Typhus (f; KAB; JAF49:3101); Ulcers (f1; BGB; LIB; MCK; X16158935; X17002415); UTIs (f; PH2); Varicose Veins (1; JAD; WBB; WO2); VD (f; WO2); Vertigo (f; VOD); Viruses (1; WO2); Whitlow (f; VOD); Worms (f; UPW); Wounds (f1; JFM);

VOD; WO2); Xerostomia (1; FNF); Yaws (f; UPW); Yeast (1; X10548758; X16784815); Yellow Fever (f; JAF49:3101; KAB; PH2).

### Dosages:

FNFF = !!! Fruits widely eaten, raw, cooked, dried, or preserved; leaves steamed as potherb or added to stews and soups, e.g., Andean “locro”; Koreans use dry pepper leaves, thin threads, or red pepper and a hot-pepper flavored soybean paste “kochugang”; Thais add the green leaves to green their green curry paste “gkaeng kiow wahn” (EB54:155; FAC; TAN). Seeds tamped in cavities for toothache.  $\frac{1}{4}$ – $\frac{1}{2}$  tsp spice/cup water after meals (APA);  $\frac{1}{4}$ – $\frac{1}{2}$  dropper tincture (APA); 0.3–1.0 ml fruit tincture (CAN; PNC; SKY); 0.05–0.15 strong fruit tincture (PNC); 30–120 mg fruit 3×/day (CAN);  $\frac{1}{2}$  cup fresh fruit (PED); 100–300 mg dry fruit (PED); 0.5–1 tsp dry fruit/cup water (SF); 200 mg dry fruit:1 ml alcohol/1 ml water (PED); 30–120 mg powdered cayenne (PNC); 0.6–2.0 mg capsicum oleoresin (CAN; PNC); 2–3 (450 mg) capsules 3×/day (NH); 1 StX 450 mg capsule 3×/day (NH). Topical maximum strength 2.5% (CAN). Topical StX should contain, methinks, 0.0225–0.075% capsaicin, but I see reports of 0.25–0.75% capsaicin (SF); some people work with stronger ointments than mine (0.025–0.075% capsaicin); Steve Foster gives levels 10 times higher, and CAN 100 times higher (for capsaicinoids) (SF). I consider these higher levels rather too strong, if not dangerous. Sheila Humphrey, RN, suggests inhaling a few grains of cayenne for migraine (NMH).

- Asian Indians take fruit decoction with opium and fried asafetida for cholera (ADP).
- Asian Indians suggest capsicum tea with cinnamon and sugar for calming delirium tremens and the cravings of dipsomaniacs (NAD).
- Asian Indians suggest plaster of amber, black pepper, capsicum, and garlic for lumbago (NAD).
- Bahamians and Curaçaoans apply crushed leaves with or without castor oil to boils (JFM).
- Caribs use fruit juice (not hot pepper I hope) as eye drops in ophthalmia (VOD).
- Costa Rican BriBri take root decoction for colic and gastrostasis after overeating (JFM).
- Cubans and Guadelupans eat fruit as antihemorrhoidal diuretic (JFM).
- Dominican Caribs pound leaves in shark oil to poultice onto sores and wounds (VOD).
- Dominicans give a chili pepper leaf infusion with basil and *Tabebuia* for pediatric anxiety (BOD).
- Dominicans take bell pepper leaf decoction for high blood pressure (VOD).
- Gabonese apply the plant to cancers of the nose (JLH).
- Guianans take the fruit with cinchona for malaria (KAB).
- Haitians apply greased leaves to forehead for migraine and vertigo (VOD).
- Haitians dress leaves onto whitlows and wounds as cicatrizant and vulnerary (VOD).
- Haitians rub fruit tincture onto rheumatism (VOD).
- Haitians use ripe fruit infusion for dyspepsia, fever, nausea, and nervousness (VOD).
- Madagascans eat fruits for DT's (KAB); apply powdered fruits (*C. minimum*) to epitheliomas (JLH).
- Trinidadans take leaf decoction for asthma, chest colds, and cough (JFM).
- West Indians use capsicum to relieve the sinking “at the epigastrium felt by drunkards” (NAD).

### Downsides:

Class 2d. Contraindicated on broken skin or near eyes (AHP, 1997). Commission E reports contraindications of damaged skin, hypersensitivity, and adverse effects of irritant properties; rarely allergic reactions (KOM). Not to be used for more than 2 days, with 14-day lapse before reapplying (this is not often followed in this country) (AEHD), the Herbal PDR suggests the same (Fleming et al., 1998). Newall, Anderson, and Phillipson (1996) report capsaicinoids to be irritant, “The toxicity of the capsaicinoids has reportedly not been ascribed to any one

specific action but may be due to their causing respiratory failure, bradycardia, and hypotension." Excessive consumption may cause gastroenteritis, hepatic, renal damage (CAN) or ulcers (SKY). Capsicum may interfere with blood pressure medicines and MAOIs (CAN). Antigens have been associated with anaphylaxis and rhinoconjunctivitis (PH2). Not for children under 2 years (WAM). Chronic administration of capsicum extract (0.5 µg capsaicin/kg body weight; that would be 50 µg for this 100-kilo rat, Jim Duke) to hamsters has been reported toxic (CAN); the oral LD50 in rats is 190 mg/kg (CAN). The oral LD50 97–294 in mice is such that led Tucker and DeBaggio (2000) to calculate for me, a 220 lb (100 kg) rat, I'd need to ingest some 135 to 415 ounces of hot pepper (TAD). No way. Paprika a/o capsicum may speed other medications. Reading that, I went and tried a mixture of grapefruit juice with black pepper and tabasco; three well-known potentiators of medications. Interesting, spicy but good. Sure beats taking my less spicy herb, or synthetics for those more unfortunate than I. Digestive properties of capsaicin may be attributed to an enhancement of digestive enzyme activities or to indirect effects on vascular endothelia, smooth muscle, and mast cells, resulting in increase of vascular permeability and of mucosal blood flow. Hot spices can promote antigen transfer through epithelia and thereby augment sensitization or allergic reactions. Unfortunately it may also speed up hepatic metabolism of many drugs effectively rendering them weaker. Many of my correspondents find the capsaicin cure worse than their aching ailment. Fleming et al. (1998) have some heavy duty toxicity info: toxic dosages possibly leading to life-threatening hypothermia by affecting the thermoreceptors. Prolonged consumption of high doses can cause chronic gastritis, kidney and liver damage, and neurotoxicity (PHR). Prolonged exposure may deaden the sensitivity to any pain (PED). "Prolonged exposure to mucosa will make the mucosa insensitive to industrial pollution" (PED). I don't know whether that's supposed to be a plus or a minus (JAD). As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

#### Extracts:

Hot peppers exhibit vasculotropic and vasoconstrictor activity. Capsaicin has decongestant and rubefacient activities (TRA). Capsicum fruit extract is 4 times as toxic ipr to mice as pure capsaicin. Apparently the capsaicin derivatives or other components have a synergistic effect (HDN). As a corollary, I confess or chide that such synergies would also prevail, on average, in medicinal activities as well. Capsicum extracts of both species and other spp inhibit various pathogens, including *Bacillus cereus*, *B. subtilis*, *Clostridium sporogenes*, *C. tetani*, and *Streptococcus pyogenes*, while individual capsinoids were not (MCK). (=) Capsidiol was more efficacious (MIC = 200 µg/ml) than metronidazole (MIC = 250 µg/ml) at arresting growth of *Helicobacter in vitro* (X17002415). Some hexane and acetone extracts cytotoxic towards three human oral tumor cell lines rather than against three normal human oral cells, suggesting tumor-specific cytotoxicity, and also displayed MDR reversal activity and urease inhibition, possibly due to higher carotene and polyphenol content (X16158935).

### ANDIROBA (*Carapa guianensis* Aubl.) +

#### MELIACEAE

#### Illustrations:

pl 200D (DAG)

#### Common Names:

Almendron (Ma.; JFM); Anderoba (Peru; Sp.; EGG); Andiroba (Brazil; Peru; Sp.; EGG; JTR; SOU; USN); Andiroba-Saruba (Brazil; Ma.; Por.; RAI; USN); Andirova (Por.; AVP); Bastard Mahogany (Bel.; Eng.; BNA; IED); Bois Rouge (Fwi.; AVP); Cabirma de Guinea (His.; AHL);

Cachipou (Fwi.; AVP); Cachipounoix de Crab (Fr. Guiana; JTR); Caoba (Cr.; AVP); Caraba (Dwi.; JTR); Carapa (Brazil; Guad.; Mart.; Peru; Por.; Sp.; AVP; EGG; USN); Carapa Blanc (Fwi.; JTR); Carapa Rouge (Fr. Guiana; Fwi.; JTR); Carapa Tree (Eng.; JTR); Carapinha (Ma.; JFM); Carapo (Trin.; Ven.; AVP; JTR); Cedro (Sp.; USN); Cedro Bateo (Pan.; Sp.; AVP; IED); Cedro Macho (Cr.; Peru; Sp.; AVP; EGG); Crabwood (Eng.; IED; USN); Crapaud (Ma.; JFM); Crappo (Dwi.; JTR); Figuero (Ecu.; AVP); Figueroa (Ecu.; AVP; DAG); Huino (Col.; Sp.; IED); Iandiroba (Brazil; Por.; USN); Iandirova (Brazil; Ma.; Por.; RAI; USN); Jandiroba (Ma.; JFM); Karaba (Dwi.; JTR); Krappa (Dwi.; JTR); Masábolo (Col.; Sp.; AVP; IED); Nandiroba (Brazil; Por.; USN); Noix de Crab (Fwi.; AVP); Penaiba (Ma.; JFM); Randiroba (Por.; AVP); Requia (Peru; Sp.; EGG); Saba (Nic.; Ulwa; IED; ULW); Sapo (Ma.; JFM); Serapa Jaune (Fwi.; JTR); Tangaré (Ecu.; Pan.; Sp.; AVP; DAG; IED); Tololo (Ma.; JFM); Warawere (Bel.; BNA); White Crabwood (Eng.; JTR).

### Activities:

Analgesic (f1; RAI; X16134059); Anthelmintic (f; EGG); Antiallergic (1; X16134059; X16399616); Antiarthritic (f; DAV; RAI); Antibradykinin (1; X16134059); Antiedemic (1; X16134059); Antihistaminic (1; X16134059); Antiinflammatory (f1; DAV; RAI; X17122962); Antimalarial (1; RAI); Antiprostaglandin (1; X16134059); Antitumor (1; RAI); Astringent (f; EGG; IED); Bactericide (1; RAI); Cicatrizant (f; JTR); Emollient (f; DAV); Febrifuge (f; DAV; EGG; SAR); Hypocholesterolemic (1; RAI); Hypotensive (1; RAI); IL-1beta-Inhibitor (1; X17122962); Insecticide (1; EGG; RAI); Insectifuge (1; DAV; X15517027); Ixodifuge (f; DAV; RAI); Larvicide (1; X15669392; X16253435; X17304939); Miticide (1; RAI); Mosquitocide (1; X15669392); NF-kappaB-Inhibitor (1; X16399616; X17122962); Pediculicide (f; MPB); Poison (f; IED; RAR); Purgative (f; IED; JTR); Repellent (1; 15517027; X15669392); TNF-alpha-Inhibitor (1; X17122962); Tonic (f; DAV); Vermifuge (f; DAV; JTR; MPB; SAR); Vulnerary (f; EGG).

### Indications:

Acne (f; RAI); Allergies (f1; DAV; RAI; X16134059; X16399616); Arthritis (f; DAV; RAI); Bacteria (1; RAI); Boils (f1; RAI); Bruises (f; RAI); Cancer (1; RAI); Cellulite (f; RAI); Cervicosis (1; RAI); Constipation (f; JTR); Coughs (f; DAV; RAI); Dermatitis (f; DAV; JTR); Diabetes (f; RAI); Diarrhea (f; IED; JFM); Dysplasia (1; RAI); Earache (f; RAI); Edema (1; X16134059); Exanthem (f; MPB); Fever (f; DAV; EGG; JTR; SAR); Flu (f; RAI); Fungus (f; MPB); Gastrosis (f; MPB); Hepatosis (f; IED; JTR); Herpes (f; DAV; EGG; RAR); High Blood Pressure (1; RAI); High Cholesterol (1; RAI); Infection (f1; MPB; RAI); Inflammation (f1; DAV; RAI; X17122962); Itch (f; JTR); Leprosy (f; RAI); Lice (f; RAI); Malaria (f1; JTR; MPB; RAI); Myalgia (f1; RAI); Mycosis (f; MPB); Neuroblastoma (1; RAI); Osteosarcoma (1; RAI); Pain (f1; RAI; X16134059); Parasites (f1; DAV; RAI); Pediculosis (f; MPB); Psoriasis (f; RAI); Rashes (f; RAI); Rheumatism (f; IED; JFM; JTR); Ringworm (1; MPB); Sarcoma (1; RAI); Sores (f; DAV); Sore Throat (f; RAI); Splenosis (f; IED; JTR); Stomachache (f; MPB); Syphilis (f; JFM); Tetanus (f; IED; JTR); Ticks (f; DAV); Tumors (1; RAI); VD (f; JFM); Worms (f; DAV; EGG; JTR; MPB; SAR); Wounds (f; EGG; JTR; RAI).

### Dosages:

FNFF = X. Not a food plant. 2 drops oil in ear for earache (RAI); 2 ml oil in small glass of warm water 2–3×/day taken internally or gargled (RAI).

- Argentinians suggest 1–2 handful leaves boiled in 1 liter water for itch (JFM).
- Brazilians massage pit of stomach with seed oil for stomachache, using bark for diarrhea, fever, malaria, and worms, topically for exanthema, ringworm, and syphilis sores (MPB), also using for acne, arthritis, cancer, constipation, cough, dermatoses, hepatoses, herpes, inflammation, myalgia, sore throat, and splenosis (RAI).
- Colombians use for arthritis (IED).

- Creoles, Palikur, and Wayãpi use for removing ticks and for *Schongastia guianensis*, which gets in the skin (GMJ).
- Guyanans use for dermatoses, diarrhea, inflammation, myalgia, rheumatism, ticks, and wounds (JFM).
- Munduruku use the seed oil in mummifying trophy human heads (JTR).
- Native Americans use the oil two ways for malaria, topically or burning smoke as a preventive mosquitofuge (inferior to DEET (X15517027)), and for intermittent fever (JTR); also used in extracting ticks from scalp, applied to joints for arthritic pain, and mixing oil with water and human milk as an eardrop for earache (RAI).
- Nicaraguans use for diarrhea and skin problems (IED; RAI).
- Panamanians use for arthritis (RAI).
- Peruvians suggest washing herpes with bark decoction, bark tea as anthelmintic, astringent, febrifuge, tonic, vermifuge, and vulnerary (EGG), for dermatosis like skin sores (RAI).
- Salvadorans take bark decoction for fever (JFM).
- Trinidadans apply seed oil to dermatoses and sore feet, rubbing on body for colds (JFM), taking also for fever, flu, and myalgia (RAI).
- Venezuelans take for dermatoses, itch, leprosy, malaria, and parasites (RAI).

#### Downsides:

Few downsides reported; however, no contraindications or drug interactions (RAI). With all its pesticidal properties, the plant and its oil should be used with caution (JAD). As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

#### Extracts:

Epoxyzadiradione shows *in vitro* activity against neuroblastoma and osteosarcoma. Gedunin said to be as potent an antimalarial as quinine (RAI). Extract larvicidal for *Aedes aegypti* (LC50 = 57 µg/l) and *Aedes albopictus* (X15669392; X16253435). Oil (100–400 mg/kg, p.o.) inhibited pleural exudation, paw and ear edema; tetranortriterpenoids (12.5–100 mg/kg, p.o.) inhibited edema induced by histamine, PAF and bradykinin; at 100 mg/kg it inhibited prostaglandin E(2) generation after antigenic challenge and hyperalgesia (X16134059).

### IPECAC (*Carapichea ipecacuanha* (Brot.) L. Andersson) + RUBIACEAE

#### Illustrations:

p 91 (DLZ)

#### Synonyms:

*Callicocca ipecacuanha* Brot. (basionym); *Cephaelis acuminata* H. Karst.; *Cephaelis ipecacuanha* (Brot.) Tussac; *Psychotria ipecacuanha* (Brot.) Stokes; *Uragoga ipecacuanha*; fide (USN).

#### Notes:

Native Americans used the plant for dysentery before Columbus, but a Portuguese priest got it into European medical practice in 1649 (JFM).

#### Common Names:

Altım Kökü (Tur.; EFS); Ansachlya (Aym.; Bol.; DLZ); Braakwortel (Dutch; EFS); Brasilianische Brechwurzel (Ger.; USN); Brazilian Ipecac (Eng.; Ocn.; AH2); Brechwurzel (Ger.; EFS); Broekrod (Den.; EFS); Ipeca (Brazil; MPB); Ipecac (Eng.; Scn.; AH2; CR2; JLH; USN); Ipecacuanha (Brazil; Eng.; Fr.; Ocn.; Por.; Sp.; CR2; EFS; JLH; MPB; USN); Ipeca

Verdadeira (Brazil; RAR); Opeka (Tur.; EFS); Perpétua (Brazil; RAR); Picho Sisa (Peru; RAR); Poaia (Brazil; MPB); Poaia Preto (Brazil; JFM); Poaja (Col.; IED; JFM); Poalla (Bol.; DLZ); Raicilla (Sp.; IED; USN); Raizcilla (Nic.; IED); Rio Ipecac (Eng.; Ocn.; AH2); Rosa de Mato (Brazil; RAR); Ruhrwurz (Ger.; EFS); Sufia (Peru; RAR); Usiya Puiño (Huitoto; Peru; RAR); Yaco Sisa Blanca (Peru; RAR).

### Activities:

Amebicide (f1; APA; HH2; PHR; X17671728); Analgesic (f; APA); Antacid (f; WO2); Antemetic (1; PH2); Antiinflammatory (1; APA); Antileukemic (1; X17671728); Antinauseant (f; APA); Antispasmodic (1; EFS; PHR; PH2); Antitumor (f; JLH); Apoptotic (1; X17671728); Cholagogue (f; EFS); Cytotoxic (1; HH2; X17671728); Diaphoretic (f; APA; EFS; MPB; WO2); Digestive (f; APA); Emetic (f12; HH2; PHR; PH2; WO2; X17671728); Expectorant (f1; APA; EFS; HH2; PHR; PH2; WO2); Hemostat (f1; DLZ; EFS); Insecticide (f; WO2); Orexigenic (1; APA; WO2); Rubefacient (1; WO2); Sialagogue (1; WO2); Sternutatory (1; WO2); Tachycardic (f; WO2); Toxic (f; EFS).

### Indications:

Abscesses (f; WO2); Adenopathy (f; JLH); Alcoholism (f; WO2); Amebiasis (f1; MPB; PHR; PH2; X17671728); Anorexia (1; WO2); Asthma (f; PH2; RAR); Bilharziasis (f1; DAV; WO2); Bilioussness (f; WO2); Bleeding (f1; DLZ; EFS; PH2); Bronchosis (f1; APA; PHR; PH2; RAR; WO2); Cancer (f1; JLH; X17671728); Cancer, breast (f1; DAV; JLH); Cancer, gland (f1; DAV; JLH); Cancer, ovary (f1; DAV; JLH); Cancer, uterus (f1; DAV; JLH); Constipation (f; WO2); Coughs (f1; PHR; X17671728); Cramps (1; EFS; PHR; PH2); Croup (2; PHR; PH2); Dermatitis (f; IED); Diarrhea (f1; APA; IED; RAR); Dysentery (f1; PHR; PH2); Enterosis (f; DLZ; PH2); Epithelioma (f; JLH); Fever (f; IED; WO2); Flu (f; APA); Gastrosis (f; DLZ; PH2); Gonorrhoea (f; WO2); Guinea Worm (f1; WO2); Hemorrhoids (f; WO2); Hepatosis (f; WO2); Indigestion (f; APA; WO2); Inflammation (f1; APA; PH2); Leukemia (1; X17671728); Leukoderma (1; WO2); Morning Sickness (f; APA); Mucososis (f; PH2); Nausea (f; APA); Pain (f; APA); Pertussis (f1; APA; WO2); Pneumonia (f; DLZ); Poisoning (f12; APA); Pulmonosis (f; JFM); Pyorrhoea (f; WO2); Rashes (f; IED); Respirosis (f; IED); Sarcoma (f; JLH); Sores (f; WO2); Sore Throat (f; WO2); Spasms (1; EFS; PHR; PH2); Tumors (f1; JLH); Vomiting (f; X17671728); Worms (1; DAV; WO2).

### Dosages:

FNFF = X. Emetic dose = 15 ml (AHP); 0.4–1.4 ml ipecac syrup (AHP); 25–100 mg powdered ipecac (PNC); 0.25–1 ml root tincture (APA); 0.25–1 ml liquid root extract (APA; PNC).

- Bolivians around Beni give small doses of root decoction to herbivorous animals for gastrointestinal disturbances and to horses with pneumonia (DLZ).
- Bolivians around Santa Cruz use as antidiysenteric, emetic, and expectorant (DLZ).
- Bolivians take the root decoction, orally or in washes, to stop bleeding (DLZ).
- Brazilians consider the root antidiysenteric, diaphoretic, emetic, and expectorant (MPB).
- Colombians chew root as amebicide and insect repellent (IED).
- Nicaraguans take root decoction orally for dermatoses, diarrhea, fever, rash, respiratory problems, sores, and as an emetic (IED).

### Downsides:

Class 2b, 2d. Contraindicated in cardiac cases; not for long term use; may cause nausea and vomiting (AHP). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages as an expectorant” (PH2). Allergenic and myopathogenic after prolonged dosing (PHR). Toxic doses may lead to convulsions, corrosion of GI mucous membranes, hypotension, respiratory dysfunction, shock, tachycardia, maybe even coma (PHR). Cephaeline more irritant and almost twice as toxic as emetine (WO2). As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.



**Extracts:**

Ironically while used primarily as a nauseant, to induce the vomiting of poisons, in low doses the herb serves as an anti-nauseant, even folklorically in morning sickness (APA). The alkaloid emetine induced apoptosis and caspase activity comparable to cytotoxic effect of cisplatin, and additionally enhanced cisplatin-induced apoptosis (X17671728).

Cephaeline: amebicide, cytotoxic, emetic, expectorant, protisticide; LD50 = 10 ipr rat (FNF).

**BALLOON VINE (*Cardiospermum halicacabum* L.) +  
SAPINDACEAE**

**Illustrations:**

p 135 (NPM); pl 259 (KAB)

**Common Names:**

Agniballi (Kan.; KAB); Amoteremi (Congo; AVP); Badha (Pak.; JLH); Ballarina (Peru; RAR; SOU); Balloon Vine (Eng.; Fla.; S. Afr.; Scn.; AH2; AUS; KAB; UPW; USN); Ban Chichinda (Chepang; NPM); Bangcolon (Tag.; KAB); Banu Uchchhe (Sanskrit; NAD); Barcolon (Pi.; KAB); Bâtard Persil (Dor.; AUS); Bejuco de Orinar (Ma.; JFM); Bejuco Globo (Ma.; JFM); Blaasklimop (Afrikaans; USN); Black Liquorice (Eng.; KAB); Black Winter Cherry (Eng.; UPW); Blister Creeper (Eng.; KAB; WOI); Bombija (Ma.; JFM); Bombilla (Pr.; AUS); Bombilla Menor (Pr.; AUS); Bone Care (Creole; Haiti; VOD); Bonnet Carré (Haiti; AHL); Budakakara (Tel.; KAB); Cana (Vis.; KAB); Cardiosperme (Fr.; KAB); Cay Bong Bong (Vn.; KAB); Colochero (Ma.; JFM); Coração da India (Brazil; AVP); Corinde Glabre (Creole; Haiti; VOD); Esungan (Fanti; KAB); Farolito (Col.; Cuba; Pr.; AVP); Farolito de la Virgen (Ven.; AUS); Garafunin Fadama (Hausa; KAB); Garden Wine (Caicos; Tur.; AUS); Guisante Maravilla (Pr.; AUS); Gumba (Congo; AVP); Habbulkalkal (Arab.; KAB); Halicacabon Estrange (Fr.; AUS); Halicacabo Salvatico (It.; AUS); Heart Pea (Eng.; Ocn.; AH2; USN); Heart Seed (Eng.; AVP; UPW); Hierba de Chivato (Mex.; AUS); Huayunac (Ma.; JFM); Huevo de Gato (Mex.; AUS); Indravallii (India; AUS); Jyotishmati (Sanskrit; NAD); Kagdolio (Porebunder; KAB); Kanphuti (Mar.; KAB); Karavi (Sanskrit; AUS; NAD); Karnaspota (Sanskrit; NAD); Karolio (Guj.; KAB); Kesh Lahara (Nepal; NPM); Kokalende (Ubangi; JLH); Kola Myetsi (Burma; JLH); Kottavan (Tam.; KAB); Lataphatkari (Ben.; KAB); Lataphatki (Sanskrit; NAD); Lesser Balloonvine (Eng.; USN); Lofofu (Congo; AVP); Love-in-a-Puff (Eng.; NPM); Malamai (Burma; KAB); Mani Mani (Congo; AVP); Masontsokina (Madagascar; KAB); Mor Ko Ton (New Cal.; KAB); Mubogo Bogo (Congo; AVP); Mudakattam (Sri.; KAB); Muditos (Mex.; AUS); Muditos (Ma.; JFM); Okpoku Lairnosi (Krobo; KAB); Painairavel (Sin.; KAB); Palsy Curer (Eng.; KAB); Paltugpaltucan (Pam.; KAB); Peria Bulan (Malaya; KAB); Persil Bâtard (Guad.; His.; Mart.; AUS; AVP); Persil Diable (Guy.; AVP); Pesi Bata (Creole; Haiti; VOD); Phon Thuyen Kat (Ic.; KAB); Pigeons Knee (Eng.; KAB); Poc Poc Liane (Réunion; KAB); Pois à Coeur (Haiti; AVP); Pois de Merveille (Haiti; AVP); Pois Merveille (Guad.; Mart.; AVP); Pwa de Mèrvèy (Creole; Haiti; VOD); Pwa Mevey (Creole; Haiti; VOD); Revienta Caballos (Cuba; AUS); Roomsche Criecken van Overzee (Dutch; AUS); Sprainbush Wine (Dwi.; AUS); Toffe Toffe (His.; AHL); Totoku (Twi; KAB); Ulinna (Mal.; KAB); Urundeburu (Tulu; KAB); Uzipho (Zulu; ZUL); Uziphu (Zulu; KAB); Welsch Schlutten (Ger.; AUS); Wild Supplejack (Jam.; AUS); Winter Cherry (Eng.; Ocn.; AH2; JLH; UPW; USN); Yerba Mora Desta Suerte Estangera (Sp.; AUS); Zab Bich (Trin.; AUS).

**Activities:**

Abortifacient (f; WO2); Anabolic (1; WO3); Analgesic (1; DAW; HDN); Anthelmintic (f; ZUL); Antifeedant (1; HDN; WO2); Antihistaminic (1; WO2); Antiinflammatory (f1; HDN);

VOD; X3613609); Antioxidant (1; X16469462); Antiparasitic (1; X16151739); Antiperoxidant (1; X16469462); Antiphage (1; HDN); Antiradicular (1; X16469462); Antiseptic (1; UPW); Antisickling (1; WO3); Antispasmodic (f1; HDN; WO2); Antiulcer (1; X16469462); Aperient (f; KAB); Aperitive (f; UPW); Aphrodisiac (f; AUS); Bactericide (1; HDN); Bitter (f; UPW); Cardiodepressant (1; ZUL); Cardiotonic (1; ZUL); Cholagogue (f; ZUL); Cicatrizant (f; UPW); CNS-Depressant (1; HDN); Curare (1; HDN); Cyanogenic (1; HDN); Demulcent (f; NPM; UPW); Diaphoretic (f; HDN; IED; RAR; UPW; VOD); Diuretic (f1; HDN; RAR; UPW; VOD; WO2; ZUL); Emetic (f; UPW; ZUL); Emmenagogue (f1; DAW; KAB); Epileptogenic (f; UPW; ZUL); Febrifuge (f1; DAW; HDN; IED; X10641181); Filaricide (1; X10953224); Gastroprotective (1; X16469462); Glutathionigenic (1; X16469462); Hemostat (f; HDN); Hypotensive (1; HDN; WO2); Insectifuge (1; HDN); Irritant (f; UPW); Larvicide (1; WO3); Laxative (f; HDN; ZUL); Myocardiodepressant (1; HDN); Orexigenic (f; UPW); Ovicide (1; WO3); Paralytic (1; HDN); Parasympathomimetic (1; HDN); Pediculicide (1; WO3); Rubefacient (f; NAD; UPW); Sedative (1; AUS); Stomachic (f; HDN; NAD); Tonic (f; HDN; IED; UPW); Uterotonic (f; WO2); Vasodepressant (1; AUS); Vermifuge (f; ZUL).

### Indications:

Abscesses (f; AHL; DAW); Allergies (1; WO2); Alopecia (f; WO2); Amenorrhea (f1; HDN; KAB; UPW); Anemia (1; WO3); Angina (1; WO3); Arthritis (1; WO3); Asthma (f; NPM); Bacteria (1; HDN; ZUL); Bleeding (f; HDN); Bleennorrhagia (f; KAB); Boils (f; AHL; DAW); Bronchosis (f; NAD); Bubo (f; DAW); Cancer (f; JLH); Catarrh (f; ZUL); Colds (f; HDN; UPW); Colic (f; WO2); Conjunctivosis (f1; DAW; KAB; ZUL); Constipation (f; HDN; ZUL); Coughs (f; HDN; WO2); Cramps (f1; HDN; WO2); Cystosis (f; HDN; VOD); Dandruff (f; WO2); Debility (f; UPW); Dermatitis (f; UPW; ZUL); Diarrhea (f; HDN; NPM; UPW; ZUL); Didymitis (f; WO2); Dropsy (f; HDN; NPM; UPW); Dysentery (f; NPM; UPW; ZUL); Dysmenorrhea (f; ZUL); Earache (f; DAW; KAB); Edema (f; JFM); Epistaxis (f; HDN); Erysipelas (f; KAB); Fever (f1; DAW; HDN; IED; X10641181); Filariasis (1; X10953224); Fits (f; HDN); Fracture (f; WO2); Gastrosis (f1; HDN; X16469462); Gonorrhoea (f; HDN; NPM; ZUL); Headache (f; HDN; UPW; WO2); Hemorrhoids (f; HDN; NPM); Hepatosis (f; ZUL); High Blood Pressure (1; HDN; WO2; ZUL); Hydrocele (f; WO2); Impotence (f; AUS); Inappetence (f; UPW); Infection (1; HDN; UPW; ZUL); Inflammation (f1; HDN; VOD; X3613609); Insomnia (1; AUS); Itch (f; UPW); Lumbago (f; KAB; UPW); Myositis (f; NPM); Nausea (f; HDN); Nephrosis (f; AUS; ZUL); Neurosis (f; HDN; UPW; WO2); Obesity (f; WO2); Ophthalmia (f1; KAB; ZUL); Orchitis (f; UPW; WO2); Otitis (f; HDN); Pain (f1; DAW; HDN; VOD); Palsy (f; KAB); Parasites (1; X16151739); Pediculosis (1; WO3); Phthisis (f; NAD); Pulmonosis (f; KAB; UPW); Rheumatism (f; HDN; UPW; VOD); Sick-Cell (1; WO3); Snake Bite (f; KAB); Sores (f; HDN; UPW; ZUL); Spasms (f1; HDN; WO2); Sprains (f; NPM); Stings (f; KAB); Swelling (f; HDN; JLH; NPM; UPW); Syphilis (f; HDN; UPW); Tumors (f; DAW; JLH); Ulcers (1; X16469462); VD (f; HDN; NPM; UPW); Worms (f; KAB; ZUL); Wounds (f; UPW).

### Dosages:

FNFF = ! Young foliage and shoots reportedly edible (IED; JFM; NPM; WOI).

- Argentinians use parched seed, ground like coffee and boiled, for arthritis and rheumatism (AUS).
- Asian Indians paste the leaves on tumors (JLH).
- Dominican Caribs use leaf tea as beverage and bath for inflammation (VOD).
- Guineans, Nigerians, Senegalese, and Ubangi use the leaves for tumors (JLH).
- Madagascans, believing the roots aperient, diaphoretic, diuretic, and emetic, take for amenorrhea, bleeding piles, erysipelas, gonorrhoea, intestinal worms, and rheumatism (KAB).
- Native Hispaniolans used the root decoction and poultice for rheumatic pain (VOD).

- Nepalese use the plant juice for asthma, dropsy, fever, gonorrhoea, hemorrhoids, muscular swellings, neurosis pain, and sprains (NPM).

**Downsides:**

Saponins in the plant may irritate sensitive people (JFM). As of July 2007, the FDA Poisonous Plant Database listed six titles alluding to toxicity of this species.

**Extracts:**

Ethanol extract inhibited induced gastric ulcers (200–600 mg/kg), increased gastric glutathione, decreased alkaline phosphatase activity, showed *in vitro* hydroxyl radical scavenging, and inhibited lipid peroxidation (X16469462). Aqueous extract mildly macrofilaricidal for *Brugia pahangi* (X10953224). Ethanol and n-hexane extracts of powdered whole plant (400 mg/kg) strongly antipyretic (X10641181). Ethanol extract of aerial parts antiinflammatory (500 mg/kg) in carrageenan-induced rat paw edema (X3613609).

**PAPAYA (*Carica papaya* L.) +++**

CARICACEAE



**Illustrations:**

p 551 (CR2); p 375 (L&W); pl 440 (KAB)

**Synonyms:**

*Carica hermaphrodita* Blanco; *C. mamaja* Vellero; *C. peltata* Hook. & Arn.; *C. posoposa* L.; *C. vulgaris* DC.; *Papaya carica* Gaertn.; *P. papaya* Karsten; *P. sativa* Tussac; *P. vulgaris* A. DC.; fide (POR; USN).

**Common Names:**

Aanabahe Hindi (Arab.; Iran; DEP; KAB); Ababaya (Cuba; AVP); Abapaye (Car.; VOD); Adiba (Adang; Awuna; Ewe; KAB); Aduba (Awuna; KAB); Akpakpa (Ga; KAB); Alélé (Car.; VOD); Amba Hindi (Arab.; Iran; DEP; EFS; KAP); Ambridaru (Mun.; KAB); Amritdaru (Mun.; KAB); Andakharbuja (Hindi; KAB); Apoare (Amarakaeri; Huachipaeri; MD2); Arandkharbuza (Pun.; Yunani; DEP; KAP); Arandkharkati (Sanskrit; ADP; KAP); Arandkharpuza (Pun.; MPI); Arbol de Melón (Nic.; AVP); Arbre à Melon (Fr.; AVP); Arbre de Melon (Fr.; EFS); Arnema (Mooshar; NPM); Babaco (Ecu.; AVP); Babaz (Arab.; AVP); Banu Uchchhe (Sanskrit; NAD); Bappangayi (Tulu; KAB); Bappayi (Tel.; ADP; DEP; MPI; NAD); Bekpe (Dahomey; AVP); Betek (Malaya; POR; TAN); Betek Petik (Tembu; IHB); Betik

(Malaya; POR); Bobbasi (Tel.; ADP; NAD); Boppayi (Ap.; Tel.; DEP; SKJ; WOI); Bororfere (Ashanti; KAB); Borosow (Fanti; KAB); Brofre (Twi; NAD); Brorfeneni (Ashanti; KAB); Brosownini (Ashanti; KAB); Brosownyin (Fanti; KAB); Budibaga (Fulah; KAB); Capaidso (Culina; EGG; RAR); Capayas (Tag.; Vis.; KAB); Chamburo (Brazil; Ecu.; AVP; ROE); Chibda (Guj.; Pun.; DEP; KAB); Chibhado (Sin.; KAB); Chirbhita (Sanskrit; KAB); Chomchhadersi (Rai; NPM); Dindapabita (Mun.; KAB); Doeum Lahong (Khmer; POR); Dudu (Vn.; POR); Erandachirbhita (Sanskrit; KAB); Eranda Kakdi (Guj.; DEP); Erandakarkatee (Sanskrit; MPI); Erandakharbujah (Urdu; DEP); Esíe (Ese'ejá; MD2); Faifai (Arab.; GHA); Fan Kua (China; EFS); Fan Mu Gua (China; Pin.; DAA; POR); Ffafy (Arab.; GHA); Fifaiy (Arab.; GHA); Figuier des Iles (Fr.; KAB); Figuier des Negres (Fr.; KAB); Fruta Bomba (Cuba; Ma.; JFM; RyM); Gandul (Java; IHB); Gedang (Malay; Sunda; IHB; POR); Gonda (Sudan; AVP); Goppe (Kan.; KAB); Gor (Krobo; KAB); Gwanda (Hausa; KAB); Gwanda Masar (Hausa; KAB); He-I (Cashibo; EGG); Higuierón (Arg.; AVP); Houng (Laos; POR); Ihong (Khmer; POR); Jhadchibhadi (Guj.; KAB); Jomejaradaru (Mun.; KAB); Kai Du Du (Cochin; DEP; KAB); Kapaya (Tag.; POR); Kappalam (Mal.; KAB; MPI; NAD); Kappanga (Mal.; WO2); Karmmou (Mal.; KAB); Karmussu (Mal.; ADP); Katela Gantung (Java; IHB); Kates (Java; Malay; IHB; POR); Kath (Guj.; DEP; KAB); Katha (Sin.; KAB); Katha Chibudo (Sin.; NAD); Katha Chiphado (Sin.; DEP); Kavunaagasi (Tur.; EFS); Kaydudu (China; KAP); Kepaya (Jakun; IHB); Ketalah (Malay; POR); Kharbuza (Pun.; DEP); Kuntaia (Jakun; IHB); Kupaayo (Cashibo; EGG); Lapaya (Tag.; POR); Lawkaw (Thai; IHB); Lechosa (Dor.; Ven.; AVP; JFM; L&W); Lerdo (Cr.; AVP); Lohong Si Phle (Cam.; KAB); Loko (Thai; POR); Machuiuk (Ma.; JFM); Madana Anapakaya (Tel.; DEP); Madananaba (Tel.; NAD); Madhurnakamu (Tam.; NAD); Ma Kuai Thet (Thai; POR); Malakaw (Thai; IHB); Malako (Thai; POR); Malakor (Thai; POR); Mamao (Brazil; L&W; RAR); Mamão (Brazil; Por.; USN); Mamaoeiro (Brazil; RAR); Mamoeiro (Brazil; L&W); Mamón (Arg.; Ma.; Sp.; AVP; JFM; POR; USN); Mamona (Arg.; AVP); Mandié (Sudan; AVP); Manguié (Sudan; AVP); Mapanya (Ma.; JFM); Mapaza (Malagasy; KAB); Meloenboom (Dutch; POR); Melon des Tropiques (Fr.; KAB); Melonenbaum (Ger.; KAP; NAD; POR; USN); Melonowiec Wlasciwy (Pol.; POR); Melontræ (Den.; POR); Melon Tree (Kan.; KAB); Melón Zapote (Mex.; Sp.; KAB; JFM; POR); Mewa (Danuwar; Gurung; Magar; Majhi; Nepal; Newari; Sunwar; Tamang; Tharu; NPM); Mokka (Japan; TAN); Mou Koua (China; KAB); Mu Kua (China; EFS); Naima (Amahuaca; RAR); Naimi (Amahuaca; EGG); Naimpi (Amahuaca; MD2); Nalikadala (Sanskrit; KAB); Nampucha (Cashibo; EGG; RAR); Napucha (Pano; EGG; RAR); Noompucha (Cashibo; EGG); Olocoton (Nic.; IHB); Omrytobhonda (Oriya; KAB); Pabita Daru (Mun.; KAB); Palo de Barril (Cr.; AVP); Pampucho (Cashibo; EGG); Pangi (Kan.; KAB); Papai (Bom.; Guj.; DEP; MPI); Papaia (Brazil; Por.; Rus.; POR; USN); Papáia (It.; AVP; EFS; POR); Papaija (Hindi; DEP); Papáio (It.; AVP); Papaiya (Japan; POR); Papaja (Malaya; Sur.; AVP; EFS; JFM); Papajabaum (Ger.; USN); Papajapflanze (Ger.; USN); Papao (Dwi.; Ma.; JFM); Papaw (Ma.; Sin.; DEP; JFM); Papay (Dwi.; Ma.; Vi.; JFM; L&W); Papaya (Cutch; Den.; Eng.; Ger.; Japan; Korea; Malay; Mar.; Peru; Sp.; Tag.; Ven.; CR2; KAP; L&W; LOR; MDD; NPM; POR; USN; WOI); Pa Pa Ya (Korea; POR); Papayabaum (Ger.; EFS; POR); Papayaboom (Dutch; EFS); Papaya Calentano (Col.; AVP); Papaye (Fr.; POR); Papayer (Fr.; Guad.; Haiti; Mart.; AVP; EFS; JFM; POR; USN); Papayer Commun (Fr.; NAD); Papayero (Sp.; Ven.; EFS; POR; USN); Papayi (Guj.; Hindi; ADP; WOI); Papayo (Arg.; Sp.; L&W; POR); Papayo Calentano (Col.; L&W); Papeeta (Hindi; WOI); Papeya (Ben.; DEP; KAP; SKJ; WOI); Papia (Guj.; DEP); Papiitaa (Hindi; Urdu; POR); Papita (Bhojpuri; Hindi; Mar.; ADP; NPM); Papol (Sin.; DEP); Pappaiya (Ben.; DEP); Pappali (Tam.; DEP; KAP; POR); Pappangayi (Kan.; NAD); Pappaya (Malaya; DEP); Pappayam (Ker.; Mal.; NAD; SKJ); Pappayi (Tam.; ADP; DEP; SKJ); Pappya (Mal.; ADP); Papué (Amuesha; Yanessa; EGG; RAR); Paputa (Sin.; DEP; KAB); Parangi (Kan.; MPI); Parangimara (Kan.; WOI; WO2); Parangiyamanakku (Tam.; KAB); Paranji (Tam.; NAD); Parvati Padi (Sanskrit; NAD); Pasali (Tam.; NAD); Pawpaw (Aust.; Uk.; Vi.; Wi;

JFM; L&W; NPM; USN; VOD); Paza (Malagasy; KAB); Pepiya (Ben.; Hindi; DEP); Pepol (Sin.; KAB; KAP); Peragi (Kan.; NAD); Peranji (Kan.; DEP); Perinji (Kan.; DEP); Phengse (Limbu; NPM); Piha (Bol.; Chacoba; DLZ); Pimbo Si (Burma; DEP); Piranji (Kan.; NAD); Pohunbetek (Malaya; KAB); Popai (Dec.; Mar.; DEP; MPI); Popaiyah (Hindi; India; EFS; KAP); Popayer Commun (Fr.; KAP); Popoo (Japan; POR); Popoya (Oriya; KAB); Poppayephthal (Kon.; MPI; NAD); Prisha (Sanskrit; ADP); Pucha (Shipibo/Conibo; EGG; RAR); Put (Bel.; Maya; BNA; KAB); Pyé Papay (Creole; Haiti; VOD); Sa Kui Se (Thai; POR); Santong (Lepcha; NPM); Sapayas (Bol.; Chiquitano; DLZ); See Sija (Ese'ēja; MD2); Simbo Si (Burma; DEP; KAB); Tapaculo (Cr.; Pan.; AVP; IED); Teng Ton (Thai; IHB); Thimbaw (Burma; DEP; KAB; POR); Thimbawthi (Burma; DEP); Thinbaw (Burma; DEP; POR); Timbo Si (Burma; DEP); Trai Du Du (Annam; KAB); Tree Melon (Eng.; JFM); Ulmak (Ulwa; ULW); Ulumak (Ulwa; ULW); Voapaza (Betsimisaraka; KAB); Wan Shou Kuo (China; EFS); Wild Papaya (Bel.; BNA); Yevudiba (Awuna; KAB).

### Activities:

Abortifacient (f1; 60P; DEP; PH2; VAG; VOD; WBB); Allergenic (1; PHR; PNC); Alterative (f; ADP; DEP; MPI); Amebicide (1; TRA; WO2); Analgesic (1; PH2; TRA); Anthelmintic (f1; 60P; DEP; GHA; KOM; PH2; SKJ; TRA; WBB; X16161026); Antiaggregant (1; KAP); Anticoagulant (1; WO2); Anticonvulsant (1; 60P; TRA; WO3); Antidiabetic (f; WO3; X17040567); Antidiphtheric (1; TRA); Antiedemic (1; KOM; PH2); Antifertility (1; 60P); Antihypertensive (1; TRA); Antiimplantation (1; TRA); Antiinflammatory (1; APA; TRA); Antioxidant (1; APA; X15455084; X16691628); Antiseptic (f1; 60P; APA; EGG; PH2; TRA; WBB); Antispasmodic (1; TRA; VOD); Antitetanic (1; TRA); Antitumor (1; 60P; TRA; WO2); Antiulcer (1; APA; PH2); Ascaricide (1; AAB; KAP; WBB); Bactericide (1; AAB; APA; TRA; X15040064); Bronchodilator (1; TRA); Candidicide (1; AAB; APA; TRA); Cardiac (f; WBB); Cardiodepressant (1; AAB; IHB; KAP); Cardiotonic (1; HHB); Carminative (f; GHA; KAB; KAP; WBB); Cholagogue (f; DEP); Chronotropic (1; TRA); Cicatrizant (1; TRA); Contraceptive (1; TRA; WO3; X15808797); Depurative (f; VOD); Digestive (f1; APA; GHA; PNC; WAM); Diuretic (f1; DEP; KOM; MPI; TRA; WBB; X11297849); Ecbolic (f; KAP); Embryotoxic (1; PH2); Emmenagogue (f; DEP; IHB; JFM; KAP; PH2; WBB); Enterodepressant (1; MPI); Expectorant (f; KAB); Febrifuge (f; HHB; JFM; WBB); Fibrinolytic (1; PH2); Fungicide (1; AAB; APA; HHB; TRA); Gram(+)icide (1; X15040064); Gram(-)icide (1; X15040064); Hepatoprotective (f; EGG); Histaminic (1; X14971723); Hypotensive (f1; PR14:235; VOD; X17040567); IL-6-Inducer (1; X16367938); Immunostimulant (f1; APA; X16367938); Lactagogue (f; DEP; EGG; MD2; NMH; VOD); Laxative (f; DEP; HHB; JFM; WBB); Molluscicide (1; WO2); Myorelaxant (1; 60P; PR14:235; WO3); Nematocide (1; WO2); Orexigenic (f; KAB); Oxytocic (f; MPI; VOD); Pectoral (f; JFM; WO2); Proteolytic (1; 60P; APA; TRA; WBB); Purgative (f; AAB); Rubefacient (f; DEP); Sedative (1; KOM; WO3); Sterilant (1; WO3); Stomachic (f; DEP); Taeniicide (f; WBB); Teratogenic (1; PH2); Tranquilizer (1; TRA); Uterorelaxant (1; PR14:235; TRA); Uterocontractant (f1; VOD; WO3); Vasoconstrictor (1; VOD); Vasorelaxant (1; X15138017); Vermifuge (1; APA; KOM; VAG; X16161026); Vulnery (1; AAB; PNC; X16367938).

### Indications:

Abscesses (f; KOM); Acariasis (f; RAR); Acne (1; WO2); Adenopathy (f; JLH; KOM); Adnexitis (f; KOM); Aging (f; KOM); Amebiasis (1; KAP; WOI; WO2); Anemia (f; VOD); Angina (f; ROE); Anorexia (f; KAB; KOM); Anthrax (f; WBB); Arteriosclerosis (f; KOM); Asthma (f; HHB; IHB; JFM; NPM; VOD; WBB); Autoimmunity (1; WO3); *Bacillus* (1; AAB); Beri-Beri (1; WO2); Bilioussness (1; KAB); Bites (f; NPM); Boils (f; WBB); Bronchosis (f; JFM; KOM; MD2; PH2; VOD); Burns (f; IHB; KOM; WBB); Callus (f; JFM); Cancer (f; JLH); Cancer, uterus (f; CRC; JLH); *Candida* (1; AAB; WO2); Carbuncles (1; WO2); Car-

diopathy (f; KOM; RAR); Caries (f; MD2); Cellulite (1; FT71:S73); Chest Colds (f; VOD); Cholecystitis (f; KOM); Cholera (f; DEP); Circulatory Disorder (f; KOM); Colds (f; JFM; VOD); Colic (f1; EGG; WO2); Conjunctivitis (f; PNC); Constipation (f; AAB; DEP; EGG; KOM); Corns (f; AAB; DEP; JLH); Coughs (f; JFM; MD2; PH2); Cramps (1; TRA); Croup (f; NAD); Cystitis (f; WBB); Dehydration (f; VAG); Depression (f; KOM); Dermatitis (f; JFM; KAP; NPM; ULW; WBB; WO2); Diabetes (f; WO3; X17040567); Diarrhea (f; GHA; JFM); Diphtheria (f; DEP); Diskitis (1; JAD); Duodenitis (f; PH2); Dyscrasia (f; KOM); Dysentery (f; KAP; WBB); Dyslactea (f; EGG; KAP; MD2); Dysmenorrhea (f; WO3); Dyspepsia (1; DEP; KOM; PH2; PNC; WAM); Dysuria (1; JFM; ROE; X11297849); Earache (f; WBB); Eczema (f; DEP); Edema (1; KOM; PH2); Elephantiasis (f; DEP); Enteritis (f; EGG; JFM; PHR; PH2; RAR; VOD; WBB); Epilepsy (1; WO3); Epithelioma (f; JLH); Fistula (f; KOM); Flu (f; KOM; MD2); Fontanelle (f; ZIM); Freckles (f; ADP; APA; JFM; NPM; SKJ); Fungus (f1; AAB; HHB; WO2); Furuncles (f; TRA); Gas (f; KOM); Gastrositis (f; KAP; PHR; PH2; VOD); Glossitis (f; ADP); Gonorrhoea (1; TRA; VAG; WBB); Heartburn (1; FNF; TGP); Hematoma (f; KOM; WO2); Hemoptysis (f; ADP); Hemorrhoids (f; DEP; KAP; KOM; PH2; WBB; WOI); Hepatitis (f; AAB; DEP; JFM; KAP; KOM; MD2); High Blood Pressure (f1; AAB; JFM; TRA; VOD; WBB; X17040567); HIV (1; WO3); Hodgkin's Disease (f; KOM); Hysteria (f; VOD); Infection (1; AAB; KOM; PHR); Infertility (1; APA); Inflammation (f1; APA; JFM; KOM; PHR; PH2; TRA; WO2); Insanity (f; KAB); Insomnia (1; WO3); Jaundice (f1; WBB; WO2; X17040567); Kidney Stones (f; ADP); Leukemia (1; KOM; WO2); Lymphoma (1; KOM; WO2); Malaria (f; JFM; ROE); Mange (f; EGG); Metastasis (f; KOM); Metrorrhagia (f; KAB); Miscarriage (f; PR14:235); *Mycobacterium* (1; WO2); Mycosis (1; ROE; TRA); Myositis (f; IHB); Nausea (1; WAM); Nephrosis (f; ADP; EGG; HHB; WBB); Neuralgia (f; DEP); Neurasthenia (f; KOM); Neurosis (f; KOM); Obesity (1; FT71:S73; KAB); Odontitis (1; WO2); Ophthalmia (f; ROE); Pain (1; CRC; DEP; NAD; PH2; TRA); Pancreatitis (f; PHR; PH2); Parasites (f1; 60P; PHR; PH2; ULW; WAM); Pharyngitis (f; KOM; NAD); Phlebitis (f; KOM); Proctitis (f; KOM); Protistocides (1; X14735356); Psoriasis (f; ADP; APA; DEP); Respiritis (f; KOM; ULW; WBB); Rheumatism (f; KOM; NPM; VOD; WBB); Ringworm (f1; APA; DEP; JFM; KAP); Roemheld Syndrome (f; KOM); Roundworm (f; DEP; KAP); Sciatica (f; MD2); Sclerosis (f; JLH); *Shigella* (1; AAB); Snake Bite (f; MD2); Sore Throat (f; JFM; KOM); Splenomegaly (f; DEP; JFM; WBB); Splenitis (f; DEP; JFM; KAP); Sprains (f; VOD); *Staphylococcus* (1; AAB; ROE); Stings (f; DEP); Stomatitis (f; KOM); Stones (f; KAB; PH2); Syphilis (f; HHB; WBB); Tachycardia (f; EGG; RAR); Tapeworm (f; DEP); Thirst (f1; CRC; WOI); Thrombosis (f; KOM); Toothache (f; ROE); Tuberculosis (1; TRA; WO2); Tumors (f; JLH; KOM); Ulcers (f; PHR; PH2); Urethritis (f1; KOM; ROE; TRA; VOD); UTIs (f; PH2); Vaginitis (f; APA); Varicosis (f; KOM); VD (f; AAB; JFM; WBB); Warts (f; AAB; JFM; ROE; WBB); Water Retention (f; JFM); Worms (1; DEP; PH2; PNC; VAG; X16161026); Wounds (f1; KOM; WBB; X15455084; X16367938); Yaws (f; WBB; WO2); Yeast (1; AAB; APA; TRA; WO2). (Commission E, listing more than a dozen folkloric indications, p. 361, does not even recommend papain, because of insufficient proof of efficacy) (KOM).

### Dosages:

FNFF = !!! Ripe fruits eaten raw; green fruits cooked like a vegetable or pickled; peppery seeds used in salad dressing; leaves and flowers steamed and eaten; young stems and pith of older stems cooked and eaten; leaves wrapped around tough meats will tenderize the meat; Jamaicans wrap tough pork in green fruit husks (FAC; IED). 1–2 tsp dry leaf/cup water (APA); 1–2 gr powdered dry leaf (KAP); 2–4 gr dry latex (KAP); 0.5–1 g seed powder (KAP); 1–3 tsp fruit juice (APA); 1–2 tbs fresh fruit (PED); 1.5–3 g dry fruit (PED); 2.5–5 ml elixir of papaya (PNC); 2.5–5 ml glycerin of papain (PNC); 10–50 mg papain (APA); “Papain may be effective in high doses (daily dose = 1,500 mg)” (KOM).

- Asian Indians apply the latex to uterus as ecbolic (DEP).
- Asian Indians take dry salted fruits in splenomegaly (DEP).
- Asian Indians suggest 1 tbsp each papaya milk and honey mixed well with 3–4 tbsp boiling water, taken for worms when cool, following in 2 hr with castor oil with lime juice or vinegar (DEP).
- Asians apply leaves topically to elephantiasis, neuralgia, and other pains (DEP; IHB).
- Barbadians scoop out a green fruit, mix the green meat with candle grease and coconut oil, replace and baked in ashes, drinking the contents for a cold (JFM) (No thanks).
- Bermudans and Caicos Islanders take young unpeeled fruit for blood pressure (JFM).
- Cubans give sweetened seedless green fruit decoction in milk to children with diarrhea and enterosis (JFM).
- Curaçaoans take green fruit decoction to lower blood pressure, others decocting 1 leaf (JFM).
- Haitians chew the antiscorbutic seeds for hysteria (VOD).
- Haitians say that one dose of any part of the plant is enough to remove intestinal worms (VOD).
- Latinos and Asian Indians use the latex for bleeding piles, bronchosis, cough, diphtheria, dyspepsia, hemoptysis, hepatomegaly, and urinary ulcers (DEP; JFM).
- Madre de Dios Peruvians plaster heated leaves on painful waist (sciatica) (MD2).
- Middle Americans consider flower decoction emmenagogue, febrifuge, and pectoral (JFM).
- Peruvians suggest papaya for acariasis, asthma, bronchosis, caries, constipation (½ fruit), cough, enteritis, flu, hepatitis, and tachycardia (DAV; EGG; MD2; RAR).
- Peruvians suggest the liquid from the seeds as hepatoprotective (EGG).
- Surinamese boil 1 leaf down from 0.5 liters to 0.25 liters water, taking for malaria (JFM).
- Various ethnics apply latex topically for cancer, corns, dermatosis, elephantiasis, epithelioma, indurations, psoriasis, ringworm, sclerosis, and warts (DEP; JFM; JLH).

#### Downsides:

Class 1 (AHP). None known (WAM). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). But they give no designated dosage (JAD). Admitting no risks for the leaf, Commission E disallows for lack of proof of efficacy (KOM). Commission E was rather negative in its discussion of papain for worms: “Due to the insufficiently proven efficacy of its use in the treatment of worm infestation and the risks associated, as well as the availability of treatment alternatives, the use of raw papain/papain cannot be recommended” (KOM). May interact with warfarin (PH2). There are reports of perforated esophagus following overingestion of fruits (APA). Papain can cause severe stomach inflammation if taken internally, dermatosis externally; allergic reactions including asthma possible (PH2). Not to be used during pregnancy (PH2). As of July 2007, the FDA Poisonous Plant Database listed 42 titles alluding to toxicity of this species.

#### Extracts:

See accounts for papain in Father Nature's Farmacy on-line database: <http://www.ars-grin.gov/duke/> and Blumenthal et al. (1998). Papaya juice not lethal up to 1,500 mg/kg, thus considered nontoxic; antioxidant activity (80%) at 17.6 mg/ml, comparable to alpha-tocopherol (X16691628). Papaya seeds can induce reversible sterility without affecting libido or causing other reactions (several studies in rats) (WO3; X15808797). Papaya seed extract anthelmintic, mainly due to the compound benzyl isothiocyanate

(X16161026). Seeds antibacterial, inhibiting Gram-positive and Gram-negative organisms (X15040064). Alcoholic leaf extract at ca. 10 mg/kg ipr rat a dose-dependent myorelaxant sedative, effective against petit mal and gran mal episodes (WO3). Root extracts (orl rat 10 mg/kg) diuretic, ca. 75% of hydrochlorothiazide (X11297849). Carpaine cardiotoxic (HHB). Cyanide-papain (like pepsin) renders some virus pustules noninfectious; papain inactivates lethal doses of ricin, strychnine, and tetanus (HHB). LD50 crude fruit extract = 325 mg/kg ipr mus (PR14:235).

## PANAMA-HAT-PALM (*Carludovica palmata* Ruiz & Pav.) ++

### CYCLANTHACEAE



#### Notes:

The leaves are used to make hats, baskets, brooms, fly swatters, etc. (IED).

#### Common Names:

Alagua (Col.; AVP); Api Ttara (Peru; RAR; SOU); Appi Ttara (Peru; RAR; SOU); Atadero (Pan.; AVP); Ba Na Ma Cao (China; POR); Bombonaje (Peru; Sp.; LOR; MDD; POR; USN); Bombonassa (Brazil; AVP); Bume (Cashibo; RAR); Carludovica (Sp.; POR); Carludovique Palmée (Fr.; POR; USN); Chidra (Cr.; Sp.; AVP; USN); Doyodoy (Candoshi; SOU); Guachivan (Pan.; AVP); Hat Palm (Eng.; IED); Hiraca (Sal.; AVP); Iraca (Col.; AVP; SAR); Jipi (Ecu.; AVP); Jipijapa (Brazil; Cuba; Ecu.; Sp.; AVP; POR; RAR; USN); Junco (Guat.; Hon.; AVP); Kuskin (Cuna; IED); Lucaica (Ecu.; AVP); Lucatero (Col.; IED); Lucua (Col.; AVP; IED); Murrapo (Col.; AVP); Naguala (Pan.; IED); Nibi (Sa.; RAR); Oropo (Choco; IED); Palma de Sombrero (Sp.; POR; USN); Palma Jipijapa (Sp.; USN); Palmier de Panama (Fr.; POR); Palmilla (Guat.; AVP); Panama-Hat-Palm (Eng.; POR; USN); Panamapalme (Den.; Ger.; POR; USN); Panamapalmu (Fin.; POR); Panama Screwpine (Eng.; POR); Panamasou (Japan; POR); Panga (Kubeo; SAR); Pinya Brava (Sa.; RAR); Pita (Cr.; AVP); Portorico (Pan.; AVP; IED); Querori (Culina; RAR); Sabalet (Cuna; IED); Sombonaza (Col.; IED); Soso (Cuna; IED); Toquilla (Peru; Sp.; AVP; RAR; USN); Tuna (Cr.; AVP); Vomu (Amahuaca; RAR); Yaco Sisa (Sa.; RAR); Yacu Caspi (Sa.; RAR); Yaro Curo (Makuna; SAR).

#### Indications:

Bruises (f; DAV); Sores (f; DAV); Stings (f; DAV).



**Dosages:**

Young leaves or growing points called “nacumas” are eaten, with a flavor suggesting asparagus, as a salad. Inner portions of the lower leafstalks and the berries are also quite edible. Rhizomes are used as a salad and potherb. In 1538, Juan de Vadillo and his conquistadores lived for days on nothing but “iraca” for food (IED; FAC).

**BATS' SOUARI (*Caryocar glabrum* (Aubl.) Pers.) ++****CARYOCARACEAE****Illustrations:**

fig 59 (DAV)

**Synonyms:**

*Souari glabra* Aubl. (basonym); fide (USN).

**Notes:**

The inner bark is apparently caustic, like that of the “nina caspi,” leaving scars (SAR).

**Common Names:**

Almendra (Peru; RAR); Almendra de Bajo (Sp.; USN); Almendro Colorado (Peru; Sp.; LOR; MDD); Barbasco (Col.; SAR); Barbasco de Monte (Col.; SAR); Barbasco Propio (Col.; SAR); Bat's Souari (Eng.; USN); Bois Savonneux (Fr.; USN); Cabeleira (Brazil; MPB); Castaña Espinosa (Col.; SAR); Echuruka (Miranya; SAR); Ê hó (Barasana; SAR); Ejuray (Witoto; SAR); Kamahaw (Puinave; SAR); Kamanaree (Tukano; SAR); Kon (Kubeo; SAR); Omaquirarus (Chiquitano; DLZ); Pasotiqui (Ashaninka; RAR); Pequi (Bol.; DLZ); Pequiarana (Brazil; MPB; RAR; SOU); Pequiarana da Terra Firme (Brazil; MPB); Pequiarana Vermelha (Brazil; MPB); Pequi da Areia (Brazil; MPB); Pursh (Maku; RAR); Takó (Andoke; SAR); Tua Uo (Siona; SAR); Uranà (Chiriguano; DLZ). (Nscn; diacritically prepared).

**Activities:**

Piscicide (f; DAV); Vesicant (f; DAV).

**Indications:**

Dysentery (f; MPB); Dysmenorrhea (f; SAR).

**Dosages:**

FNFF = !! Nuts said to be delicious and nutritious. Ash from burned bark used for dysentery (MPB).

**Downsides:**

Pulp of green fruit intoxicates fish, hence used in fishing (DAV; RAR). As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**CASEARIA (*Casearia sylvestris* Sw.) ++****FLACOURTIACEAE****Illustrations:**

fig 172 (L&W)

**Synonyms:**

*Anavinga samyda* Gaertn.; *Casearia parviflora* Willd.; *C. punctata* Willd.; *Samyda parviflora* Sw.; fide (MPG; PCS).

**Common Names:**

Aguedita Macho (Cuba; JTR); Anime (Ma.; JFM); Apiá Acanocu (Brazil; MPG); Avatí Timbatí (Arg.; L&W); Barredera (Sal.; AVP); Bugrinho (Ma.; JFM); Burro Ka'a (Par.; MPG); Café Bravo (Brazil; MPB; MPG); Café de Fraile (Brazil; MPG); Café del Diablo (Brazil; MPG); Café del Matorral (Brazil; MPB; MPG); Cafeeiro do Mato (Brazil; JFM); Cafeillo Cambagui (Ma.; JFM); Cafeillo Cimarrón (Ma.; JFM) Café Silvestre (Brazil; RAI); Cafetillo (Dor.; AHL); Cambagui (Arg.; AVP); Casearia (Eng.; Scn.; AH2); Cimarrón (Pr.; JTR); Comina de Culebra (Nic.; JTR); Congonhas de Bugre (Brazil; RAI); Corallillo (Guat.; AVP); Corta Lengua (Pan.; Sp.; TBC); Crackopen (Eng.; Ocn.; Saba; AH2); Cucaracho (Ma.; JFM); Dondequiera (Col.; L&W); Donquiera (Col.; AVP); Erva de Bugre (Brazil; MPG); Erva de Pontada (Brazil; RAI); Erva de Teiú (Brazil; MPB); Fructa de Sahyra (Ma.; JFM); Guacatonga (Brazil; RAI); Guaçatunga (Brazil; AVP; MPB); Guasatonga (Brazil; JTR); Guayabilla (Mex.; JFM; JTR; PCS); Guayabillo Blanco (Ma.; JFM); Guayalito (Ven.; AVP); Guazatumba (Arg.; AVP); Guesito (Ma.; JFM); Herva de Bugre (Brazil; JTR); Hierba de Lagarto (Brazil; MPG); Huesito (Ma.; JFM); Jia Colorado (Cuba; L&W); Juabón (Cuba; JTR); Juba Rompehueso (Cuba; L&W); Laurel Espada (Pr.; AVP); Limoncillo (Ven.; AVP); Língua de Teiú (Brazil; MPB); LLorón (Cuba; JTR); Macapiritu (Ma.; JFM); Machacomu (Ma.; JFM); Mahajo (Col.; AVP); Naranjillo (Ma.; JFM); Pabito (Ven.; AVP); Palo Blanco (Pr.; L&W); Palo Carré (Dor.; AHL); Palo Cotorra (Cuba; JTR); Palo de Cotona (Mex.; AVP); Palo de Cotorro (Ma.; JFM); Palo de la Cruz (Ma.; JFM); Palo Rajador (Arg.; L&W); Palo Rejador (Arg.; AVP); Papelite (Haiti; AVP); Pau de Lagarto (Brazil; MPB); Pelo de Acure (Ma.; RAI); Petumba (Ma.; JFM); Piraquina (Sp.; RAI); Plumo (Ma.; JFM); Punteral (Ven.; L&W); Ratóon (Sp.; RAI); Rompehueso (Cuba; JTR); Sacmuda (Guat.; AVP; L&W); Sacumba (Ma.; JFM); Saritan (Ma.; JFM); Sarna de Perro (Cuba; Pr.; JTR); Sarnilla (Cuba; JTR); Sishi-Coey (Huitoto; Peru; SOU); Sombra de Armada (Sp.; USN); Sombra de Armado (Hon.; AVP); Sombra de Conejo (Hon.; Sp.; AVP; USN); Tacasito (Ven.; L&W); Tasajo (Cuba; JTR); Té de Fraile (Brazil; MPG); Tortolito (Ven.; L&W); Ucho Caspi (Sp.; RAI); Vacatunga (Brazil; MPG); Vassatonga (Brazil; JFM); Wild Coffee (Trin.; AVP); Wild Sage (Bel.; AVP; USN).

**Activities:**

Abortifacient (1; MPG); Analgesic (f1; MPB; MPG; RAI; X17399925); Antacid (f; RAI); Antifeedant (1; RAI); Antihemorrhagic (1; X11126749; X11126749; X11600149; X12577517);

Antiinflammatory (f1; MPB; RAI; X15994044); Antimyotoxic (1; X11126749; X12577517); Antiophidic (f1; MPB); Antirheumatic (f; MPB); Antisarcotic (1; RAI); Antiseptic (f1; RAI); Antispasmodic (f; MPG); Antitumor (1; RAI; X2092935); Antiulcer (f1; MPB; RAI; X2255209; X15994044); Antivenom (1; X11126749; X11600149; X12577517; X17540522); Antiviral (f1; RAI); Aphrodisiac (f; MPG); Bactericide (1; MPG); Cicatrizant (f1; MPG; JTR); Depurative (f; MPB; RAI); Diaphoretic (f; MPG); Diuretic (f; JTR); Febrifuge (f; MPB); Fungicide (1; RAI); Gastroprotective (= cimetidine) (f1; MPB; RAI); Hemostat (f; RAI); Phospholipase-A2-Inhibitor (1; X11126749; X11600149; X12577517; X17540522); Tonic (f; MPB); Vulnery (f; MPB).

### Indications:

Arthritis (f; MPB); *Bacillus* (1; MPG); Bacteria (1; MPG); Bleeding (f1; RAI; X11126749; X11126749; X11600149; X12577517); Burns (f; RAI); Cancer (f1; MPB; RAI; X2092935); Cancer, colon (f1; RAI); Cancer, lung (f1; RAI); Cancer, ovary (f1; RAI); Dermatitis (f; JTR); Diarrhea (f; MPB); Eczema (f; MPG; RAI); Fever (f; MPB); Flu (f; RAI); Fungus (1; RAI); Gastrosis (f1; MPB); Hematoma (f; MPG); Hemorrhage (1; X11126749; X11600149; X12577517); Herpes (f; MPB; MPG; RAI); HIV (1; RAI); Impotence (f; MPG; RAI); Indigestion (f; RAI); Infection (f1; MPG; RAI); Inflammation (f1; MPB; MPG; RAI; X15994044); Leprosy (f; RAI); Mycosis (1; RAI); Pain (f1; MPB; MPG; RAI; X17399925); Paralysis (f; MPG); Rheumatism (f; MPB); Sarcoma (1; RAI); Scrofula (f; JTR); Snake Bite (f1; MPB; RAI; X11126749; X11600149; X12577517; X17540522); Sores (f; JTR); Spasms (f; MPG); Syphilis (f; JTR; RAI); Tumors (f1; MPB; RAI; X2092935); Ulcers (f1; MPB; MPG; RAI; X2255209; X15994044); VD (f; JTR; RAI); Viruses (f1; RAI); Wounds (f1; MPB; MPG; JTR; RAI).

### Dosages:

FNFF = ! ½ cup leaf tea 2–3×/day (RAI); 1–2 g capsule/tablet 2×/day (RAI).

- Bolivians use for bleeding, cancer, dermatosis, inflammation, pain, snake bite, tumor, and wounds (RAI).
- Brazilians use for blood, diarrhea, chest ache, eczema, fever, flu, herpes, impotence, inflammation, leprosy, rheumatism, snake bite, syphilis, worms, and wounds (MPG; RAI).
- Colombians use for dermatosis, snake bite, sore, and wounds (MPG; RAI).
- Cubans apply leaves to chest for chest colds, especially when there are chills (JFM; JTR).
- Paraguayans use for eczema, itch, paralysis, rheumatism, spasm, and syphilis (MPG).

### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

### Extracts:

LD50(EO) = 1,792 g/kg??? (MPG). Aqueous extract inhibits phospholipase A(2) toxins of *Bothrops* and *Crotalus* venom, and neutralized the hemorrhagic and myotoxic action (X11126749; X11600149; X12577517; X17540522). Hydroalcoholic plant extract antinociceptive in mice tests (300 mg/kg). Leaf EO inhibited 90% of stress-induced gastric ulcer, while cimetidine inhibited 70% (X15994044); ethanolic leaf extract inhibited gastric secretion (57.5 mg/kg rat) more effectively than misoprostol (500 µg/kg), but less effective in reducing hydrochloric acid secretion; LD50 greater than 1,840 mg/kg, 32 times higher than the antiulcerogenic ED50 = 57.5 mg/kg (X2255209). Antitumor clerodane diterpenes, casearins A-F, isolated from the leaves (X2092935).

**INDIAN LABURNUM (*Cassia fistula* L.) +  
CAESALPINIACEAE**

**Illustrations:**

fig 72 (L&W); pl 350 (KAB)

**Notes:**

Little and Wadsworth (1964) note that the medicinal properties were known even to the ancient Egyptians. Dr. Max Beauvoir, who reportedly has a Haitian remedy for HIV, says the fruit is used but must be used the day it is prepared (VOD).

**Common Names:**

Abúrucha Gániesi (Garifuna; Nic.; IED); Ahalla (Sin.; NAD); Ahilla (Sin.; DEP); Alas (Tam.; SKJ); Alash (Pun.; SKJ); Ali (Pun.; WO2); Amaha (Sanskrit [1 of 42]; KAB); Amaltas (Dec.; Hindi; Nepal; Urdu; Yunani; ADP; DEP; KAB; KAP; NPM; TAN; WO2); Amaltash (Nepal; SUW); Amargo Caspi (Peru; RAR); Amultas (India; AVP); Amulthas (Hindi; KAP; NAD); Amulthus (Hindi; MPI); Ancherhan (Tag.; KAB); A Po Le (China; KAB); Appai (Tam.; SKJ); Ar (Tam.; KAB); Aragina Aragine (Kan.; SKJ); Aragvadha (Ayu.; Ocn.; Sanskrit; ADP; AH2; KAB; OFF); Aragvadhamu (Ap.; SKJ); Aragwadha (Sanskrit [1 of 12]; MPI); Arakvadum (Sanskrit; NAD); Arghhada (Sanskrit; KAP); Argho (Danuwar; NPM); Arogyashimbi (Sanskrit; SKJ); Arrakuvadam (Tam.; WO2); Ashok (Tharu; NPM); Babuni Daun Pesar (Malaya; EFS); Bahava (Ker.; Mah.; Mar.; ADP; DEP; MPI; SKJ; WOI); Bahoo (Malaya; AVP); Balay (Vis.; KAB); Balla (Guj.; SKJ); Banag (Kurku; DEP); Banarsota (Danuwar; NPM); Bandarlati (Ben.; ADP); Bandarlati (Ben.; DEP; WO2); Bandarlauri (Hindi; WO2); Bandolot (Cachar; DEP; KAB); Bangru (Kirku; KAB); Bâton Casse (Fr.; Haiti; AVP; USN); Bâton Kas (Creole; Haiti; AHL; VOD); Bavo (Kon.; KAB); Bereksa (Malaya; IHB); Bobondèlan (Sunda; IHB); Bo Cap Muoc (Ic.; KAB); Bondalati (Ben.; SKJ); Bondèl (Sunda; IHB); Bonurlata (Palamow; KAB); Bonurlati (Palamow; DEP); Boya (Mar.; WO2); Briksha (Chepang; NPM); Bubundèlan (Sunda; IHB); Bumbungdèlan (Sunda; IHB); Bundarlati (Ben.; MPI); Buvasigna (Malaya; AVP); Byadivata (Sanskrit; SKJ); Cacho de Ouro (Por.; GMJ); Cañafistol (Dor.; AHL); Cañafístola (Cuba; Dor.; Sp.; AHL; AVP; RyM); Cañafístula (Peru; Sp.; EGG; USN); Cañafístula de Purgante (Dor.; AHL); Cañafístula de São Tomé (Dor.; Por.; AVP); Cañafístula Mansa (Dor.; AHL); Canafistula Verdadeira (Por.; GMJ); Canéfica (Fr.; Guad.; Mart.; AVP); Canéficer (Fr.; St. Bart.; AVP; USN); Canéficer (Fr.; Guad.; Mart.; AVP); Canificier (Fr.; KAB); Canna Fistula (Por.; KAB); Cass (Creole; Haiti; VOD); Casse (St. Bart.; AVP); Casse Canéfica (Fr.; EFS); Casse des Antilles (Fr.; GMJ); Casse des Boutiques (Fr.; AVP); Casse Espagnole (His.; AHL); Casse Fistuleuse (Fr.; USN); Casse Habitant (Fr.; Guad.; Mart.; AVP; L&W); Casse Officinal (Fr.; AVP); Casse z'Habitant (Creole; Haiti; VOD); Cassia (It.; KAB); Cassia in Canna (It.; AVP); Cassia Pulp (Eng.; VOD); Cassia Stick Tree (Jam.; AVP; L&W); Cassie Purgative (Fr.; KAP); Cassieroer (Den.; Swe.; AVP); Chácara (Dor.; AHL); Chaiya Prúk (Thai; IHB); Chang Ko Tse Chu (China; AVP); Ch'ang Kuo Tsü Shu (China; EFS); Chhamkani (Nasirabad; KAB); Chieh Ming Tzu (China; KAP); Chimkani (Mar.; Mp.; Sin.; DEP; KAB; SKJ); Cuahnacaztli (Mex.; KAB); Dodhri (Mp.; SKJ); Dong-Ga (Tibet; NPM); Donka (Tibet; KAP); Dranguli (Java; AVP); Drumstick (Eng.; NPM); Dulang (Malaya; IHB); Dunras (Kharwar; DEP; KAB); Ebisugusa (Japan; KAP); Ehela (Sin.; Gamala; Guj.; ADP; WOI); Garmal (Guj.; DEP); Garmala (Guj.; SKJ); Garmalo (Guj.; Porebunder; KAB; WOI); Girimala (Hindi; WOI); Girmala (Dec.; Guj.; KAB); Glemhendo (Tamang; NPM); Gnookyee (Burma; KAP); Gnoo Kyee (Burma; DEP); Gnooshway (Burma; KAB); Golden Shower (Eng.; Ocn.; AH2; CR2; GHA; NPM; SKJ); Golden Shower Senna (Eng.; L&W); Gouden Regen (Ma.; JFM); Guayaba Cimarrona (Dor.; AHL); Haridaru (Mun.; KAB; WO2); Hema-pushpa (Sanskrit; SKJ); Hiyar Sambar (Yemen; GHA); Honalu (Assam; WO2); Huai Hua

Ch'ing (China; EFS); Indian Laburnum (Eng.; Scn.; Trin.; ADP; AH2; NPM); Irjviruttam (Tam.; NAD); Itola (Nwp.; KAB); Jaggarwaw (India; KAB); Jaggra (Gond.; KAB); Jamba (Mah.; SKJ); Kakkaemara (Kan.; MPI; NAD); Kakkayi (Kon.; MPI; NAD); Kakke (Kan.; Kar.; DEP; SKJ; WOI); Kān (Thai; IHB); Kanéfis (Creole; Haiti; VOD); Kanikonna (Mal.; WO2); Karangal (Jammu; Pun.; DEP; WO2); Kari (Kol.; DEP); Kas Dous (Creole; Haiti; VOD); Kasé (Creole; Haiti; VOD); Kassia (Rus.; AVP); Kassiapenlen (Dutch; AVP); Kassia Powidlna (Pol.; AVP); Kas Zabitan (Creole; Haiti; VOD); Kathauldhind (Arab.; DEP; KAB); Kavani (Sri.; KAB); Kéyok (Java; IHB); Kharroub Hende (Arab.; AVP); Khayar Shambar (Arab.; NAD); Khela (Sin.; KAP); Kheyarshanbar (Arab.; Iran; KAP); Khiyarechiga (Iran; KAB); Kiar (Pun.; KAB); Kiar Shambar (Arab.; AVP); Kiar Shembé (Tur.; AVP); Kilvali (Hindi; SKJ); Kirala (Dehra Dun; Hindi; KAB; SKJ); Kirwaha (Jhansi; WO2); Kitola (Kum.; KAB; WO2); Kitwali (Mp.; SKJ); Klohoh (Java; IHB); Klohur (Java; IHB); Konde (Tulu; KAB); Kondrakayi (Ap.; Tel.; MPI; NAD; SKJ); Konna (Ker.; Mal.; NAD; SKJ); Konnak Kaya (Malaya; DEP); Konnei (Tam.; ADP; SKJ; WOI); Konraih-Kay (Tam.; DEP); Kri-tamalam (Ker.; SKJ); Lluichu Vainilla (Peru; RAR); Makpazang (Lushai; WO2); Mandarlata (Nepal; KAB); Marianunut (Kuna; Pan.; IED); Nripadruma (Sanskrit; EFS; NAD); Nuruic (San.; DEP; KAB); Oude Mannetjes Dropboom (Dutch; EFS); Péyok (Java; IHB); Pijp Cassia (Dutch; EFS); Piyok (Java; IHB); Po Luo Men Zao Jia (Pin.; DAA); Pudding Pipe Tree (Eng.; AVP; NPM; SKJ); Pudding Stick (Eng.; KAP); Pundali (Khond; KAB) Purgierkassie (Ger.; AVP); Purging Cassia (Eng.; Ocn.; AH2; NPM); Purging Senna (Eng.; Ocn.; AH2); Raella (Baigas; DEP; KAB); Rajah Kayu (Malaya; IHB); Raja Prûk (Thai; IHB); Rajataru (Kan.; Sanskrit; ADP; WO2); Rajateru (Sanskrit; SKJ); Rajbirij (Nepal; DEP); Rajbrichya (Nepal; KAP) Rajbrik (Raute; NPM); Rajbriksha (Magar; Majhi; Nepal; Raj.; KAB; NPM; SUW); Raj Briksha (Nepal; DEP); Raj Brikshk (Kum.; DEP); Ramdanda (Lambadi; KAB); Reach Chhpus (Ap.; Tel.; ADP; SKJ; WOI); Rela (Reddi; KAB); Relagujju (Tel.; NAD); Rela Kayalu (Tel.; DEP); Rella (Saora; KAB); Rellachettu (Tel.; WO2); Rera (Gond.; DEP); Retama (Peru; RAR); Retama Común (Peru; RAR); Retamilla (Peru; RAR); Retamillo (Peru; RAR); Röhrenkassie (Ger.; USN); Rohrkassie (Ger.; KAP); Rörekassia (Den.; EFS); Samayâka (India; JLH); Sandali (Ben.; SKJ); Sandari (Oriya; DEP; SKJ); Sapakamu (Tel.; KAB); Saronrai (Tam.; KAP); Saturangulam (Mal.; KAB); Şember Hiyari Ağaci (Tur.; EFS); Sené ti Fèy (Creole; Haiti; VOD); Sharakonnai (Tam.; MPI; SKJ); Shonalu (Tripura; WO2); Shower of Gold (Eng.; AVP); Sim (Nwp.; DEP); Simara (Garhwal; WO2); Sinar (Hindi; SKJ); Sinara (Garhwal; KAB); Sonalu (Ben.; Garo; DEP; KAB); Sonari (Oriya; SKJ); Sonarli (Mp.; SKJ); Sonaru (Assam; SKJ); Sonawir (Mal.; Malaya; DEP; KAB); Sonhali (India; EFS); Sonndali (Ben.; KAP); Soondali (Ben.; NAD); Soturongulo (Oriya; KAB; WO2); Souali (Ben.; AVP); Sunaru (Assam; DEP); Sundali (Ben.; WOI); Suvarnaka (Sanskrit; ADP; DEP; SKJ; WOI); Svanannavriksha (Sanskrit; WO2); Syrinx (Greek; KAB); Tanggoli (Sunda; IHB); Tangguli (Java; IHB); Tènggulli (Java; Malaya; IHB); Tranggoli (Sunda; IHB); Trènggulli (Java; Malaya; EFS; IHB); Trukontai (Tam.; SKJ); Tung Guli (Java; AVP); Warga (Oudh; DEP; KAB); Wurstroehrenbaum (Ger.; KAB).

### Activities:

Abortifacient (f; ADP; JFM); Alexiteric (f; WO2); Allergenic (1; VOD); Amebicide (1; JAC7:405); Analgesic (1; JAF50:5042; MPI; WO2); Anthelmintic (f; WO2); Antidiabetic (f; X16242721); Antiinflammatory (f1; WO2); Antioxidant (1; JAF50:5042; X12188605; X15652272; X15991578); Antiperiodic (f; SKJ; WOI); Antiradicular (1; JAF50:5042); Antisecretory (f; WO3); Antiseptic (1; PH2; X16678369); Antitumor (f1; ADP; X16242721); Antitussive (1; JAF50:5042); Antiviral (1; ADP; PH2; WO2); Aperient (f; EFS); Astringent (f; EGG; SKJ; WO2); Bactericide (1; JAF50:5042; MPG; X12608640; X16678369); Demulcent (f; ADP); Dentifrice (f; WO2); Deobstruent (f; DEP); Emetic (f; KAB; WO2); Febrifuge (f; DEP; SKJ; SUW); Fungicide (1; WO2); Hemagglutinant (1; MPG); Hepatoprotective (f1; X15991578);

X16242721); Hypocholesterolemic (1; JAC7:405); Hypoglycemic (1; ADP; JAC7:405; MPG; WO2); Immunostimulant (1; MPG); Interferonigenic (1; MPG); Laxative (f1; GHA; HHB; MPG; NPM; PH2; VOD); Orexigenic (f; KAB; NPM); Polygalacturinase-Inhibitor (1; MPG); Protopectinase Inhibitor (1; MPG); Purgative (f1; ADP; EGG; JAF50:5042; NPM); Refrigerant (f; WO2); Stomachic (f; WO2); Tonic (f; NPM; SKJ; WO2); Uterotonic (1; WO3); Vermifuge (f; VOD); Vulnerary (f; X16242721).

### Indications:

Abscesses (f; WO2); Acne (f; ADP); Adenopathy (f; JLH; SKJ); Amebiasis (1; JAC7:405; WO2); Amenorrhea (f; ADP); Anorexia (f; KAB; PH2); Anthrax (f; WO2); Arthritis (f; SKJ; WO3); Asthma (f; NPM; WO2); *Bacillus* (1; MPG); Bacteria (f1; JAF50:5042; SKJ; X12608640; X16678369); Bilioussness (f; NAD; SKJ); Bites (f; ADP; NAD); Bleeding (f; WO2); Blindness (f; ADP); Blood (f; WO3); Boils (f; WO3); Burns (f; ADP); Cancer (f1; ADP; JLH; MPG); Cancer, abdomen (f; JLH); Cancer, colon (f; JLH); Cancer, face (f; SKJ); Cancer, gland (f; JLH); Cancer, liver (f; JLH); Cancer, throat (f; JLH); Cancer, uterus (f; JLH); Cardiopathy (f; ADP; NAD; WO3); Cerebrosis (f; DEP; WO2); Chilblains (f; ADP); Cholecocystosis (f; JFM); Colic (f; NAD); Conjunctivitis (f; WO2); Constipation (f1; ADP; AHL; DEP; GHA; HHB; PH2); Convulsions (f; ADP); Coughs (1; JAF50:5042; WO2); Delirium (f; ADP); Dermatitis (f; ADP; NPM; PH2; VOD; WO2); Diabetes (f1; ADP; JAC7:405; NPM; WO2); Diarrhea (f; NPM); Diphtheria (1; WO2); Dysentery (f; NPM; WO2; WO3); Dyspepsia (f; GHA); Dysuria (f; ADP; WO2); Eczema (f; NPM); Enterosis (f; WO2); Epilepsy (f; ADP; SKJ); *Escherichia* (1; MPG; WO3); Fever (f; ADP; PH2; SUW); Flu (f; AHL); Fracture (f; WO2); Fungus (1; WO2); Gas (f; NAD; PH2; VOD); Gastrosis (f; GHA; WO2); Giddiness (f; NPM); Gonorrhoea (f; WO2); Gout (f; DEP; VOD; WO2); Gravel (f; ADP); Hematemesis (f; JAF50:5042); Hematuria (f; ADP); Hemorrhoids (f; GHA); Hepatosis (f1; ADP; JLH; X16242721); Herpes (f; WO2); High Cholesterol (1; JAC7:405); High Triglycerides (1; JAC7:405); HIV (f; VOD); Hyperglycemia (1; JAC7:405; WO2); Impostume (f; JLH); Induration (f; JLH); Infection (f1; ADP; PH2; X16242721; X16678369); Inflammation (f1; JLH; VOD; WO2); Itch (f; PH2; WO2); Jaundice (f; ADP; PH2); Leprosy (f; WO2); Leukoderma (1; JAF50:5042); Malaria (f; SKJ); Migraine (f; WO3); Mycosis (f1; ADP; JAF50:5042); Nausea (f; SUW); Ophthalmia (f; ADP; WO2); Pain (f1; WO3; JAF50:5042; MPI; WO2); Paralysis (f; DEP; NAD; SKJ); Parasites (f; VOD); Pharyngosis (f; WO2); Pregnancy (f; VOD); Prickly Heat (f; JFM); Prurigo (f; WO2); Psoriasis (f; ADP); Pulmonosis (f; ADP; IED); Pustule (f; DEP); Pyoderma (f; ADP); Respirosis (f; IED); Rheumatism (f; DEP; SKJ; VOD; WO2); Ringworm (f; ADP; DEP); *Salmonella* (1; WO2); Sarcoma (1; MPG); Scabies (f; ADP); Snake Bite (f; NPM; SKJ; SUW); Sores (f; WO2); Sore Throat (f; NPM; WO2); *Staphylococcus* (1; MPG); Stings (f; JFM); Stomachache (f; WO2); Swelling (f; JLH; WO3); Syphilis (f; ADP; NPM); Tonsillitis (f; WO3); Toothache (f; NPM); Tuberculosis (f; SKJ; VOD); Tumors (f1; JLH; MPG); Typhus (1; WO2); Ulcers (f; GHA); Vaccinia (1; MPG); VD (f; ADP; NPM; WO2); Viruses (1; MPG; PH2); Wet Dream (spermatorrhea, nocturnal emissions) (f; WO2); Worms (f; VOD; WO2); Wounds (f; X16242721).

### Dosages:

FNFF = !! Flowers, leaves, and fruit pulp eaten, the latter possibly purgative (FAC). Seed eaten (TAN). 4–8 g fruit pulp (HHB; PH2).

- Asian Indians use the plant in clarified butter for glandular tumors (JFM).
- Curaçaoans take the leaf decoction for gallbladder problems (JFM).
- Dominicans suggest a floral syrup for constipation and flu (AHL).
- Haitians take salted leaf or fruit decoction for worms (VOD).
- Jharkandi natives take ca. 5 g endosperm with honey 2–3 mornings for diabetes (ADP).
- Nepalese take 4 tsp fruit pulp 3×/day for hematuria, diarrhea, and dysentery (NPM).

- Nepalese take 6 tsp teaspoons pulp paste 4x/day for giddiness (NPM).
- Oriyan women insert leaf paste into genitals once daily for a week for amenorrhea (ADP).
- Punjabi use root as febrifuge and tonic (DEP).
- Rhodesians use the plant for anthrax, blackwater fever, blood poisoning, dysentery, and malaria (KAB).
- Yunani consider leaves antiinflammatory, flowers purgative, the fruits abortifacient, demulcent, febrifuge, and purgative, using for chest, eye, liver, rheumatic, and throat complaints (KAB).

#### Downsides:

Not covered (AHP). Interaction of anthranoid laxatives reported (AEHD). Usual template caveats with anthranoids. Anthranoid-containing laxatives can be habit-forming; some contain compounds suspected of being cytotoxic, genotoxic, mutagenic, and even tumorigenic; epidemiological studies in Germany reveal that abusers of anthranoid laxatives have three times higher rate of colon carcinoma. The Germans seem to have muted the cancer scare. "Recent studies, however, have revealed no connection between the administration of anthracene drugs and the frequency of carcinomas of the colon." (PH2). As of July 2007, the FDA Poisonous Plant Database listed 19 titles alluding to toxicity of this species.

#### Extracts:

Oil from the pod was active against *Klebsiella* at 500 ppm (FT67(2):173). Pods have highest total phenolic, proanthocyanidin, and flavonoid contents and antioxidant potentials (TEAC = 992 +/- 0.4  $\mu$ M/g dry weight; FRAP = 811 +/- 23  $\mu$ M/g dry weight) (X12188605).

### PINK SHOWER (*Cassia grandis* L. f.) ++

#### CAESALPINIACEAE

#### Illustrations:

fig 64 (IED); p 371 (TTS); p 277 (LWW)

#### Synonyms:

*Bactrylobium grande* (L. f.) Horn.; *B. molle* (Vahl) Schrad.; *Cassia brasiliiana* Lam.; *C. mollis* Vahl; *C. pachycarpa* Lam.; *Cathartocarpus brasilianus* (Lam.) Jacq.; *Cathartocarpus grandis* (L. f.) Pers.; fide (MPG; USN).

#### Notes:

Thai traditional medicines treat gastrointestinal ailments with *C. grandis* which may partly explain the lower incidence of gastric cancer in Thailand (X14758718).

#### Common Names:

Appleblossom Cassia (Eng.; USN); Arbol de Fuego (Sp.; USN); Bacul (Ma.; TTS); Bâton Casse (Haiti; AHL; AVP); Beef Feed (Bel.; Eng.; BNA); Bocot (Ma.; JFM); Boocoot (Ma.; JFM); Bookut (Bel.; BNA); Bucut (Guat.; Maya; MPG); Buk-èt (Bel.; BNA); Cañadonga (Col.; AVP); Cañafistola (Brazil; Ven.; AVP); Cañafístula (Mex.; Pan.; AVP); Cañafístula Burrero (Ma.; Ven.; JFM; LWW); Cañafístula Cimarrona (Dor.; Pr.; AHL); Cañafístula de Castilla (Ma.; TTS); Cañafístula Grande (Ma.; JFM); Cañafístula Gruesa (Col.; Ma.; JFM; TTS); Cañafístula Macho (Ma.; Ven.; JFM; LWW); Cañafloote (Ven.; AVP); Cañandonga (Cuba; Ma.; JFM; RyM); Cañandonga de Masa (Ma.; JFM); Carago (Sal.; AVP); Caragua (Sal.; AVP); Caragië (Guat.; Sal.; AVP; MPG); Carámano (Nic.; AVP); Carambano (Nic.; AVP); Carao (Bel.; Guat.; Hon.; Pan.; AVP; BNA; MPG); Casia (Sp.; AVP); Casse (Haiti; AHL);

AVP); Casse de Brésil (Fr.; USN); Casse Espagnol (Haiti; AHL; AVP); Cássia (It.; AVP); Chá-cara (Dor.; AHL); Chácaro (Dor.; AHL); Coral Shower (Eng.; USN); Coral Showertree (Eng.; VOD); Geneuna (Por.; AVP); Gigantón (Ma.; JFM); Great Cassia (Ma.; JFM); Grobfrüchtige Kassie (Ger.; USN); Guayaba Cimarrona (Dor.; AHL); Horse Cassia (Eng.; Jam.; AVP; VOD); Jeneuna (Por.; AVP); Kas (Creole; Haiti; VOD); Kas Mawon (Creole; Haiti; VOD); Liquorice Tree (Eng.; TTS); Macut (Ma.; TTS); Maremare (Ma.; JFM); Marimari (Brazil; Peru; AVP; EGG; RAR); Marimary Preto (Ma.; JFM); Marimary Rana (Brazil; Ma.; JFM; LWW); Marimary Sano (Brazil; Ma.; JFM; LWW); Mucut (Guat.; JFM; MPG); Pink Shower (Eng.; FAC; JFM; USN); Pink Showertree (Eng.; VOD); Quauhuayo (Ma.; Mex.; JFM; LWW); Sandal (Ma.; JFM); Sándalo (Ma.; JFM; TTS; USN); Santal (Guat.; MPG); Saragundin (Cr.; IED); Sené Gran' Fèy (Creole; Haiti; VOD); Stinking Toe (Bel.; AVP; BNA; FAC). (Nscn; American entries diacritically prepared).

### Activities:

Abortifacient (f; MPG; VOD); Anticancer (f1; MPG; X14758718); Antiseptic (f; MPG); Anti-tumor (f; MPG); Astringent (f; EGG; MPG); Depurative (f; MPG); Diuretic (f; MPG); Expectorant (f; MPG); Febrifuge (f; MPG); Fungicide (1; MPG; X2056755; X8145577); Lactagogue (f; MPG); Laxative (f; MPB; TTS); Pectoral (f; MPG); Purgative (f; AHL; MPG); Sedative (f; MPG); Stimulant (f; MPG); Tonic (f; MPG).

### Indications:

Anemia (f; MPG); Arthrosis (f; VOD); Bleeding (f; MPG); Cancer (f1; MPG; X14758718); Colds (f; MPG); Constipation (f1; IED; MPB; TTS); Coughs (f; MPG); Dermatophyte (1; MPG; X2056755; X8145577); Dermatitis (f1; AHL; IED; MPB; MPG; VOD); Dysmenorrhea (f; VOD); Dyspepsia (f; VOD); Enterosis (f; IED; VOD); Epistaxis (f; MPG); Fever (f; MPG); Fungus (f1; MPG; X2056755; X8145577); Gastrosis (f; VOD); Hepatosis (f; MPG); Herpes (f; MPG); Hysteria (f; VOD); Infection (f1; MPG; VOD); Insomnia (f; MPG); Itch (f; VOD); Mange (f; MPG); Mucososis (f; MPG); Mycosis (f; MPG); Nervousness (f; VOD); Parasites (f; IED); Pulmonosis (f; IED); Respirosis (f; IED); Rheumatism (f; VOD); Sores (f; IED); Tinea (f; MPG); Urethrosis (f; MPG); Viruses (f; MPG); Vitiligo (f; MPG); Worms (f; IED); Wounds (f; MPG).

### Dosages:

NFFF = ! Pulp around seeds edible (IED; FAC; MPG).

- Costa Ricans use the fruit pulp, cooked in milk, for anemia (JFM).
- Cubans consider the fruit pulp abortifacient and useful in chest complaints (JFM).
- Cubans steep roots 3 days in alcohol as antiseptic for dermatosis and wounds (RyM).
- Dominicans suggest mashed leaves with bacon fat for veterinary skin ailments (AHL).
- Guatemalans fashion an unguent from the leaves for dermatosis, herpes, sores, tinea, and vitiligo (MPG).
- Guatemalans take bark/fruit/leaf decoction for anemia, cold, cough, hepatosis, hysteria, nosebleed, and urinary infections (MPG).
- Haitians apply macerated root tincture for skin infections (VOD).
- Haitians massage skin ailments, like itch, with crushed leaves (VOD).
- Haitians drink a beverage made from leaf, flower, fruit pulp, a/o seeds as an abortifacient and for hysteria and nervousness (VOD).
- Haitians take root and bark infusion for rheumatism (VOD).
- Haitians take salted leaf decoction for digestive tract ailments (VOD).
- Nicaraguans use fruit and leaf decoction, or juice syrup, orally or topically for constipation, respiratory-pulmonary disorders, worms and intestinal parasites, skin rashes, and sores (IED).



**Downsides:**

Too much of the edible fruit pulp is said to be abortifacient and certainly laxative. As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.

**Extracts:**

Methanolic leaf extract inhibited growth of HP strains MIC = 50.0 µg/ml.

## HAITI CATALPA (*Catalpa longissima* Jacq. Dum. Cours.) ++

### BIGNONIACEAE

**Illustrations:**

fig 50 (MPG); p 891 (LWW); p 67 (TRA)

**Synonyms:**

*Bignonia longissima* Jacq.; *B. pseudoquercus* Tuss.; *Macrocatalpa longissima* (Jacq.) Britton; fide (MPG; USN).

**Notes:**

Regrettably, McGuffin et al. (2000) have not assigned this species a standardized common name. Reluctantly I almost used the first offered by USN, "French oak," a double misnomer because it is neither French nor oak. "Haitian oak" might be better, or why not "Haitian catalpa"? After asking that question I found "Haiti catalpa" in Little et al. (1974) as an alternative common name in Puerto Rico. So I replaced "French oak" with "Haiti catalpa." The books say it is native to Jamaica and Hispaniola. For now I'll go with USN.

Many species of *Catalpa* are home to the famous "catalpa" worm, or "catawba" worm, great bait for fishermen they say. Leaves (of 5 species of *Catalpa*, but not necessarily this one) contain both catalpol and catalposide; larvae, pupae, and frass of the *Catalpa* sphinx, *Ceratomia catalpae*, contain only catalpol; adults contain no detectable iridoid glycosides. Amounts are highest in larvae and decline in pupal stage. When infested with feeding *Ceratomia*, the leaves produce more extrafloral nectaries which attract insects that attack or remove the eggs or larvae of the moth. (AUS; X14682517).

**Common Names:**

Bois Chêne (Haiti; AHL; AVP); Bois Chien (Haiti; AHL); Bois Radegonde (Creole; Haiti; VOD); Bwadchen (Creole; Haiti; TRA; VOD); Bwa d'Shenn (Creole; Haiti; VOD); Bwa Radegon (Creole; Haiti; VOD); Capá (His.; AHL; MPG); Chêne (Haiti; AHL; AVP); Chêne d'Amérique (Creole; Haiti; Mart.; LWW; VOD); Chêne des Antilles (Mart.; AVP); Chêne Haitien (Haiti; AHL); Chêne Noir (Mart.; LWW); Chêne Noir Pays (Creole; Haiti; VOD); Chenier (His.; AHL); Chènn (Creole; Haiti; VOD); Eiche (Ger.; AVP); Encina (Sp.; AVP); Encina de España (Cuba; Sp.; AVP; RyM); French Oak (Eng.; AVP; USN); Haiti Catalpa (Eng.; LWW); Jamaica Oak (Eng.; Jam.; AVP; VOD); Mastwood (Eng.; Jam.; AVP; USN); Oak (Eng.; AVP); Péndolo (His.; AHL; MPG); Poix Doux Marron (Fwi.; Mart.; JFM; LWW); Pyè Bwa d'Shen (Creole; Haiti; VOD); Quercia (It.; AVP); Radégonde (Guad.; Mart.; AVP; LWW); Roble (Dor.; Pr.; Sp.; AHL; AVP; MPG); Roble de Olor (Dor.; Sp.; AVP; JFM); Roble Dominicana (Pr.; LWW); Roble Prieto (Ven.; AVP); Spanish Oak (Eng.; VOD); Yokewood (Eng.; USN).

**Activities:**

Analgesic (f1; MPG; TRA); Antiinflammatory (1; TRA); Antiulcer (1; TRA); Astringent (f; JFM); Febrifuge (f1; TRA; VOD); Gastroprotective (1; TRA); Hemostat (f; VOD); Lipolytic (1; TRA); Uterorelaxant (1; TRA).

**Indications:**

Amenorrhea (f; MPG); Angina (f; JFM); Arthrosis (1; TRA); Asthma (f; VOD); Bleeding (f; AUS; DAW; VOD); Bleennorrhagia (f; AUS; DAW); BPH (1; TRA); Diarrhea (f; VOD); Dysentery (f; AUS; DAW; VOD); Fever (f1; AUS; DAW; TRA; VOD); Gastrosis (f1; MPG; TRA); Hemorrhoids (f; JFM; VOD); Hoarseness (f; VOD); Inflammation (1; TRA); Leucorrhea (f; VOD); Metrorrhagia (f; VOD); Obesity (1; TRA); Pain (f1; MPG; TRA); Rheumatism (1; TRA); Sores (f; VOD); Sore Throat (f; AUS; DAW; VOD); Stomachache (f1; MPG); Tonsilosis (f; VOD); Ulcers (1; TRA); Uterosis (f1; MPG; VOD); VD (f; VOD).

**Dosages:**

FNFF = ? Chinese species eaten (FAC).

- Dominicans take the bark decoction with other herbs for amenorrhea and gastralgia (MPG).
- Haitians apply crushed flower juice to hemorrhoids (VOD).
- Haitians take enemas or douche with bark or leaf decoction for diarrhea, dysentery, or VD (VOD).
- Haitians take leaf decoction for VD, with salt for asthma and fever (VOD).
- Haitians take leaf infusion with honey to relieve angina (JFM).
- Haitians take or gargle bark decoction or tea for dysentery, fever, hoarseness, leucorrhea, metrorrhagia, sore throat, tonsilosis, and uterine hemorrhage (VOD).
- Haitians wash hemorrhoids and sores with bark a/o leaf infusions (VOD).
- Hispaniolans suggest the astringent bark for bleennorrhagia, dysentery, fever, and hemorrhage (AHL).

**Downsides:**

Though used folklorically for amenorrhea, TRAMIL cautions against its use in amenorrhea due to pregnancy; the effects on pregnant women and the fetus are not known (TRA). They also advise against use by children, or after childbirth, and recommend no more than 14 days use by anyone (TRA). Their LD50 data, however, indicate very low, if any, toxicity (MPG; TRA). As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

Regrettably, the hydroalcoholic bark extract exhibited no antiplasmodial activity at doses of 1 g/kg subcutaneously in Swiss rats. LD50 = 13–21.5 g/kg ipr rat (MPG; TRA); LD50 = >25 g/kg orl rat (TRA).

## TAYUYA (*Cayaponia tayuya* (Vell.) Cogn.) + CUCURBITACEAE

**Synonyms:**

*Bryonia tayuya* Vell. (basionym); *Cayaponia piauhiensis*; *C. ficifolia*; *C. tayuya* (Vell.) Cogn.; *Trianosperma ficifolia*; *T. piauhiensis*; *T. tayuya* (Vell.) Mart.; fide (RA2; USN).

**Notes:**

First declared an official drug in the *Brazilian Pharmacopoeia* in 1929. Bolivians sometimes use the common name “tayuya” for *Melothria hookeri* (DLZ).

**Common Names:**

Abobrinha do Mato (Brazil; MPB; PIO; RAI); Anapinta (Brazil; MPB; PIO); Azogue de Brasil (Brazil; MPB); Cabeça de Negro (Brazil; MPB; RAI); Guardiã (Brazil; MPB; RAI); Raiz de Bugre (Brazil; MPB; PIO); Taioia (Brazil; RAI); Taiuíá (Brazil; MPB; RAI); Taiuíá

de Fruta Envenenada (Brazil; PIO); Tayuya (Eng.; Scn.; Sp.; AH2; RAI; USN); Tomba (Brazil; MPB; PIO; RAI).

### Activities:

Adaptogen (1; RAI); Alterative (f; RA2); Analgesic (f1; RAI); Antiarthritic (1; X16443215); Anticancer (1; RAI); AntiEBV (1; X7742799); Antiedemic (f; RAI); Antiinflammatory (f1; MPB; RAI; X15124085; X16443215; X17562851); Antioxidant (1; RAI; X2158783); Antiproliferant (1; X17562851); Antiradicular (1; RAI; X2158783); Antisyphilitic (f; MPB); Antitumor (f1; JLH; RAI; X7742799); Antitumor-Promoter (1; X7742799); Bitter (f; MPB); Cathartic (f; MPB); Choleric (f1; RAI); Depurative (f; MPB; PIO; RAI); Detoxicant (f; RAI); Digestive (f1; RAI); Diuretic (f1; RAI); Emetic (f; MPB); Laxative (f1; RAI); Nervine (1; RAI); NF-AT-Inhibitor (1; X17562851); Purgative (f; PIO); Stomachic (f; RA2); TNF-alpha-Inhibitor (1; X16443215); Tonic (f; RAI).

### Indications:

Acne (f; RAI); Amenorrhea (f; MPB); Anemia (f; RAI); Arthrosis (f1; RAI; X16443215); Backache (f; RAI); Boils (f; MPB); Cancer (f1; JLH; RAI; X7742799); Cancer, skin (1; RAI); Cholera (f; RAI); Conjunctivitis (f; RAI); Constipation (f1; PIO; RAI); Debility (f; RAI); Depression (f; RAI); Dermatitis (f; MPB; PIO; RAI); Diarrhea (f; RAI); Dropsy (f; RA2); Dysmenorrhea (f; RAI); Dyspepsia (f; PIO; RAI); EBV (1; X7742799); Eczema (f; MPB; PIO); Edema (f1; RAI; X15124085); Enterosis (f; PIO); Epilepsy (f; MPB; RAI); Erysipelas (f; PIO); Fatigue (f; RAI); Furuncles (f; PIO); Gastrosis (f; MPB; PIO; RAI); Gout (f; RAI); Headache (f; RAI); Hepatosis (f; RA2); Herpes (f; RAI); IBS (f; RAI); Indigestion (f1; RAI); Inflammation (f1; MPB; RAI; X15124085; X16443215; X17562851); Leprosy (f; RAI); Neuralgia (f; RAI); Oliguria (f; RAI); Ophthalmia (f; RAI); Pain (f1; RAI); Rabies (f; MPB); Rheumatism (f; MPB; RAI); Sciatica (f; RAI); Scrofula (f; RAI); Snake Bite (f; RAI); Sores (f; RAI); Splenosis (f; RAI); Stress (f1; RAI); Swelling (f1; RAI; X15124085); Syphilis (f; MPB; PIO; RAI); Tumors (f1; JLH; RAI; X7742799); VD (f; MPB; PIO; RAI); Ulcers (f; RA2); Wounds (f; RA2).

### Dosages:

NNFF = ? 1 cup root tea 2–3×/day; 1–2 g root powder 2–3×/day (RAI).

- Amazonians take for depression, edema, eyes, fatigue, and swelling (RAI).
- Brazilians take for amenorrhea, arthrosis, backache, boils, cholera, constipation, dermatitis, detoxification, diarrhea, dropsy, dysmenorrhea, dyspepsia, eczema, edema, enterosis, epilepsy, erysipelas, fatigue, furuncles, gout, headache, inflammation, leprosy, neuralgia, oliguria, pain, rabies, rheumatism, sciatica, scrofula, snake bite, syphilis, and tumors (PIO; RAI).
- Colombians use for sore eyes (RAI).
- Peruvians use for dermatoses, rheumatism, and snake bite (RAI).

### Downsides:

Slightly toxic at 500 mg/kg ipr, but not toxic orally at 2,000 mg/kg (RAI). As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

### Extracts:

Cayaonosides B, B3, D, D3b, and C2 significantly inhibited effects on Epstein-Barr virus (EBV) activation induced by the tumor promoter 12-O-tetradecanoylphorbol-13-acetate (X7742799). The triterpene dihydrocucurbitacin B, isolated from the root, inhibited delayed-type hypersensitivity reactions by suppressing T lymphocyte proliferation (IC50 = 1.48 μM) (X17562851), and reduced bone/tissue damage and swelling in induced arthritis in Lewis rats (X16443215).

**TRUMPET TREE (*Cecropia peltata* L.) ++**

**CECROPIACEAE**



**Illustrations:**

pl 206D (DAG); pl 20, p 67 (L&W)

**Synonyms:**

*Ambaiba peltata* O. Ktze.; *Cecropia arachnoides* Pitt.; *C. asperrima* Pitt.; *C. humboldtiana* Kl.; *C. obtusa* Cook & Collins.; *Coilotapalkus peltata* Hitchcock; fide (HH3).

**Notes:**

*Cecropia peltata* is rather the catchall name for many different species of this interesting, tropical, American genus of some hundred species. Some authors still use *C. peltata* as the major, or catchall, Central American/West Indian species (AHL; BNA); others, e.g., Beauvoir et al. (2001), note that what they are calling *C. peltata* is not what Linnaeus named *C. peltata*. Some Beauvoir et al. citations below (as VOD) apply to *C. schreberiana* Miq. which has a brown, rather than white, pith and lacks arachnoid pubescence at the apex of the perianth of pistillate flowers, as occurs in *C. peltata*. Frankly I don't think that many of the natives reporting the folklore, nor all the ethnobotanists, always distinguish the many species. The common names tend to be generic. Without voucher specimens, we may not always be sure which species were pharmacologically studied. In Mexico, Martinez (1969) says that all his data refer to *C. peltata* but seems to assume that "todas las Cecropias tienen propiedades analagos" (MAX). I'm inclined to think generically myself, but reluctant to push that belief on others. Both *C. peltata* and *C. obtusifolia* co-occur in parts of Central America, Mexico, northern South America *C. obtusa*, closely related, or identical, farther south). USN does not list *obtusifolia* for the West Indies. The two can be keyed as follows (TBC):

- Staminate spadices < 10 per peduncle, pistillate 2–4; leaves deeply (><sup>3</sup>/<sub>4</sub>) divided into 8–13 lobes . . . . . *C. obtusifolia*
- Staminate spadices > 11 per peduncle, pistillate 4–6; leaves shallowly (ca. 1/2) divided into 7–11 round tipped lobes . . . . . *C. peltata*

Taylor (2005) aggregates *C. obtusifolia*, *C. palmata*, and *C. peltata*, in her book (RAI). Judd et al. (2002) argues well for maintaining Cecropiaceae as a separate family, rendering the Moraceae monophyletic. *Cecropia* is closer to Urticaceae, sharing the restriction of laticifers to the bark, pseudomonocotylous gynoecia, basal ovules, and straight embryos.

I think I would try this species for diabetes, based on its folklore and its close relation to *Cecropia obtusifolia*, subject of a recent clinical study. For a 21-day double-blind trial, 22 patients (not responding well to conventional therapy) received leaf tea. Fasting blood glucose was lowered by 15.25%, cholesterol by 14.62%, and triglycerides by 42.0%. Leaves contain about 3,000 ppm chlorogenic acid (X15636168). Though I might try it myself, I might not suggest it to others because of a caution from Morton: Barbadians recommend the leaf infusion as a "sure cure" for diabetes. People with sugar in the urine may "recover" after the tea (perhaps

as measured by bush dip-sticks, or ants attracted to the urine), if maintaining a strictly green diet. But true diabetics, with high sugar levels in the blood, “may go into a diabetic coma” Caveat emptor (JFM).

From the PubMed database, one concludes that *C. obtusifolia* has been better studied, scoring 1 as antidiabetic (2), antihypertensive, bacteristat, cardiogenic, diuretic, hypocholesterolemic (2), hypoglycemic (2), hyperlipidemic, hypotensive, and hypotriglyceridemic (2).

Hollow trees, in Central America almost always inhabited by ants, but rarely so in the West Indies. Leaves a favorite food of the sloth, and, branches, hanging over rivers, a favorite retreat of the iguana. Fruits a favored food of howler monkeys. There is often a caterpillar on young trees which the Choco decapitate. This yields a red “magic-marker,” the resultant stain, said to be a little caustic, lasting longer than Genipa stain (!). Greater spear-nosed bats (*Phyllostomus hastatus*) call more often and fly in larger groups when feeding on a concentrated resource, balsa, *Ochroma lagopus*, flowers, in winter than on the more dispersed resource *Cecropia peltata* fruit in spring (X9480702).

### Common Names:

Ak'1 (Bel.; BNA); Ambai (Fr.; AVP); Ambaiba (Car.; VOD); Ambaiba des Caraibes (Fr.; HH3); Ambatí (Arg.; AVP); Ambaú (Arg.; AVP); Arvore da Pregoica (Por.; AVP; JFM); Bauna (Ma.; JFM); Boessi Papaja (Sur.; AVP); Bois Canon (Fr.; Fr. Guiana; Grenada; Guad.; Mart.; Trin.; AHL; AVP; RAI); Bois Trompette (Fr. Guiana; Guad.; Haiti; Mart.; AHL; AVP; RAI); Bokon (Shipibo/Conibo; MD2); Bosh Papaya (Sur.; AVP); Bospapaja (Sur.; L&W); Cetico (Peru; AVP); Chancarro (Mex.; AVP); Cho Otz (Bel.; AAB; BNA); Coilotopalo (Ma.; HH3); Congo Pump (Br. Guy.; AVP); Coulequim des Caraibes (Fr.; HH3); Coulequin (Fr.; AVP); Embauba (Sa.; RAI); Eporro (Choco; Col.; Pan.; IED); Float Wood (Eng.; AVP); Grayumbe (Dor.; AHL); Grayumbo (Dor.; AHL); Grayumo Hembra (Pr.; L&W); Guarima (Ma.; JFM); Guarimbo (Ma.; JFM); Guarumbo (Mex.; Ocn.; Sp.; AH2; AVP); Guarumo (Bel.; Col.; Cr.; Ecu.; Guat.; Sp.; AAB; AVP; DAG; L&W; USN); Guarura (Ven.; AVP); Igarata (Br. Guy.; Guat.; AVP); Imbaiba (Ma.; JFM); Imbauba (Brazil; Peru; AVP; HH3; RAI); Indian Snakewood (Eng.; FAC); Ix-Coch (Ma.; HH3); Kanonenbaum (Ger.; HH3); Kaóje (Ese'ija; MD2); Llagruma (Sp.; AVP); Llagrumo Hembra (Pr.; Sp.; AVP); Nilaula (Cuna; Pan.; IED); Orumo (Col.; AVP); Palo de Loja (Arg.; AVP); Po Hór (Bel.; BNA); Pop-a-Gun (Bar.; AVP; USN); Pumpwood (Eng.; L&W); Saruma (Ma.; HH3; JFM); Shankón (Amahuaca; MD2); Snake Wood (Eng.; AVP; USN); Tacuna (Peru; AVP); Taóje (Ese'ija; MD2); Tongko (Amarakaeri; Huachipaeri; MD2); Tongo (Matsigenka; MD2); Tree Weeds (Eng.; AVP); Trompeta (Mex.; AVP); Trompetenbaum (Ger.; USN); Trompette (Haiti; AHL); Trompette Séche (Haiti; VOD); Trompettier (Haiti; AHL); Trumpet (Ocn.; Sp.; AH2); Trumpet Tree (Jam.; Pr.; AVP; JLH; USN); Trumpet Wood (Eng.; Vi.; AVP); Tuaromo (Bel.; BNA); Umaubeira (Par.; AVP); Umbauba (Brazil; Por.; AVP; RAI); Umbauba Branca (Por.; AVP); Umbauba Brava (Por.; AVP); Wanasora (Br. Guy.; AVP); Waruma (Bel.; BNA); Wild Papaw (Dwi.; AVP); Yabruma (Dor.; AVP); Yagruma (Cuba; Sp.; AVP; RyM); Yagruma Hembra (Cuba; Dor.; AHL; AVP); Yagrumo (Cuba; Dor.; Pr.; Sp.; Ven.; AVP; USN); Yaruma (Dor.; AVP); Yaruma Hembra (Dor.; AVP); Yarumo (Col.; AVP); Yongol (Peru; RAR). (Nscn; American entries diacritically prepared).

### Activities:

ACE-Inhibitor (1; RAI); Analgesic (f1; RAI); Antiasthmatic (f; AHL); Antiinflammatory (f1; RAI; VOD); Antiobesity (f; RAI); Antioxidant (f; RAI); Antiradicular (f; RAI); Antispasmodic (f1; RAI); Astringent (f1; AHL; HH3); Bactericide (f1; RAI; X16483385); Cardiogenic (f1; AHL; DAW; JFM; MAX); CNS-Depressant (f; RAI); Diuretic (f1; HH3; JFM; MAX; RAI); Emmenagogue (f; AHL; RAI); Expectorant (f; RAI); Fungicide (f1; HH3; RAI; X161407); Hemostat (f; JFM); Hepatogenic (f1; AAB; RAI); Hypoglycemic (f1; RAI; X16177966); Hypotensive (f; RAI; X1704056); Laxative (f; RAI); Lipolytic (f; RAI); Mucolytic (f; RAI); Secretolytic (f; RAI); Vulnerary (f; VOD).

**Indications:**

Amenorrhea (f; AHL); Arthritis (f; AAB); Asthma (f; AHL; JFM; MAX; RAI; VOD); Bacteria (f1; RAI; X16483385); Bilioussness (f; RAI); Bites (f; RAI); Bleeding (f; JFM; MD2; VOD); Bleennorrhagia (f; AHL); Bronchosis (f1; AHL; RAI); Bruises (f; RAI); Callus (f; DAW; RAI); Cancer (f; JFM); Cardiopathy (f1; AHL; DAW; JFM; MAX; RAI); Childbirth (f; JFM; MD2; RAI); Chorea (f; AHL); Colds (f; MD2); Constipation (f; RAI); Corns (f; HH3; JLH); Coughs (f; EB30:115; RAI); Dermatoses (f; RAI; VOD); Diabetes (f1; AAB; JFM; MAX; RAI; X16177966); Diarrhea (f; AHL; RAI; VOD); Dropsy (f; AAB; MAX); Dysentery (f; EB30:115; VOD); Dysmenorrhea (f; IED); Dyspepsia (f; IED); Dysuria (f; RAI); Edema (f; HH3; JFM; VOD); Epilepsy (f; VOD); *Escherichia* (1; RAI); Fever (f; EB30:115; JFM; MD2; VOD); Flu (f; JFM; MD2); Fracture (f; RAI); Fungus (f1; AAB; HH3; RAI; X161407); Gangrene (f; VOD); Gas (f; VOD); Gastroses (f; RAI); Glossosis (f; RAI); Glycosuria (f; JFM); Gonorrhoea (f; JFM; RAI); Hematoma (f; RAI); Hepatoses (f; AAB; JFM; MAX; RAI); Herpes (f; AHL; HH3; RAI); High Blood Pressure (f1; AAB; RAI; X1704056); Hoarseness (f; JFM); Hyperglycemia (f1; RAI; X16177966); Infection (f1; AAB; HH3; RAI; X161407; X16483385); Inflammation (f1; RAI; VOD); Mycoses (1; AAB; HH3; RAI); Nephroses (f; AAB; RAI); Nervousness (f; JFM); Neuroses (f; JFM); Obesity (f; MAX; RAI); Oliguria (f1; RAI); Pain (f1; IED; MD2; RAI); Parkinson's (f; JFM; RAI; VOD); Pertussis (f; JFM; RAI); Pneumonia (f; RAI); *Pseudomonas* (1; RAI); Pulmonoses (f1; HH3; RAI); Respiroses (f1; RAI); Rheumatism (f; AAB; RAI); *Salmonella* (1; RAI); *Shigella* (1; RAI); Snake Bite (f; JFM); Sores (f; JFM; VOD); Sore Throat (f; AAB; JFM); Spasms (f1; RAI); Splenosises (f; VOD); *Staphylococcus* (1; RAI); Stings (f; JFM; MD2; RAI); Stomatosis (f; RAI); Strangury (f1; JFM; MAX); Swelling (f; AAB; JFM; VOD); Toothache (f; JFM); VD (f; JFM); Viruses (f; AHL; HH3); Warts (f; AHL); Wounds (f1; AHL; MD2; RAI; VOD; X16543209).

**Dosages:**

FNFF = ! Facciola's reports sound tastier than I find the plants: "Young buds are eaten as a potherb. The leaves and flowers were used by black Americans with their broths" (FAC). Leaves smoked like tobacco (AAB). Facciola (1998) is even more generous with *C. palmata*; ripe fruits reportedly eaten fresh or used as filling for cakes. Native Americans eat the pith (IED). Segundo, one of my Amazonian guides, called me the 5-toed sloth when he saw me eating the young buds, clearly a decent survival food. Peruvians make "cal" or lime to ingest with their coca chew from the ashes of available *Cecropia* leaves, I suspect unaware of the taxonomic differences, but perhaps aware of culinary differences. 1 cup leaf tea 2–3×/day (RAI); 2–3 g powdered leaf capsule/tablet 2×/day.

- Argentinians take a cup/day (1–2 leaves in 1 liter water) for 3 months for chorea, neuroses, and Parkinson's disease (JFM).
- Barbadians recommend the leaf infusion as a "sure cure" for diabetes (JFM).
- Belizeans use leaf tea (1 leaf steeped 20 min in 2 cups water, 1 cup 2×/day/3 days) as diuretic, hepatotonic, and sedative, for diabetes, dropsy, high blood pressure, infection, nephroses, and I'll add Syndrome X (AAB).
- Belizeans use leaves in steams for rheumatism, bathing swellings in leaf decoctions (AAB).
- Brazilians use the diuretic leaf decoction for bronchosis and cough, the plant for asthma bleeding, bronchitis, cancer, cardiopathy, chagas, congestion, cough, diabetes, diarrhea, dysentery, edema, flu, gonorrhoea, hemorrhoids, high blood pressure, malaria, Parkinson's, pneumonia, respiroses, rheumatism, snake bite, sores, UTIs, vaginosis, warts, and wounds (JFM; RAI).
- Colombians use for cardiopathy, childbirth, dysmenorrhea, and Parkinson's (RAI).

- Cubans boil 1 fresh leaf, taking 1 cup decoction every 1–2 hr for 1–2 weeks for asthma, using the decoction as a mouthwash for toothache, and taking the plant for abscesses, asthma, bile disorders, callus, cough, dermatosis, dysentery, dyspepsia, edema, fever, gonorrhea, hepatitis, herpes, pain, sores, VD, and warts (JFM; RAI).
- Cubans, Guianans, Jamaicans, Martiniquans, and Mexicans apply latex to corns and warts (JLH).
- Dominicans inhale the boiled leaf tea steam for bronchitis and asthma; the leaf tea for cough (AHL).
- Dominicans view the bark as antidiarrheal, astringent, and emmenagogue, using bark tea for blennorrhoea (AHL).
- Guadelupans take leaf/bark infusion as an enema in gonorrhea; the young leaf decoction for hepatitis and swelling (JFM).
- Guatemalans take new shoot decoction as antipertussic, cardiotoxic, and diuretic, using also for asthma, atherosclerosis, diabetes, edema, gonorrhea, and rheumatism (JFM; RAI).
- Haitians apply the caustic latex from the bark to open callus, warts, and wounds (VOD).
- Haitians in Marbial Valley use leaves in baths to alleviate gas (VOD).
- Haitians take the leaf decoction for asthma, epilepsy, fever, Parkinson's, and splenosis (VOD).
- Jamaicans take leaf decoction for hoarseness, nervousness, and sore throat (JFM).
- Mexicans take for asthma, bites, burns, calluses, cardiopathy, childbirth, chorea, corns, coughs, cystosis, diabetes, diarrhea, dysentery, edema, fever, fracture, hepatitis, inflammation, nephrosis, neurosis, obesity, pulmonosis, warts, and wounds (JFM; RAI).
- Nicaraguans take for abscesses, aches, bleeding, dermatosis, diarrhea, dysmenorrhea, dyspepsia, enterosis, fever, gastrostis, headache, hepatitis, and pain (IED; RAI).
- Peruvians take for bleeding, cardiopathy, dermatosis, diarrhea, fever, oliguria, Parkinson's, and wounds (RAI).
- Trinidadans take leaf decoction for cough, fever, and flu; the plant for bronchosis, high blood pressure, and snake bite (JFM; RAI; X1704056).
- Venezuelans take for constipation, heart ailments, inflammation, and wounds (RAI).

**Downsides:**

Not studied (AHP; KOM; PHR). Do not take in pregnancy; consult practitioner before taking in cardiac conditions or diabetes (RAI). As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.

**Extracts:**

Aqueous and ethanolic plant leaf extract exhibited wound healing properties in Sprague Dawley rat model (X16543209). Extract fungicidal (X161407).

**SPANISH CEDAR (*Cedrela odorata* L.) ++****MELIACEAE****Illustrations:**

fig 63 (DAV); fig 108 (L&W); p 38 (AAB)

**Synonyms:**

*Cedrela glaziovii* C. DC.; *C. mexicana* M. Roem.; *C. sintenisii* C. DC.; fide (POR; USN).

**Common Names:**

Acajou (Fr.; L&W); Acajou Amer (Guad.; L&W); Acajou a Muebles (Guad.; L&W); Acajou Pays (Guad.; L&W); Acajou Rouge (Fr.; Guad.; JTR; L&W); Acajou Senti (Guad.;

L&W); Acaju (Brazil; L&W); Atoc Cedro (Peru; EGG; RAR); Barbados-Cedar (Eng.; POR; USN); Cedar (Trin.; JTR); Ceder (Sur.; L&W); Cedoro (Japan; POR); Cèdre (Haiti; L&W); Cèdre Acajou (Fr.; POR; USN); Cèdre des Barbares (Fr.; POR; USN); Cèdre Espagnol (Haiti; USN); Cedro (Bel.; Brazil; Col.; Cuba; Hon.; Por.; Sp.; AAB; BNA; JTR; MPB); Cedro Amargo (Cr.; Pan.; Ven.; JTR; L&W); Cedro Amarillo (Ven.; L&W); Cedro Blanco (Cr.; L&W); Cedro Caoba (Col.; L&W); Cedro Cebolla (Pan.; JTR); Cedro Clavel (Col.; L&W); Cedro Colorado (Peru; Sp.; LOR; MDD; POR; RAR; USN); Cedro de Altura (Peru; RAR); Cedro de Bajo (Peru; RAR); Cedro de Castilla (Ecu.; L&W); Cedro del Pais (Pr.; L&W); Cedro do Amazonas (Brazil; MPB); Cedro Dulce (Cr.; L&W); Cedro Espanyol (Pr.; L&W); Cedro Hembra (Cuba; Dor.; Pr.; L&W); Cedro Macho (Cuba; L&W); Cedro Mexicana (Pr.; L&W); Cedro Oloroso (Pr.; L&W); Cedro Real (Sal.; Sp.; POR; USN); Cedro Rojo (Bel.; Peru; Sp.; BNA; LOR); Cedro Vermelho (Brazil; L&W); Cigar-box-Cedar (Eng.; Trin.; L&W; POR; USN); Cobana (Cr.; IED; L&W); Culche (Mex.; L&W); Hibúari (Garifuna; IED); Honduras Cedar (Jam.; L&W); Iguinane (Chiriguano; Izozog; DLZ); Iguirane (Chiriguano; DLZ); Jamaican Cedar (Jam.; L&W); Ku Che (Bel.; Maya; AAB); Kurana (Br. Guy.; L&W); Leli (Curacao; L&W); Manan Conshan (Peru; Shipibo/Conibo; EGG); Mexican-Cedar (Eng.; POR; USN); Mo Xi Ge Xiang Hong Chun (China; POR); Puxni (Peru; Tepehua; EGG); Red Cedar (Bel.; BNA); Santabiri (Peru; EGG; RAR); South American Cedar (Eng.; L&W); Spanish-Cedar (Eng.; Scn.; AH2; POR; USN); Surian (Malay; POR); Thujra Witara (Aym.; DLZ); West Indian-Cedar (Eng.; POR; USN); Westindische Zeder (Ger.; POR; USN); Witara (Aym.; DLZ); Xiang Hong Chun (China; POR); Yan Yang Chun (China; POR).

#### Activities:

Analgesic (f; JFM); Antimalarial (1; X12570769; X9134742); Astringent (f; DAW); Collyrium (f; JFM); Emetic (f; RAR); Febrifuge (f; UPH); Hypotensive (1; AAB); Insectifuge (1; AAB); Molluscicide (1; AAB); Orexigenic (f; JFM); Pectoral (f; JFM; JTR); Tonic (f; AAB; JFM); Vasodilator (1; AAB); Vermifuge (f; IED; JTR).

#### Indications:

Anorexia (f; JFM); Bleeding (f; JFM); Bronchosis (f; JFM); Bruises (f; AAB); Cancer (f; JFM); Colds (f; MPB); Cramps (f; EGG); Diarrhea (f; EGG; JFM); Dysmenorrhea (f; JFM); Dyspepsia (f; JFM); Dysuria (f; DAV; EGG); Elephantiasis (f; JFM); Enterosis (f; AAB); Epilepsy (f; JFM; JTR); Fever (f; IED; JTR; UPH); Flu (f; MPB); Gangrene (f; EGG; RAR); Gastrosis (f; JFM); Gingivosis (f; JFM); Headache (f; JFM); High Blood Pressure (1; AAB); *Leishmania* (f; EGG); Malaria (f1; DAW; EGG; JTR; X12570769; X9134742); Miscarriage (f; JFM); Mucososis (f; AAB); Myalgia (f; DAV); Nausea (f; JFM); Ophthalmia (f; JFM); Orchitis (f; EGG; RAR); Pain (f; AAB; JFM; MPB); Pulmonosis (f; JFM); Pyorrhea (f; JFM); Rheumatism (f; DAW); Ciguatera (f; JTR); Snake Bite (f; EGG); Sores (f; EGG; JFM); Syphilis (f; JFM); Toothache (f; EGG; JFM; JTR); Tuberculosis (f; DLZ); VD (f; JFM); Worms (f; IED; JTR); Wounds (f; JFM).

#### Dosages:

FNFF = ! Young leaves eaten cooked (TAN).

- Cubans use bark as febrifuge and to wash bruises and wounds; using the resin as pectoral (JTR).
- Jamaicans use leaf and twigs in baths for fever and pain (JFM).
- Latinos take bark decoction for diarrhea, dyspepsia, fever, gastrosis, hemorrhage, and nausea (JFM).
- Latinos take 50 g bark in 500 cc sweetened water decoction, 100 cc 3–4×/day for epilepsy (JFM).
- Latinos take resin tincture for elephantiasis and pulmonary tumors (JFM).



- Latinos take sweetened bark infusion for menstrual inappetence and chronic headache (JFM).
- Mexicans suggest 5 cups/day of the bark tea for cough (JTR).
- Mexicans use leaf infusion for toothache, the root bark for epilepsy and fever (JFM; JTR).
- Nicaraguan Garifuna take bark decoction for fever (IED).
- Peruvians suggest washing leishmanic sores (“uta”) and wounds with bark decoction (EGG).
- Peruvians take alcoholic bark macerate for malaria (EGG).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**Extracts:**

The compound gedunin has significant antimalarial activity *in vitro* (X12570769). Wood extract antimalarial *in vitro* for *Plasmodium falciparum* (chloroquine-sensitive and chloroquine-resistant clones), with gedunin exhibiting better activity than chloroquine (X9134742).

**CEIBA (*Ceiba pentandra* (L.) Gaertn.) ++****BOMBACACEAE****Illustrations:**

fig 153 (L&W); fig 172 (IED)

**Synonyms:**

*Bombax guineense* Thon.; *B. occidentale* Spreng.; *B. pentandrum* L.; *Ceiba anfractuosa* (DC.) Maza; *C. caribaea* (DC.) A. Chev; *C. casearia* Medik; *C. guineense*; *C. occidentalis* (Spreng.) Burkh.; *C. thonningii*; *Eriodendron anfractuosum* DC.; *E. caribaeum*; *E. guineense*; *E. occidentale*; *E. oreintale*; *E. pentandrum* Kurz.; *Gossampinus alba* Ham.; *G. rumphii* S. & E.; *Xylon pentandrum* (L.) Kun.; fide (EGG; USN).

**Notes:**

Big trees like this are often spiritually conceived as the link between earth and the heavens. My Peruvian confidants describe good and evil spirits therein; my Belizean Maya colleagues recognized only evil spirits. Beauvoir et al. (2001) note similar spiritual associations in Cuba,

Dominica, Guyana, Haiti, Jamaica, and Surinam. Afro-Cuban religions associate the holy tree with the deities Oroko, Obatalá, and Oddúa, perhaps remembering the similar African Adansonia (which see). *Ceiba* is said to attract superior spirits and the spirits of the dead. Haitian vodou recognizes the tree as the preferred habitation of the “Ayida Wedo” and “Iwa Dambala” (VOD citing Hurbon, 1953). “The worship of [the Iwa] Loco overlaps with the worship of trees — in particular of the *Ceiba* ... Offerings for a sacred tree are placed in straw bags which are then hung in its branches ... [S]ouls of the big mapous (*Ceiba pentandra*) wander along roads at night, and their monstrous forms strike terror into the hearts of travelers. On certain nights of the year, the souls of the ‘wicked plants’ gather at the foot of a giant tree and hold a sort of sabbath there and discuss the crimes which they propose to commit” (VOD quoting Metraux, 1953). In the Soudanian region of Africa it is thought to be inhabited by “the divine Python, symbol of maleness.” For some Africans, the wandering serpentine roots extending beyond the buttresses are sacred as evoking a giant serpent. “Other trees are also considered sacred, but the *Ceiba* is the most important” (UPW). Most plant parts can be made into food; the floss is the “kapok” used in life jackets (JFM). Floss also used on darts for blowguns (DAV).

It will long be contentious whether *Ceiba pentandra* is endemic or introduced to Africa, America, and Asia. It’s clearly very important in all three continents. Burkill (1985) says the tree, said to be the largest in the West African region, is thought to be native to America, and perhaps wind distributed to Africa (I thought prevailing winds were in the opposite direction). Burkill concludes that they are all one species, *C. pentandra* var. *caribea* being the African and American variety, *C. pentandra* var. *indica* being the Asian variety (UPW). Likewise it is contentious whether its French name should be “fromager” or “fromagier.” Burkill (1985) gives nearly two pages of common names. I have taken my usual shortcut here and listed only one from Burkill (as UPW) for each country.

### Common Names:

Ala (Tulu; KAB); Apurani (Kan.; KAB); Arbol Capoc (Sp.; USN); Arbol de Algodon (Ma.; Sp.; JFM); Arvore de la (Brazil; MPB); Arvore de Seda (Brazil; MPB); Banan (Bambara; Gabon; Ic.; Malinke; AVP; KAB); Banda (Gui.; UPW); Banta (Sierra Leone; UPW); Bantan (Dendi; KAB); Bantignei (Uv.; UPW); Barriguda de Espinjo (Brazil; MPB); Batigue (Sarracole; KAB); Belon (Guin; KAB); Bentegniewi (Fulah; KAB); Binteguie (Nuolof; KAB); Blo (Turca; KAB); Boboy (Tag.; KAB); Bois Coton (Fr.; Fr. Guy.; AVP; JFM); Bois Épineux (Fr.; KAB); Boju (Nig.; UPW); Bokuma (Congo; AVP); Bonga (Col.; Ma.; JFM); Bongo (Pan.; AVP; JFM); Bosanobo (Gambia; UPW); Bosongu (Congo; AVP); Buday (Serere; KAB); Bulaccastila (Pam.; KAB); Bulacdonol (Cebu; KAB); Buma (W. Cameroons; UPW); Buraga (Kan.; WOI); Busaira (Diola; KAB); Bwa Coton (Creole; Haiti; VOD); Bwa Coton Swa (Creole; Haiti; VOD); Cabellos de Angel (Ma.; JFM); Capas (Ilo.; KAB); Capoc (Fr.; Jolo; KAB; USN); Cay Gao (Annam; KAB); Cayo (Bicol; KAB); *Ceiba* (Cr.; Cuba; Dor.; Peru; Pr.; Scn.; AH2; AVP; EGG; USN); *Ceiba* de Garzon (Ma.; JFM); *Ceiba* de Lana (Ma.; JFM); Ceibo (Ma.; JFM); Ceibo Jabillo (Ma.; JFM); Ceibon (Ma.; JFM); Ceibo Yuca (Ma.; JFM); Chirayu (Sanskrit [1 of 8]; KAB); Corwood (Bwi.; AVP); Cottonnier Mapou (Ma.; JFM); Cotton Tree (Bel.; USN); Cumaca (Ven.; AVP); Cuypishtin (Ma.; JFM); Cybba (Ma.; Por.; AVP; JFM); Daldol (Vis.; KAB); Diulasso (Bobo; KAB); Eгна (Lahu; KAB); Ekile (Ghana; UPW); Elavam (Sri.; KAB); Enya (Aowin; Sefwi; KAB); Enyainga (Nzima; KAB); Enyingna (Wassaw; KAB); Forgo (Niger; UPW); Formaggiere (It.; AVP); Fromager (Fr.; Guad.; Haiti; AVP; JFM; USN; VOD); Fromager *Ceiba* (Ma.; JFM); Fromager Commun (Fr.; UPW); Fromager des Antilles (Fr.; UPW); Fromager d’Indo-Malaise (Fr.; UPW); Fulugonga (Congo; AVP); Fuma (Sa.; EGG; RAR); Gbe (Bussanke; KAB); Gna (Ivo.; UPW); Go (Sassandra; KAB) Gon Kok Nion (Ic.; KAB); Gounga (Gabon; Ic.; AVP); Guedee Hunsu (Savalu; KAB); Guma (Bariba; KAB); Gung (Grunchi; KAB); Gwe (Lib.; UPW); Habillo (Ma.; JFM); Hattian (Hindi; KAB); Huimba (Ma.; Peru; EGG; JFM); Hunti (Dahomey;

KAB); Igarwala (Cuna; IED); Ilavam (Tam.; KAB); Ilavu (Mal.; KAB; WOI); Ilavum (Tam.; WOI); Imbul (Sin.; KAB); Inup (Bel.; USN); Jaxche (Maya; JFM); Kabu Kabes (Malaya; IHB); Kabu Kabu (Malaya; IHB); Kadami (Tel.; KAB); Kaddo Bbakkoe (Dutch; Sur.; AVP; JFM); Kankantrie (Ma.; Sur.; AVP; JFM); Kapok (Eng.; Haiti; CR2; USN; VOD); Kapokbaum (Ger.; USN); Kapokboom (Dutch; JFM); Kapok Floss (Eng.; KAB); Kapokier (Fr.; Haiti; JFM; UPW; USN; VOD); Kapokier du Togo (Fr.; UPW); Kapok Kapok (Malaya; IHB); Kapok Tree (Eng.; USN); Kap Panji (Sumatra; IHB); Kapu K (Sumatra; IHB); Katoenboom (Dutch; JFM); Katsavan (Khandesh; KAB); Katunbom (Dutch; JFM); Khatyan (Dec.; KAB); Kidem (Sen.; UPW); K Kabu (Malaya; IHB); Kokuiyu (Laos; KAB); Konde (Soussou; KAB); Kor (Cam.; KAB); Koton Mapou (Creole; Haiti; VOD); Kumaka (Ma.; JFM); Landihazobe (Hova; KAB); Len (KAB); Linihi (Dahomey; UPW); Lupina (Peru; EGG; SOU); Lupuna (Peru; Sp.; EGG; LOR); Lupuna Blanca (Peru; Sp.; EGG; LOR); Mae das Arvores (Por.; AVP); Mafumeira (Por.; UPW); Mapou (Haiti; Mart.; AVP; JFM; VOD); Mapou Coton (Haiti; AHL); Mapou Zonbi (Creole; Haiti; VOD); M Ngkapas (Malaya; IHB); Mocmayn (Ma.; JFM); Moraingy (Sakalave; KAB); Mox (Ma.; JFM); Mulende (Congo; AVP); Mullilavu (Mal.; WOI); Mu Mien (Taiwan; AJC20:135); Ngui Noi (Thai; IHB); N'gwe (Guro; KAB); Nun (Thai; IHB); Nun Tal (Thai; IHB); Nuo (Ma.; JFM); Nye (Baule; KAB); Nyina (Fanti; KAB); Ogufe (Nago; KAB); Onyaitso (Ga; KAB); Onyang (Ashanti; Twi; KAB); Ouatier (Réunion; KAB); Pachote (Ma.; JFM); Paina (Ma.; JFM); Paina Lisa (Brazil; MPB); Painera (Ma.; JFM); Pandhari (Mar.; KAB); Paniki (Ulwa; ULW); Panji (Sumatra; IHB); Panjumaram (Madras; KAB); Panya (Ulwa; ULW); Parana (Ma.; JFM); Peem (Ma.; JFM); Pi (Bobo; KAB); Piim (Ma.; JFM); Pishtin (Ma.; JFM); Piton (Ma.; JFM); Pochota (Ma.; JFM); Pochote (Ma.; JFM); Pochotl (Ma.; JFM); Pochotle (Ma.; JFM); Polão (Por.; UPW); Polião (Por.; UPW); Puchuta (Ma.; JFM); Randu (Java; Malaya; Sunda; IHB); Rimi (Hausa; Sudan; AVP; KAB); Rumbum (Gui. Bissau; UPW); Safed Simal (Hindi; WOI); Salmali (Mar.; WOI); Sambal (Urdu; KAB); Saquisaquí (Col.; IED); Schwetsimul (Ben.; KAB; WOI); Serigne (Tagonana; KAB); Silk Cotton Tree (Eng.; USN; VOD); Sterculea (It.; AVP); Sumauma (Brazil; MPB); Sumauma da Varzea (Por.; JFM); Sumaumeira (Brazil; MPB); Sumaumeira de Varzea (Brazil; MPB); Sveta Salmali (Sanskrit; WOI); Tella Buragi (Tel.; WOI); Thinbawle (Burma; KAB); Tídibu Maúru (Garifuna; IED); Tiou (Wele; KAB); Toborache (Ma.; JFM); Toborochi (Bol.; AVP); Toborqachi (Bol.; AVP); Toxapu (Cashibo; EGG; RAR); Tunuum (Ma.; JFM); Unup (Ma.; JFM); White Silk Cotton Tree (Eng.; USN); Wuti (Awuna; Ewe; Krepi; KAB); Xiloxochitl (Ma.; JFM); Xono (Amahuaca; EGG; RAR); Yaaxche (Ma.; JFM); Yaga Xení (Ma.; JFM); Yaxche (Bel.; JFM; USN).

### Activities:

Alterative (f; UPW); Analgesic (f; ULW); Antiangiogenic (1; X12601670); Antiedemic (1; AJC20:135); Antiinflammatory (1; AJC20:135); Antiprostaglandin (1; COX); Antiseptic (f1; VOD; WO3); Antisickling (1; X17113273); Antispasmodic (f; UPW); Aphrodisiac (f; IHB); Astringent (f; EGG; IED; ULW); Bactericide (1; KAB); Contraceptive (f; VOD); COX-1-Inhibitor (1; COX); COX-2-Inhibitor (1; COX); Curare (f; UPW); Demulcent (f; KAB; WO2); Depurative (f; KAB); Diuretic (f; DAV; EGG; ULW; WO2); Emetic (f; DAV; EGG; UPW; WO2); Emollient (f; UPW); Febrifuge (f; DAV; GMJ; VOD); Hypoglycemic (f1; JE84:139; WO2; X12648806); Laxative (f; UPW; WO2); Litholytic (f; IHB); Propecic (f; IED); Sedative (f; UPW); Tonic (f; WO2); Trypanocide (1; X16188409).

### Indications:

Alopecia (f; IED); Alzheimer's (1; COX; FNF); Anasarca (f; IHB); Arthrosis (1; COX; FNF); Ascites (f; IHB); Asthma (f1; COX; IHB); Bacteria (1; KAB; WO3); Blennorrhoea (f; UPW); Boils (f; KAB); Cancer (f1; COX; FNF; JLH; KAB); Cardiopathy (f; UPW); Catarrh (f; IHB); Childbirth (f; JFM; VOD); Colds (f; IHB); Colic (f; UPW); Conjunctivitis (f; MPB; UPW); Constipation (f; UPW; WO2); Coughs (1; COX); Cramps (f; UPW); Cystitis (f; IHB); Debility (f; IED); Dermatitis (f; UPW); Diabetes (f1; JE84:139; UPW; VOD; WO2; X12648806); Dropsy;

(f; AHL); Dysmenorrhea (1; COX; IED); Dysuria (f; KAB; WO2); Edema (f1; AJC20:135; UPW; VOD); Enterosis (f; IHB; KAB; WO2); Erysipelas (f; JFM; VOD); Fatigue (f; UPW); Fever (f; DAV; GMJ; VOD); Furuncles (f; UPW); Gastrosis (f; UPW); Gingivitis (f; UPW); Gonorrhea (f; UPW); Headache (f; AHL); Hemorrhoids (f; JFM); Hepatosis (f; KAB); Hernia (f; UPW); Hoarseness (f; IHB; VOD); Hyperglycemia (f1; JE84:139; WO2; X12648806); Impotence (f; IHB); Inebriation (f; IHB; KAB); Infection (f1; KAB; VOD; WO3); Infertility (f; UPW); Inflammation (1; AJC20:135; COX; IED); Insanity (f; UPW); Insomnia (f; UPW); *Klebsiella* (1; WO3); Leprosy (f; KAB; UPW); Lochiorrhea (f; KAB; WO2); Lumbago (f; UPW); Migraine (f; KAB; WO2); Obesity (f; KAB); Pain (f1; COX; IED; KAB; ULW); Plague (f; KAB); Polyps (f; JLH); Rheumatism (f; UPW); Rhinosis (f; JLH); Rickets (f; UPW); *Shigella* (1; WO3); Sickle-Cell (1; X17113273); Sore Throat (f; VOD); Splenosis (f; KAB); Sprains (f; JFM; VOD); Stones (f; IHB); Swelling (f1; AJC20:135; UPW; VOD); Syphilis (f; IHB); Trypanosoma (1; X16188409); Urethritis (f; IHB); VD (f; IHB; KAB); Vertigo (f; IED; KAB; VOD; WO2); Whitlow (f; UPW); Wounds (f; JFM); Yellow Fever (f; VOD).

### Dosages:

FNFF = ! Young leaves, buds, and fruits eaten like okra. Seeds roasted and eaten, used in soups or fermented into “kantong”; presscake used in making some types of tempeh. Seed oil used in cooking. Flowers and dried stamens also eaten, the latter in curries; used in coconut milk sauce. Ashes used as salt substitute (FAC; TAN; UPW).

- Asian Indians suggest the root juice for diabetes (KAB).
- Ayurvedic suggest the gum for blood disorders, cancer, hepatosis, obesity, pain, and splenosis (KAB).
- Brazilians suggest the sap in conjunctivitis (MPB).
- Cambodians prescribe the fruit in migraine and vertigo (KAB).
- Filipinos use bark as aphrodisiac (IHB).
- Haitians bathe or poultice leaf decoction onto bites, boils, dermatosis, erysipelas, fatigue, infections, and sprains, drinking the tea for cough, hoarseness, and sore throat (VOD).
- Haitians mix fruit pulp with 1/3 lemon juice as antiseptic in nervousness and yellow fever (VOD).
- Haitians use a compress or lotion of the leaves to alleviate dizziness (VOD).
- Haitians use tender shoot decoction as a contraceptive (VOD). Conversely (perhaps because of the tree's rapid growth, or more probably the fecundity of the seed), the bark sap is given to sterile women to promote conception in Congo, Ivory Coast, and Upper Volta (UPW).
- Javanese take bark, with areca, nutmeg, and sugar candy as a diuretic for bladder stones (IHB).
- Javanese take leaf tea for catarrh, cough, enterosis, hoarseness, and urethritis (IHB).
- Latinos apply decoction (4 g bark/l water, boil 15 min) to leg ulcers and hemorrhoids (JFM).
- Malaysians use leaf decoction or tea in childbirth, fever, and syphilis (IHB).
- Singaporans pound leaves with onions and turmeric for cough (IHB).
- Yunani suggest the gum or roots for biliousness, boils, blood disorders, dysuria, fever, gonorrhea, impotence, and leprosy (KAB).

### Downsides:

Not covered (AHP; KOM; PH2). Kapok can irritate the skin and especially most mucosa, eye, ear, and throat (UPW; X911688). As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

### Extracts:

Vavain 3'-o-beta-d-glucoside and its aglycon, vavain, isolated from the bark, together with flavan-3-ol, and (+)-catechin. Vavain 3'-o-beta-d-glucoside, vavain, and (+)-catechin exhibited

IC50 values of 381, 97, and 80  $\mu\text{M}$  (indomethacin, IC50 1.1  $\mu\text{M}$ ). (+)-catechin is still, however, only 1/80th as antiinflammatory as indomethacin. Aqueous stem bark extract reduced parasitemia in animals (150 mg/kg b.w. 2 $\times$ /day for 3 days) (X16188409). Aqueous bark extract hypoglycemic, reducing plasma glucose level in streptozotocin induced diabetic rats (X12648806). Methanol stem extract inhibited angiogenesis 87.5% at 100  $\mu\text{g}/\text{ml}$  (X12601670).

## BUTTONBUSH (*Cephalanthus occidentalis* L.) +

### RUBIACEAE



#### Illustrations:

p 190 (AUS)

#### Notes:

In the 1890s even Parke-Davis marketed the fluid extract as aperient, diuretic, febrifuge, and tonic; eclectics spoke highly of it. But it dropped off the radar. Sharing many alkaloids with, and, except for the lianoid habits and thorns, resembling the famous cat's claw of Peru, this plant deserves reinvestigation, but it is not endangered like so many species in the tropical rainforests. Out of the tropics, there aren't too many shrubby members of the coffee family Rubiaceae. The button bush is rather unique in being both temperate and almost aquatic. Several members of the coffee family, like Indian mulberry, *Morinda* spp. and Peru's "una de gato," *Uncaria* spp., have been suggested to have antitumor activity. Dr. Cragg of the National Cancer Institute (NCI), who ran "una de gato" through the new cancer screen, agreed to check out our marsh buttonbush, *Cephalanthus occidentalis*, which shares several compounds with *Uncaria*. *Cephalanthus* was collected for the NCI screen on July 8, 1992, from the beaver pond near I-95 at Beltsville MD.

Long-tongued butterflies and bees are the chief pollinators. Eastman (1992) describes vividly the timed brush pollination (like that in willows); the globose flower may have 200 highly aromatic bisexual flowers. First the flowers are functionally male and pollen sheds on immature pistils. Then pistils elongate and the pollen there brushes off on insect visitors. After that pollen has been brushed off, the pistil matures, getting sticky, and accepts pollen from new visitors. Buttonbushes are great places for seeking butterflies, especially two skippers, the black dash (*Atrytone conspicua*) and the golden-banded skipper (*Autochton cellus*). Black and tiger swallowtails are frequent, along with bees, beetles, flies, and wasps. Several caterpillars feed on foliage, *Acrionicta*, *Callosamia*, *Darapsa*, and *Eudryas*. Gall-gnat larvae

(*Rhabdophaga*) may cause swollen stem galls. Bitterns, bobwhites, ducks, and rails eat the seed; beaver and muskrat the stems; deer the foliage (EAS; MZN).

### Common Names:

Akkasoli (Choctaw; AUS); Aroma de Ciénega (Cuba; AUS; JTR); Aroma de Laguna (Cuba; AUS; JTR); Bald Elder (Eng.; TOM); Bois de Plomb (Canada; Fr.; AUS); Box Bush (Eng.; BUR); Buttonball Shrub (Eng.; EAS); Buttonbush (Eng.; USN); Button Tree (Eng.; BUR); Button Willow (Eng.; BUR; HNI; USN); Buttonwood Shrub (Eng.; BUR); Cahuapate (Nahuatl; AUS); Clavellina de Ciénega (Cuba; AUS; JTR); Common Buttonbush (Eng.; USN); Crane Willow (Eng.; AUS; EAS); Crouper (Eng.; EAS); Crouper Bush (Eng.; BUR); Ee-Toñ-Bà-a (Kiowa; AUS); Globe Flower (Eng.; AUS; EAS); Halpáti:Hosô:Tî (Miccosukee; AUS); Honey Balls (Eng.; AUS; BUR; EAS); Honey Bells (Eng.; USN); Honey Plant (Eng.; EAS); Jasmin (Mex.; Sp.; AUS); Jazmín (Mex.; JTR); Knucklebrush (Eng.; EAS); Little Snowball (Eng.; EAS); Mimbres (Mex.; AUS); Mimbros (Mex.; AUS); Mountain Globe Flower (Eng.; BUR); Notêm Pisa (Choctaw; AUS); Pinball (Eng.; EAS); Pincushion Flower (Eng.; AUS); Pond Dogwood (Eng.; AUS; BUR; EAS; TOM); River Bush (Eng.; EAS); Rosa de San Juan (Mex.; Sp.; Tex.; AUS); Saccó Imittó (Koasati, AUS); Sakco'Meto (Creek; AUS); Shakchikoyyo (Chickasaw; AUS); Shakchimitti (Chickasaw; AUS); Snowball (Eng.; AUS); Swampwood (Eng.; BUR); Swan Dogwood (Eng.; BUR); Uvero (Mex.; AUS; JTR); Whiteball (Eng.; BUR); Wild Licorice (Eng.; BUR); Yo Yada (Zapotec; AUS). (Nscn).

### Activities:

Analgesic (1; FNF; IWU); Antiarrhythmic (1; X12546715); Antiischemic (1; X12546715); Bitter (f1; TOM); Calcium-Blocker (1; X12546715); Cathartic (f; CEB); Collyrium (f; DEM); Convulsant (1; FNF; TOM); Diaphoretic (f; BUR; CEB); Diuretic (f; BUR; CEB; DEM); Emetic (f1; CEB; DEM; TOM); Expectorant (f; AUS); Febrifuge (f; CEB; DEM); Hemolytic (1; FNF; TOM); Hemostat (f1; AUS; FNF); Hypotensive (1; X14668978); Laxative (f; CEB); Paralytic (1; TOM); Poison (1; FAH); Sedative (1; FNF); Tonic (f; CEB; JTR; TOM); Uterotonic (1; FNF); Vasodilator (1; X14668978).

### Indications:

Ague (f; EAS); Arrhythmia (1; X12546715); Asthma (f; AUS; TOM); Bleeding (f1; AUS; DEM; FNF); Bleorrhagia (f; JTR); Cardiopathy (1; FNF; X14668978); Colds (f; CEB); Conjunctivitis (f; FAH); Constipation (f; CEB); Consumption (f; AUS); Coughs (f; CEB; FAH; HNI; JTR); Cramps (f; CEB; HNI); Debility (f; DEM; FAH); Dermatitis (f; AUS; JTR); Diarrhea (f; DEM); Dropsy (f; AUS); Dysentery (f; AUS; DEM; FAH); Dysmenorrhea (f; CEB); Dysuria (f; DEM); Fever (f1; CEB; DEM; EAS; FNF); Gallstones (f; TOM); Gastrosis (f; DEM); Gravel (f; CEB); Headache (f; AUS; FAH); Hepatitis (f; TOM); High Blood Pressure (1; FNF; X14668978); Inflammation (f; EAS); Insomnia (1; FNF); Ischemia (1; X12546715); Jaundice (f; DEM); Kidney Stones (f; EAS); Malaria (f; AUS; BUR; CEB; EAS; FAH; JTR; TOM); Metrorrhagia (f; CEB; HNI); Myosis (f; DEM); Nausea (f; DEM); Nephrosis (f; EAS; FAH); Ophthalmia (f; DEM); Pain (f1; CEB; FNF; HNI; IWU); Palsy (f; CEB; FAH); Paralysis (f; JTR); Pertussis (f; AUS); Pharyngitis (f; CEB); Pleurisy (f; FAH); Proctitis (f; DEM); Pulmonitis (f; BUR; CEB); Rheumatism (f; AUS; DEM); Stomachache (f; AUS; DEM); Stones (f; EAS; FAH); Strangury (f; AUS); Syphilis (f; AUS; JTR); Thrombus (1; FNF); Toothache (f; DEM; FAH; HNI); Tremors (f; DEM); VD (f; AUS; BUR).

### Dosages:

FNFF = X. Boil a handful or cup of leaves and stems 5 min and drink 3 cups/day (CEB); boil 6-inch root (ca. 1" diam.) ½ hr in a cup of water, take several cupful/day (CEB).

- Chickasaw applied warm root poultice to the head for eye ailments (DEM).
- Chippewa take 3 cups/day boiled stems and leaves for cramps, metrorrhagia, and pain (HNI).

- Choctaw chewed the bark for toothache, using the bark decoction as collyrium (DEM; HNI).
- Choctaw use the plant a/o bark for dysentery, fever, ophthalmia, and as a tonic (AUS; DEM).
- Creek Indians mixed with mullein for coughs (HNI).
- Fox Indians used inner bark as emetic (HNI).
- Kiowa use the plant a/o root decoction as a hemostat (AUS; DEM).
- Koasati took leaf decoction for rheumatism, the root decoction for enlarged muscles (DEM).
- Louisianans used the bitter plant for malaria (AUS).
- Panhandlers steeped the roots in whiskey for asthma and dropsy (AUS).
- Seminoles used for dysentery, headache, stomachache, and water retention (AUS).

**Downsides:**

Leaves can poison grazing animals (BUR; FAH). Cephalanthine may cause violent vomiting, corpuscle destruction, convulsion, and paralysis. As of July 2007, the FDA Poisonous Plant Database listed 33 titles alluding to toxicity of this species.

**Extracts:**

Cephalanthin is convulsant, emetic, and hemolytic; cephalin is hemostat; rhynchophylline is anesthetic (IWU), antiaggregant (PH2), antihypertensive (IWU), antipyretic (JBH), anti-thrombic (PH2), cardiodepressant (IWU), dopaminergic (PH2), febrifuge (PJB1(2):284), hypotensive (JBH), myocontractant (IWU), neuroparalytic, protisticide (IWU), sedative, serotonergic (PH2), uterotonic, and vasodilator (X14668978).

**VIRGIN'S WEED (*Cestrum hediondum* Dun) +  
SOLANACEAE**

**Notes:**

Uses and colloquial names of *C. auriculatum* & *C. parquii* overlap.

**Common Names:**

Hierba de la Virgin (Peru; Sp.; LOR); Hierba del Cancer (Peru; SOU); Hierba Hedionda (Peru; SOU); Hierba Santa (Peru; Sp.; LOR; MDD); Holy Weed (Eng.; DAV); Nyucjau (Peru; SOU); Virgin's Weed (Eng.; DAV).

**Activities:**

Febrifuge (f; SOU); Sudorific (f; SOU); Vulnerary (f; RAR).

**Indications:**

Alopecia (f; SOU); Colds (f; SOU); Colic (f; SOU); Dandruff (f; SOU); Dermatitis (f; SOU); Eruption (f; SOU); Fever (f; SOU); Gastroitis (f; SOU); Measles (f; SOU); Wounds (f; SOU).

**Dosages:**

FNFF = ? Sudorific decoction drunk for colds; taken in enemas for colic (SOU). Tea used in baths for fever; the infusion for dandruff and dermatitis (SOU).

**PILL-BEARING SPURGE (*Chamaesyce hirta* (L.) Millsp.) +  
EUPHORBIACEAE**

**Illustrations:**

pl 846A (KAB); pl 150B (DAG)

**Synonyms:**

*Euphorbia hirta* L.; *E. pilulifera* L.; fide (USN).

**Common Names:**

Aankhle Jhar (Nepal; NPM); Achchegida (Kan.; KAB; NAD); Ahinkodze (Awuna; KAB); Aidinono (Betsileo; KAB); Akubaa (Nzima; KAB); Amampatchaiarisi (Tam.; KAP; WOI); Ambin Jantan (Malaya; IHB; KAB; KAP); Ammam Pachcharisi (Tam.; NAD); Ammanpachoharis (Tam.; KAP); Amum Patchaiaressi (Tam.; NAD); Ara Tanah (Malaya; IHB); Asthma Herb (Eng.; Ocn.; AH2); Asthma Plant (Eng.; JFM; USN); Australian Asthma Herb (Eng.; JFM); Australian Asthma Weed (Eng.; ADP); Barakeru (Ben.; NAD); Barasu (Mah.; NAD); Baro Kheruie (Ben.; WOI); Batobotones (Tag.; KAB); Bidari (Tel.; NAD); Bidarie (Tel.; ADP; WOI); Bolobotones (Pam.; KAB); Boro Keruie (Ben.; ADP); Botobotones (Pi.; KAB); Bovi (Vis.; KAB); Burakeru (Ben.; KAB); Byauli (Chepang; NPM); Caá Cambuí (Brazil; MPB); Caá Cica (Brazil; MPB); Cat's Hair (Eng.; NAD); Chanca Piedra Negra (Sp.; MD2); Checkweed (Eng.; JFM); Chhumen (Tamang; NPM); Chickenweed (Bel.; Eng.; BNA; JFM); Chimphar Jhar (Gurung; Nepal; NPM); Coliflorcito (Sp.; JFM); Creeping Hairy Spurge (Eng.; JFM); Dadakiriya (Sin.; KAP); Da Fei Yang Cao (Pin.; DAA); Dapranchnu (Tamang; NPM); Didajar (Nepal); Didhe Aainar (Majhi; NPM); Dudajar (Nepal; KAP); Dudali (Mar.; WOI); Dudeli (Guj.; ADP; KAB; WOI); Dudhali (Mah.; NAD); Dudhe (Nepal; Rai; NPM); Dudhe Jhar (Nepal; NPM); Dudhi (Guj.; Hindi; Yunani; KAP; NAD; TAN; WOI); Dudhi Jhar (Magar; NPM); Dudhiya (Mooshar; Rai; NPM); Dudhiya Jhar (Danuwar; NPM); Dudnali (Mar.; KAB); Dudurli (Kon.; KAB; NAD); Dugadhika (Sanskrit; KAP); Entrecasadas (Peru; EGG); Erva Andorinha (Brazil; MPB); Erva de Santa Luzia (Brazil; MPB); Euphorbia (Eng.; CR2); Garden Euphorbia (Eng.; Ocn.; AH2); Garden Spurge (Eng.; USN); Gélang Susu (Java; IHB); Gëndong Anak (Java; IHB); Gnenoba (Tamang; NPM); Golondrina (Pan.; Peru; DAV; EGG; JFM; SOU; TBC); Gordon (India; KAB); Goverdhan (Mah.; NAD); Grande Mal Nommèe (Fr. Guiana; KAB); Hanuman (Chepang; NPM); Herbe a Pilules (Ma.; JFM); Herbe Jean Robert (Fr.; KAB); Hierba Colorado (Bol.; DLZ); Hierba de la Golondrina (Peru; EGG; SOU); Hierba de Paloma (Ma.; JFM); Hierba de Pollo (Pan.; JFM; TBC); Jean Robert (Réunion; KAB); Jotane Jhar (Nepal; NPM); Kanguil (Nepal; NPM); Kélusan (Malaya; IHB); Kërémak Susu (Malaya; IHB); Kharen (Ben.; KAP); Kiritala (Sin.; KAB); Kodasing (Mun.; KAB); Kukon Kukon (Java; IHB); Laldudhi (Hindi); Lanchang (Malaya; IHB); Leche Leche (Bol.; DLZ); Leitera (Ma.; JFM); Magaarjundudhi (Gwalior; NAD); Makaman (Tamang; NPM); Malcasá (Dor.; AHL); Málcasada (Dor.; AHL); Mal Nommèe (Creole; Fr.; Haiti; AHL; JFM; VOD); Mal Nommèe Vraie (Fr.; JFM);



Malome (Ma.; JFM); Malomin (Haiti; AHL); Malonmen (Creole; Fr.; VOD); Mapempe (Jam.; JLH); Marcasá (Dor.; AHL); Milk Tea (Jam.; JFM; JLH); Milkweed (Bar.; Jam.; JFM; JLH); Mothidudhi (Mar.; ADP; WOI); Nam Nom Rācha Sī (Thai; IHB); Nanabala (Tel.; KAB); Nana-balu (Tel.; NAD); Nanangkaän (Sunda; IHB); Nangkaän (Sunda; IHB); Nargajuni (Sanskrit); Nayeti (Bom.; Mah.; NAD; WOI); Nelapalai (Mal.; Tel.; ADP; KAB; NAD; WOI); Ngondera-mango (Ubangi; JLH); Nononkurchiya (Hausa; KAB); Notsigbee (Ewe; KAB); Palavi (Sri.; KAB); Patchaiyarissi (Tam.; KAB); Patikan (Java; IHB); Pempe (Jam.; JFM; JLH); Pill-Bearing Spurge (Eng.; Scn.; AH2; USN); Pillenwolfsmilch (Ger.; KAP); Pimpinela (Ma.; JFM); Pus-itoa (Sanskrit; KAB); Qora Lichi Lichi (Aym.; DLZ); Quebra Pedra (Ma.; JFM); Queensland Asthma Herb (Eng.; JFM; VOD); Raktavinduchada (Sanskrit; NAD); Ratango (Nepal; NPM); Reddinanabrolu (Tel.; WOI); Rhatulo (Nepal; NPM); Sabana de la Virgen (Sp.; JFM); Saca Teta (Pan.; TBC); Sheer-i-Geyah (Iran; KAP); Shima Nishiki Sô (Japan; TAN); Snakeweed (Eng.; NPM); Sosó Shikuiji (Ese'aja.; MD2); Taiwannishikiso (Japan; KAP); Taleno (Gurung; NPM); Tea (Ma.; JFM); Tianguis (Ma.; JFM); Tikapara (Chepang; NPM); Ti Lait (Fr.; JFM); Ti Lèt (Creole; Fr.; VOD); Tripa de Pollo (Sp.; JFM); Trishubba Mran (Tamang; NPM); Urpai Micuna (Peru; EGG; RAR; SOU); Urpai Mucuna (Ma.; JFM); Wartweed (Ma.; JFM); Xanabmucuy (Ma.; JFM); Yawan Bero Keshpin (Shipibo/Conibo; MD2); Yerba Colorado (Peru; DAV; EGG; SOU); Yerba de Sapo (Sp.; JFM); Yerba Golondrina (Sp.; JFM); Yerba Lechera (Dor.; AHL); Yu Tchou Ts'ao (China; KAB).

### Activities:

Aldose-Reductase-Inhibitor (1; DIA); Amebicide (1; KAP; VOD; X10228613); Analgesic (1; HDN; MPB; X1896520); Anthelmintic (f1; KAP; NPM); Antiaggregant (1; HDN); Antiallergic (1; X16557622); Anticancer (1; KAP); Anticonvulsant (1; HDN); Antidiabetic (1; DIA); Antidiarrheal (1; X10228613; X10782488; X16257136; X8095537); Antiedemic (f1; HDN; X16557622; X1896520); Antiemetic (f; HDN; KAB); Antifertility (1; X14610373); Antihistaminic (1; X16557622); Antiinflammatory (f1; HDN; MPB; X16557622; X1896520); Anti-leukemic (1; HDN; KAP); Antimalarial (1; X15182900); Antiplasmodial (1; X10624878; X15182900); Antiplatelet (1; HDN); Antiprostaglandin (1; HDN); Antiseptic (1; HDN; MD2; UPW; X16730921); Antispasmodic (1; VOD; X10228613; X10782488); Antiviral (1; HDN); Anxiolytic (1; HDN; MPB; X1973750); Aphrodisiac (f; HDN; VOD); Astringent (f; KAB); Bactericide (1; HDN; X10228613; X16730921; X9395690); Bronchodilator (f; KAB); Bronchorelaxant (f1; NAD; UPW); Carcinogenic (1; HDN); Cardiodepressant (f1; KAB; NAD); Cicatrizant (f; HDN; MD2); Curare (f; HDN); Cytotoxic (1; HDN); Diuretic (f1; EGG; HDN; VOD; X10350369; X8847884); Emetic (1; KAB); Expectorant (f; KAP); Febrifuge (f1; KAB; MPB; X1896520); Gram(+)-icide (1; HDN); Gram(-)-icide (1; HDN); Hemostat (f; KAB; MD2); Hydragogue (f; MPB); Hypoglycemic (1; DIA; HDN; KAP); Hypotensive (f; VOD); Immunosuppressive (1; X16557622); Insecticide (1; VOD); Irritant (1; HDN); Lactagogue (f1; ADP; DEP; HDN; KAB; UPW; VOD); Laxative (f; NPM); Litholytic (f; JFM); Mastogenic (1; HDN; IED); Molluscicide (1; X15722098); Myorelaxant (1; HDN; KAP); Narcotic (f; AHL; DEP; KAB); Oxytotic (f; HDN); Parasiticide (f; NAD); Plasmodicide (1; X15182900); Purgative (f; EGG; UPW); Respirodepressant (1; KAB); Respirostimulant (1; HDN); Sedative (f1; KAB; X1973750); Stimulant (f; UPW); Vulnerary (f; MPB).

### Indications:

Acne (f; NPM); Adenopathy (f; KAB); Alactea (f; HDN); Allergies (f1; HDN; X16557622); Amebiasis (1; HDN; KAP; X10782488); Ancylostomiasis (f; HDN); Anemia (f; HDN); Angina (f; UPW); Anxiety (1; HDN); Aphtha (f; KAB); Arthrosis (f; DAV; EGG); Asthenia (f; HDN); Asthma (f; ADP; DEP; DIA; KAB; KAP; NPM; VOD; X15722098); Bacteria (1; HDN; X10228613; X8847884; X9395690); Bleennorrhagia (f; HDN); Boils (f; NPM; SKJ); Bronchosis (f; ADP; AHL; DIA; KAB; KAP; NPM); Burns (f; HDN); Cancer (1; JLH; MPI); Cardiopathy (f; NAD); Cataracts (f; EGG); Chafing (f; NPM); Childbirth (f; HDN);

X17362507); Colds (f; KAP); Colic (f; ADP; KAB; MD2; MPI; NAD; WOI; X15722098); Conjunctivitis (f; HDN); Convulsions (1; HDN); Corns (f; JLH); Corneitis (f; HDN; IHB; MPB); Coryza (f; NAD); Coughs (f; DEP; KAB; KAP; X15722098); Cystitis (f; JFM); Dermatitis (f; ADP; JFM; NPM; SKJ); Diabetes (1; DIA; HDN); Diarrhea (f1; HDN; KAB; MD2; VOD; X10228613; X10782488; X16257136; X8095537); Dislocation (f; MD2; NPM); Dysentery (f1; ADP; HDN; KAB; KAP; VOD; WOD; X15722098); Dyslactia (f1; ADP; HDN; UPW); Dysuria (f; JFM); Edema (f1; HDN; KAB; X10350369; X1896520); Enteritis (f1; KAB; KAP; MD2; X16730921); *Escherichia* (1; HDN; X16730921); Fever (f; HDN; JFM); Flu (f; JFM); Fracture (f; MD2); Fungus (f; NAD; SKJ; UPW); Gastritis (f; HDN); Gonorrhoea (f; DEP; IHB; JFM); Gravel (f; JFM); Guinea Worm (f; HDN); Hay Fever (f; HDN); Headache (f; HDN); Heartburn (f; HDN); *Helicobacter* (1; X15681161); Hemorrhoids (f; MD2); Hepatitis (f; HDN); High Blood Pressure (f1; HDN; JFM; VOD; X10350369); High Cholesterol (f1; X17040567); Hookworm (f; HDN); Impotence (f; HDN; VOD); Infection (f1; HDN; MD2; NPM; X15182900; X16730921); Infertility (f; X17362507); Inflammation (f1; KAB; X1896520); Insomnia (1; HDN; X1973750); Jaundice (f; HDN); Leukemia (1; HDN; KAP); Leukorrhoea (f; ADP); Malaria (1; X10624878; X15182900); Mastalgia (f; ADP); Measles (f; HDN; JFM); Metrorrhagia (f; HDN; MD2); Mucositis (f; KAB); Mycosis (f; UPW); Nephrosis (f; JFM; SKJ); Ophthalmia (f; JLH; KAB; MPB); Otitis (f; NPM); Pain (f1; ADP; HDN; MPB; NPM; X1896520); Parasites (f; HDN; NAD); Proteus (1; X16730921); *Pseudomonas* (1; X16730921); Puerperium (f; ADP); Respiratory (f; KAB; VOD); Rheumatism (f; DAV; EGG); Ringworm (f; NAD; SKJ; UPW); *Salmonella* (1; HDN); Scabies (f; HDN); *Shigella* (1; HDN; X8847884; X9395690); Snake Bite (f; HDN; MPB); Sores (f; KAB); *Staphylococcus* (1; HDN; X16730921); Stings (f; HDN); Stomatitis (f; SKJ); Stress (1; HDN; X1973750); Sties (f; UPW); Swelling (f1; HDN; X1896520); Threadworm (f; UPW); Thrush (f; HDN); Tinea (f; HDN); Trichomonas (f; VOD); Ulcers (1; X15681161); Urethritis (f; HDN); Urogenitis (f; ADP; KAB; WOI); VD (f; DEP; UPW); Viruses (1; HDN; KAP); Vomiting (f; DEP; KAB); Warts (f; KAB; MPI; SOU); Whitlow (f; UPW); Worms (f; JFM; KAB; KAP); Wounds (f; JLH; MD2; NPM).

### Dosages:

FNFF = ! Greens eaten in parts of Africa and Asia (NPM; UPW). Young leafy buds eaten in times of scarcity (TAN). Leaves eaten as a vegetable (WOI). 0.12–0.3 ml liquid extract (CAN); 120–300 mg herb, as tea (CAN); 0.6–2 ml herb tincture (CAN); 28–56 ml plant decoction (KAP); 14–28 ml plant tea (KAP).

- Australians take 1 tsp as asthma remedy (1.5 g plant/0.5 liter water) (JFM).
- Australians use to treat high blood pressure and edema (X10350369).
- Brazilians use the decoction for asthma and gonorrhoea (IHB).
- Caribbean scientists report the plant is antiamebic, antiasthmatic, and antispasmodic (VOD).
- Caribs use for childbirth and infertility (X17362507).
- Dominican Caribs take the plant decoction for constipation (VOD).
- Guadelupans and Martiniquans take plant as antiasthmatic, diuretic, and febrifuge (JFM).
- Guatemalans apply the sap to granulated eyelids and skin afflictions (JFM).
- Guatemalans take decoction for bronchitis and gonorrhoea (JFM).
- Haitians take the leaf juice or decoction for asthma and other respiratory problems (VOD).
- Haitians take the shoot tea for diarrhea and dysentery (VOD).
- Haitians use the leaf decoction as diuretic, lactagogue, and trichomonicide (VOD).
- Indonesians apply crushed plant to tumors and wounds (JLH).

- In India used for asthma, colic, cough, dysentery, and genito-urinary diseases (X15722098).
- Madre de Dios Peruvians plaster leaves onto dislocations or fractures (MD2).
- Madre de Dios Peruvians take plant decoction for colic, diarrhea, and enterosis (MD2).
- Malaysians drop the latex in eyes for conjunctivitis and ulcerated cornea (IHB).
- Mayans take leaf decoction for cystosis, dysentery, gravel, kidney stones, and nephrosis (JFM).
- Nepalese chew the flower heads for headache (NPM).
- Nepalese drop the latex in eyes for cataracts, conjunctivitis, and corneal opacities, into the ear for ear infections; applying also to abscesses, boils, cuts, pimples, and wounds (NPM).
- Nepalese smoke the dry plant for asthma (NPM).
- Nepalese suggest 4 tsp plant juice 2×/day as analgesic and febrifuge (NPM).
- Peruvians suggest the latex for removing cataracts (EGG).
- Sukumas and Swahilis use as a diuretic, including high blood pressure and edema (X10350369).
- Trinidadans take decoction for fever, flu, high blood pressure, measles, and urinary burning (JFM).

#### Downsides:

Newall, Anderson, and Phillipson (1996) caution because of its effect on smooth muscle activity, *in vitro*; its use in pregnancy and lactation is to be avoided. Aqueous extracts caused varying testicular degeneration and reduced mean seminiferous tubular diameter in rats, suggesting deleterious effects on testes and accessory organs of rats; caution should therefore be exercised (X14610373). As of July 2007, the FDA Poisonous Plant Database listed 19 titles alluding to toxicity of this species.

#### Extracts:

Oral doses (50 mg powdered leaf) in female guinea pigs caused breast enlargement and increased flow of milk 15% (HDN). Ghanaian women, taking the plant with oilpalm kernels, produce more milk in 24 hr (UPW). Of 38 used as antidiarrheal agents, only 8 plant extracts (17.39%) proved antidiarrheal by both antibacterial, antiamebic, and antispasmodic action (X10228613). Plant extract bactericidal, especially for *Shigella flexneri* and *Vibrio cholerae*, with (MBC < 100 µg/ml) (X9395690). 95% ethanol extract of aerial parts exhibited antihistaminic, antiinflammatory, and immuno-suppressive activity (X16557622). Aqueous stem bark and leaf extract strongly molluscicidal (X15722098). Methanolic plant extract (IC<sub>50</sub> < 3 µg/ml) antiplasmodial (X15182900). Plant extract inhibited greater than 60% parasite growth of *P. falciparum in vitro* (6 µg/ml), showing significant chemosuppression of parasitemia in mice infected with *P. berghei berghei* (100–400 mg/kg/day) (X10624878). Plant extract analgesic (20–25 mg/kg), antiinflammatory (100 mg/kg), and antipyretic (100–400 mg/kg) (X1896520).

### COOPER'S HOOP (*Chamissoa altissima* (Jacq.) Kunth) ++

#### AMARANTHACEAE

#### Illustrations:

fig 108-c

#### Synonyms:

*Achyranthes altissima* Jacq.; *Celosia tomentosa* Humb. & Bonpl. ex Schult.; *Chamissoa macrocarpa* HBK.; fide (BNA; USN).

**Common Names:**

Basket Withe (Jam.; AVP; JFM); Basket Wys (Ma.; JFM); Bejuco de Guacharaca (Ven.; JTR); Bejuco de Sajan (Ma.; JFM); Bejuco Pedorro (Pan.; IED); Bois Panier (Haiti; AHL); Cooper's Hoop (Eng.; JFM); Cuaumecate Barba de Viejo (Ma.; JFM); Guaniquí (Cuba; AVP; JFM; JTR); Guaniquique (Ma.; JFM); Liane Panier (Haiti; AHL; AVP); Liane Tendresse (Haiti; AHL); Niguita (Ma.; JFM); Pabellón del Rey (Dor.; AHL); Pate (Ma.; JFM); Quiebra Quiebra (Ma.; JFM).

**Activities:**

Antiblennorrhagic (f; JTR); Antivenereal (f; IED); Depurative (f; JFM; JTR); Diuretic (f; JFM); Sedative (f; JFM).

**Indications:**

Asthenia (f; MPG); Bleorrhagia (f; JTR); Debility (f; MPG); Dysentery (f; DAW); Dyspepsia (f; DAW); Enterosis (f; AHL); Gonorrhoea (f; IED; JFM); Insomnia (f; JFM); VD (f; DAW; IED; JFM; MPG).

**Dosages:**

FNFF = ! Leaves reportedly edible; young shoots eaten as potherb in Jamaica (AHL; BNA; JFM).

- Dominican Bateyes use salted leaf soup for asthenia and debility (MPG).
- Dominicans use leaf tea for intestinal disorders (AHL).

**WHITE BACK (*Chaptalia nutans* (L.) Pol.) +  
ASTERACEAE**

**Illustrations:**

fig 27 (MPG)

**Synonyms:**

*Tussilago nutans* L. (basonym); fide (USN).

**Notes:**

Austin (2004) lists “sunbonnets” for *Chaptalia tomentosa*. Maybe I should call it “nodding sunbonnets.” Morton lists a few English names without telling us from whence they came: Dandelion (Ma.; JFM), Heal and Draw (Ma.; JFM), Kema Weed (Ma.; JFM), Lion's Tail (Ma.; JFM), Silver-Leafed Plant (Ma.; JFM), Valeriana (Ma.; JFM), and Whiteback (Ma.; JFM). Austin (2004) translates the Haitian Creole names for us: Fwa Pa Nan Kont = “liver is not struggling,” Pinga Nèg = “the man's substance,” toro tig = “tiger bull,” all three names alluding “to cleansing the blood and digestive system as part of an aphrodisiac” (AUS).

**Common Names:**

Árnica (Cr.; MPG); Bretonica (Ma.; JFM); Chicorée (Dor.; AHL); Costa Branca (Brazil; MPB); Coygaraca (Ma.; JFM); Dandelion (Ma.; JFM); Dos Blanc (Fr.; Fwi.; JFM; USN); Erva de Sangue (Ma.; JFM); Fois Pas Non Comtes (Haiti; Ma.; JFM); Fumo do Mato (Ma.; JFM); Fwa Pa Nan Kont (Creole; Haiti; VOD); Heal and Draw (Ma.; JFM); Heal I and Draw (Ma.; JFM); Kema Weed (Ma.; JFM); Lechugilla (Sp.; USN); Lechugillo (Col.; IED); Lingua de Vaca (Brazil; Ma.; JFM; MPB); Lingua de Vaca Miúda (Brazil; Por.; USN); Lion's Tail (Ma.; JFM); Paraqueda (Brazil; Por.; USN); Paraquedinha (Brazil; Por.; USN); Pas d'Âne (His.; AHL); Pinga Nèg (Creole; Haiti; VOD); Pinga Nègre (Haiti; AHL); Plumerito (Cuba; Wi.; JFM; JTR); Rabasse (Ma.; JFM); Salvia de la Playa (Cuba); Sanguinera (Ma.;

JFM); Silver-Leafed Plant (Ma.; JFM); Silver Puff (Eng.; Tex.; USN); Tapira (Brazil; Por.; USN); Taureau (His.; Ma.; AHL; JFM); Terciopelo (His.; AHL); Toro Tig (Creole; Haiti; VOD); Tussilage (Dor.; AHL); Valeriana (Ma.; JFM); White Back (Ma.; Vi.; JFM; USN); Wuara Dowóo (Cr.; MPG).

### Activities:

Antiinflammatory (f1; VOD; X11021310); Antiseptic (1; X12764448; X14698521); Aphrodisiac (f; AUS); Bactericide (1; VOD; X12764448; X14698521); Bechic (f; AHL); Cyanogenetic (1; MPG); Depurative (f; VOD); Emmenagogue (f; EB30:141; JFM); Hypotensive (f; VOD); Stimulant (f; MPB); Tonic (f; MPB); Vermifuge (f; MPG); Vulnerary (f; EB30:141; MPG).

### Indications:

Amenorrhea (f; EB30:141; JFM); Asthma (f; AHL; JFM); *Bacillus* (1; VOD; X12764448); Bacteria (1; VOD; X12764448; X14698521); Bronchosis (f; JFM); Catarrh (f; JTR); Childbirth (f; JFM); Colds (f; JFM); Colic (f; JFM); Convulsions (f; JFM); Coughs (f; JFM); Dandruff (f; JFM); Dermatitis (f; MPB); Diabetes (f; VOD); Dyspepsia (f; VOD); Enterosis (f; MPG); Gas (f; JFM); Gastrosis (f; MPB; VOD); Gonorrhoea (f; JFM); Headache (f; MPB); Hepatitis (f; MPB); High Blood Pressure (f; VOD); Impotence (f; AUS); Infection (1; VOD; X12764448; X14698521); Inflammation (f1; VOD; X11021310); Jaundice (f; MPB); Ophthalmia (f; JTR); Pulmonosis (f; JTR); Scrofula (f; JFM); Sores (f; EB30:141; VOD); *Staphylococcus* (1; VOD; X12764448); Stomachache (f; VOD); Swelling (f; EB31:352; JFM); Syphilis (f; JFM); VD (f; JFM); Worms (f; MPG); Wounds (f; EB30:141; MPG).

### Dosages:

FNFF = X.

- Brazilians apply heated leaves to the forehead for headache (MPB).
- Brazilian suggest the root tea for pulmonary and skin problems, gonorrhoea and syphilis (MPB).
- Brazilians use leaf and root for jaundice and gastrosis, also for washing sores (MPB).
- Costa Ricans use cooled decoction to wash bruises, muscular pain, and sprains (MPG).
- Cubans suggest the plant for catarrh, ophthalmia, and pulmonosis (JTR).
- Dominicans suggest smoking the leaves for asthma (AHL).
- Dominicans take floral tea with dill for stomach distress (VOD).
- Dominicans take leaf decoction or tea for cough, diabetes, dyspepsia, high blood pressure, and inflammation (VOD).
- Guaymi of Costa Rica use the slender roots for intestinal worms (MPG).
- Haitians take dry floral tea (10 g flower/kg water) for dandruff and scrofulous swellings (JFM).
- Jamaicans once used decoction as diuretic, and emmenagogue, for childbirth, colds, colic, convulsions, and gas (JFM).
- Jamaicans soak sore feet in the decoction (JFM).
- South Americans and West Indians use bitter root a/o plant decoction for amenorrhoea, asthma, bronchosis, cough, gonorrhoea, pulmonary catarrh, sores, syphilis, and wounds (JFM).

### Extracts:

Extracts showed antiinflammatory activity (500 mg/kg ipr) comparable with indomethacin, but did not show it when used orally (500 mg/kg p.o.) (X11021310). The compound 7-O-beta-D-glucopyranosyl-nutanocoumarin, from the root extract, inhib-

ited *Bacillus subtilis* and *Staphylococcus aureus* (62.5 g/ml and 125 g/ml, respectively) (X12764448).

## WEST INDIAN SNOWBERRY (*Chiococca alba* (L.) Hitchc.) ++

### RUBIACEAE



#### Illustrations:

fig 133 (MPG)

#### Synonyms:

*Chiococca anguifuga*; *C. brachiata*; *C. parviflora*; *C. racemosa* L.; *Lonicera alba* L.; fide (USN).

#### Common Names:

Acetillo (Sal.; AUS); Bejuco de Berac (Pr.; Sp.; AUS; AVP; USN); Bejuco de Berraco (Cuba; Pr.; AUS; AVP; JTR); Bejuco de Verraco (Cuba; Pr.; AUS); Bejuco Timacle (Dor.; AUS; AVP); Bejuco Timaque (His.; AUS); Bois Branda (Guad.; Mart.; St. Bart.; AUS; AVP); Briny Roots (Ma.; JFM); Buenda (Sp.; USN); Bwa Branda (Creole; Haiti; VOD); Caimica (Col.; AUS); Cainana (Brazil; AUS; MPB); Caínca (Brazil; Cuba; Eng.; AUS; EFS; JLH; JTR); Cainica (Col.; Sp.; AUS; AVP; USN); Canchacche (Maya; Mex.; AUS); Canica (Cuba; Mex.; AUS; AVP); Caninana (Brazil; Mex.; AUS); Caringa (Brazil; AUS); Casinga (Brazil; AUS; MPB); Casinga Cheirosa (Brazil; AUS); Chiocoque (Fr.; EFS); Cipó Cruz (Brazil; AUS; JFM; MPB; RAR); Croc Souris (Haiti; AUS; AVP); Crok Souri (Creole; Haiti; VOD); Cruzeirinha (Brazil; AUS; MPB); Cuanecatashich (Mex.; AUS); Dama de la Noche de Pine Ridge (Bel.; AUS; BNA); Dambê (Brazil; MPB); Dambrê (Brazil; AUS); David's Milkberry (Tex.; AUS; USN); David's Root (Eng.; AUS; USN); Davis Root (Eng.; USN); Falsa Cainca (Ma.; JFM); Jasmin Bâtard (Guad.; Mart.; AUS; JLH); Jasmin Bois (Fr.; Guad.; Mart.; AUS; USN); Kaa'Chsa (Brazil; RAR); Kanchak-Che (Maya; Mex.; AUS); Kok Souri (Creole; Haiti; MPG; VOD); Lágrimas de Guadelipe (Ma.; JFM); Lágrimas de María (Pan.; AUS; IED; TBC), Lágrimas de San Pedro (Sal.; AUS); Liana Cruz (Peru; RAR); Liane de Sorciers (Fwi.; AUS); Liane des Sorciers (Fr.; USN); Madreselva (Nic.; AUS; JTR); Madreselva de las Antillas (Wi.; AUS); Man Rat Root (Bah.; AUS; JFM); Milkberry (Eng.; AUS; USN); Nianca (Bol.; Chiriguano; DLZ); Ñianca (Bol.; Chiriguano; DLZ); Oreja de Ratón (Mex.; Sp.; AUS; AVP); Pax-Che (Bel.; Maya; AUS; BNA); Pay-Che (Bel.; Maya; AAB; AUS; BNA); Pegajoso (Mex.; AUS); Perilla (Mex.; Nic.; Peru; AUS; AVP); Perlilla (Nic.; Sp.; JTR; USN); Petit Branda (Guad.;

AUS); Pissabed (Bah.; AUS); Poaia (Brazil; AUS; MPB); Purga Preta (Brazil; AUS; MPB); Quimaque (His.; AUS); Quina de Raiz Preta (Brazil; AUS; MPB); Racine Noire (Fwi.; AUS; JFM); Raiz de Frade (Brazil; AUS; MPB); Raíz de Murciélago (Col.; AUS; AVP); Raiz de Quina (Brazil; AUS; MPB); Raiz de Serpentária (Sp.; AUS; MPB); Raiz de Verraco (Cuba; AUS; JTR); Raiz Negra (Peru; RAR); Raiz Preta (Brazil; AUS); Rat Bush (Bah.; AUS; JFM); Rat Root (Bah.; JFM); Schneebeere (Ger.; EFS); Skunk Root (Bel.; Eng.; AAB; AUS; BNA); Snakeroot (Ma.; JFM); Snowberry (Eng.; AVP; USN; VOD); Suelda con Suelda (Cuba; Mex.; AUS; AVP); Ti Branda (Guad.; Sp.; AUS; USN); Timaque (Dor.; His.; AUS; MPG); Tim-Tom Bush (Bar.; AUS); Tori Naca (Mex.; AUS); West Indian Snowberry (Eng.; AUS; USN); X-Can-Chak (Maya; Mex.; AVP); X-Kanchak-Che (Maya; Mex.; AUS); Yianoa (Bol.; Chiriguano; DLZ); Zorillo (Bel.; AAB; AUS; BNA). (Nscn).

### Activities:

Abortifacient (f; MPG; VOD); Antiasthmatic (f; AUS); Anticonvulsant (1; MPG); Antiedemic (f; AUS; EGG; RAR); Antiinflammatory (f1; MPB; VOD); Antimalarial (1; MPG); Antiseptic (1; MPG); Antispasmodic (f; AUS); Antitumor (f1; AAB; AUS; JLH); Aphrodisiac (f; AUS; VOD); Astringent (f; DAW); Bactericide (1; MPG); Bechic (f; DAW; JTR); Cardiotonic (1; MPB); Carminative (f; AUS); CNS-Depressant (1; MPG); Convulsant (1; MPG); Cytotoxic (f1; AAB; AUS); Depurative (f; JTR); Diuretic (f; AUS; EGG; RAR; VOD); Emetic (f; AUS; EGG; VOD); Emmenagogue (f; AUS; EGG; MPG; RAR); Emollient (f; AUS; JTR); Expecto-rant (f; EFS); Febrifuge (f; AUS); Herbicide (f; EGG; RAR); Hydragogue (f; AUS); Pectoral (f; AUS; VOD); Purgative (f; AUS; EGG; RAR; VOD); Sedative (1; MPG); Tonic (f; AUS; RAR); Uterorelaxant (1; MPG).

### Indications:

Acne (f; JTR); Adenopathy (f; AUS; MPG); Alcoholism (f; AAB; AUS); Amenorrhea (f; AAB; AUS); Arthrosis (f; JTR; VOD); Asthma (f; JFM; AUS); *Bacillus* (1; MPG); Back-ache (f; JFM); Bacteria (1; MPG); Bleorrhagia (f; DAW); Bronchosis (f; JFM); Cancer (f1; AAB; AUS; JLH); Cardiopathy (1; MPB); Colitis (f; AAB; AUS); Congestion (f; JTR); Constipation (f; AUS); Convulsions (1; MPG); Coughs (f; JFM); Cramps (f; AUS; JFM); Dementia (f; AAB; AUS); Depression (f; AAB; AUS); Dermatitis (f; AUS; JFM); Dropsy (f; AUS; DLZ); Dysmenorrhea (f; AUS); Edema (f; AUS; EGG; JFM; RAR); Endometriosis (f; AAB; AUS); Enterosis (f; AAB; AUS); Enuresis (f; AUS); Fever (f; AUS); Fungus (1; X10389274); Ganglia (f; MPG; VOD); Gastrosis (f; AUS); Gonorrhoea (f; JFM; JTR); Headache (f; JTR); Hepatosis (f; JLH); Impotence (f; JFM); Induration (f; JLH); Infec-tion (1; MPG); Inflammation (f1; MPB; VOD); Insomnia (1; MPG); Laryngosis (f; JFM); Malaria (1; MPG); Mycosis (1; X10389274); Nephrosis (f; JFM); Nervousness (f; AAB); Neurosis (f; AUS); Pain (f; AAB; AUS; JFM); *Plasmodium* (1; MPG); Rashes (f; AAB); Rheumatism (f; VOD); *Saccharomyces* (1; X10389274); Snake Bite (f; DAW; DLZ; EGG; IED; SOU); Sores (f; AAB; AUS); Tuberculosis (f; AUS); Tumors (f1; AAB; AUS; JLH); Ulcers (f; AAB; AUS); Urethrosis (f; VOD); VD (f; AUS; JFM; MPG); Witchcraft (f; AUS); Yeast (1; X10389274).

### Dosages:

FNFF = ?

- Antilleans poultice the leaves onto scirrhus tumors (JLH).
- Barbadians take root tea as abortifacient and purgative (JFM).
- Belizeans place 1 handful chopped root in 1 qt rum, vodka, or gin, soaking in sun for 5 days, strain and take 1 shot daily until mixture is gone, or finish it all at once, for alcoholism (AAB).

- Belizeans take strained tea (handful chopped roots in 3 cups water 10 min) for colitis, constipation, dementia, depression, dysmenorrhea, enterosis, gastrosis, nervousness, and pain (AAB).
- Brazilians use root decoction for asthma, bronchosis, cough, and laryngitis (JFM).
- Cubans apply leaves to skin eruptions (JFM), roots as depurative for VD, often with caña brava.
- Dominican Caribs mix flowers with those of *Petraeakohautiana* as an abortifacient tea (VOD).
- Dominicans take the root infusion for gangliar inflammations (MPG).
- Haitians mix leaves with *Justicia pectoralis* (4 g/500 g water) for cough (JFM).
- Haitians poultice leaves with those of sourgrass (*Trichacne*) on sores (JFM).
- Haitians take the diuretic, emetic, and purgative root decoction for rheumatism (VOD).
- Mayans believe this to sharpen the intellect, important to the shaman in difficult diagnoses and to dispel witchcraft (AAB).
- Mexicans use the root as abortifacient and emmenagogue (MPG).

**Downsides:**

A strong remedy not to be used internally on older and weaker patients (AAB; AUS). As of July 2007, the FDA Poisonous Plant Database listed five titles alluding to toxicity of this species.

**Extracts:**

Alboside IV showed moderate activity toward the DNA repair-deficient mutant RS321 of *Saccharomyces cerevisiae* (X10389274).

**PAREIRA (*Chondrodendron tomentosum* Ruiz & Pav.) +  
MENISPERMACEAE**

**Illustrations:**

fig 69 (DAV)

**Synonyms:**

*Chondrodendron hypoleucum* Standl.

**Notes:**

The English common names listed by Taylor (2005), referenced as RAI, probably belong more appropriately to *Cissampelos pareira*, in a different genus but in the same family.

**Common Names:**

Ampihuasca (Peru; Sp.; LOR; MDD); Ampihuasca Blanca (Peru; RAI; SAR); Antinoopa (Peru; EGG; RAI); Atinupa (Peru; EGG; RAI; RAR); Bejuquito Hediondo (Bol.; DLZ); Comida de Venados (Peru; EGG; RAI; RAR); Curare (Peru; Sp.; EGG; LOR; MDD); Curari (Peru; EGG; RAR); Grieswurzel (Ger.; RAI); Ice Vine (Eng.; RAI); Isiporé (Bol.; Chiriguano; DLZ); Nasacata (Siona; SAR); Ourari (Peru; EGG); Pareira (Eng.; CR2; USN); Parreira Brava (Brazil; RAI; RAR); Parrera Brava (Brazil; RAR); Uva da Serra (Brazil; RAI); Uva do Mato (Brazil; RAI); Velvet Leaf (Eng.; RAI); Vigne Sauvage (Fr.; RAI); Woowari (Peru; EGG; RAR); Woralí (Peru; EGG; RAR).

**Activities:**

Analgesic (1; RAI); Anesthetic (1; PH2); Anticonvulsant (1; FNF); Antiedemic (f; EGG; RAR); Antiseptic (f; EFS; RAI); Aperient (f; EFS); Bitter (1; PH2); Curare (1; DAV; EGG); Diuretic (f; DAV; EGG; PH2; RAI); Emmenagogue (f; DAV; EGG; HHB; PH2; RAI); Feb-



rifuge (f; DAV; EGG; HHB; RAI); Hypotensive (1; FNF); Laxative (f; RAI); Litholytic (f; HHB; RAR); Myoparalytic (1; PH2); Myorelaxant (f1; PH2; RAI); Tonic (f; RAI); Toxic (1; EFS; EGG).

### Indications:

Amenorrhea (f; RAI); Bites (f; PH2); Bladder Stones (f; HHB); BPH (f; PH2); Bruises (f; DAV; RAI); Cardiopathy (f; EGG); Constipation (f; RAI); Convulsions (1; FNF); Cramps (1; FNF); Cystosis (f; HHB); Dropsy (f; DAV; HAD); Earache (f; RAI); Edema (f; DAV; EGG; RAI; RAR); Fever (f; DAV; EGG; HHB; RAI); Gonorrhea (f; HAD); High Blood Pressure (1; FNF); Infection (f; EFS; RAI); Inflammation (f; PH2); Jaundice (f; HAD); Kidney Stones (f; DAV; HHB; RAI); Leukorrhea (f; HAD); Madness (f; DAV; RAI); Nephrosis (f; DAV; EGG); Oliguria (f; RAI); Orchosis (f; DAV; EGG; RAI); Pain (1; PH2; RAI); Prostatitis (f; RAI); Rheumatism (f; HAD); Snake Bite (f; PH2; RAI); Stones (f; EGG; HHB; RAR); Swelling (f; CTD; RAI); Tetanus (1; FNF); Tonic (f; HAD); Urethrosis (f; HHB); UTIs (f; PH2; RAI); VD (f; HAD).

### Dosages:

FNFF = X. One cup root decoction 2×/day (RAI).

- Amazonians use as antiseptic, curare, diuretic, febrifuge, and laxative (RAI).
- Bolivians use the plant in arrow poisons (DLZ).
- Brazilians use for amenorrhea, arrow poison, bruise, earache, edema, fever, kidney stones, mental derangements, oliguria, and snake bite (RAI).
- Peruvians use for amenorrhea, arrow poison, earache, edema, fever, kidney stones, madness, oliguria, and snake bite (DAV; RAI).
- Venezuelans use the plant in arrow poisons (RAI).

### Downsides:

Not covered (AHP). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). But they designate no dosage (JAD). Contraindicated in pregnancy or lactation; caution, not recommended if hypotensive (RAI). Overdoses of tubocurarine (and other curare alkaloids) can cause respiratory paralysis and hypotension. LD50s are less than 1 mg/kg, 0.56 scu in mice, 0.5 ipr in mice, 0.18 intravenously in mice, and 0.2 mg/kg intravenously in rabbits. An injection of neostigmine methylsulfate is suggested as an antidote (HAD). As of July 2007, the FDA Poisonous Plant Database listed 14 titles alluding to toxicity of this species.

### Extracts:

Tubocurarine is reportedly anaphylactic (antidote = neostigmine), anticonvulsant, antidotal to strychnine, antitetanic, cardiovascular (0.1 mg/kg ivn cat) (BBE), CNS-active (0.05 mg/kg ivn cat) (BBE), histaminic, hypotensive, myorelaxant (10–30 mg/ivn/man) (M29), and vagolytic; LD50 of 28 mg/kg orl inm rats, LD50 = 33 orl mus, LD50 = 0.2 ivn rbt, LD50 = 0.3 scu rat (BBE), and LD50 = 0.53 scu mus (BBE).

## JACK IN THE BUSH (*Chromolaena odorata* (L.) R. M. King & H. Rob.) +

### ASTERACEAE

### Illustrations:

p 149 (TRA)

### Synonyms:

*Eupatorium brachiatum* Witc.; *E. conyzoides* Vahl; *E. klattii* Milsp.; *E. odoratum* L. (basonym); *Osmia odorata* (L.) C. Schultz; fide (JTR; USN).

**Notes:**

One Haitian rainmaker reportedly wraps a mortar-pestle in the leaves to stop the rain and make the sun shine (VOD).

**Common Names:**

Albahaquilla (Ma.; JFM); Archangel (Jam.; Trin.; AUS); Armstrong's Weed (Eng.; AUS); Asampatcha (Ker.; WO2); Assam-Lota (Assam; Ben.; WO2); Banmara (Nepal; NPM); Banmasuwa (Nepal; NPM); Besi Banmara (Magar; NPM); Bhayamara (Chepang; NPM); Bitterbush (Eng.; AUS; USN); Bonmara (Danuwar; NPM); Butterfly-Weed (Eng.; USN); Canutillo (Ma.; JFM); Cariaquillo Santa María (Pr.; AUS; AVP); Chilquita (Col.; IED); Chimuyo (Cuba; Ven.; AUS); Chisca (Peru; RAR); Chiva (Ma.; JFM); Christmas Bush (Eng.; AUS; NPM; USN); Christmas Rose (Eng.; AUS); Chukutenay (Nepal; NPM); Ciguapazle (Ma.; JFM); Cihuapastle (Mex.; AVP); Cihuapatle (Mex.; Nahuatl; AUS; AVP); Communist Weed (Eng.; WO2); Crucetilla (Mex.; AUS); Crucita (Jam.; Mex.; AUS; AVP); Crucita Oleroso (Nic.; AUS); Cruz de Campo (Brazil; AUS); Cruzeiro (Brazil; AUS); Cruz Quem (Brazil; AUS); Curarina (Sp.; AUS); Curarina de Monte (Sp.; AUS); Devilweed (Eng.; USN); Dodiguru (Garo; WO2); Eupatoire (Haiti; AVP); Fey Langchat (Creole; VOD); Fey Langichat (Creole; VOD); Filagrama de Savana (Cuba; AUS; JFM); Fleurit Noël (Guad.; Haiti; Mart.; AUS; AVP; VOD); Flewi Nwel (Trin.; AUS); Garrapata (Nic.; AUS); Geri Tout (Creole; VOD); Guérit Tout (Creole; Haiti; AHL; AVP; VOD); Guérit Trope Vit (Creole; VOD) Guérit Vite (Creole; Haiti; AVP; VOD); Hagonoy (USN); Hawi (Nepal; NPM); Hemp Agrimony (Ma.; AUS; JFM); Hierba de Chiva (Pan.; IED; JFM); Hotz (Bel.; BNA); Jack in a Bush (Eng.; Jam.; AVP; VOD); Jack in the Bush (Bel.; Eng.; Jam.; Trin.; AUS; BNA; CR2; USN); Jackney Bush (Ma.; JFM); Kingsweed (Eng.; AUS); Kluset (Creole; Trin.; AUS); Krus Tok'te (Huastec; Mex.; AUS); Langa Chata (Dor.; AHL; AVP); Lang Chat (Creole; Haiti; TRA; VOD); Langi Chat (Creole; VOD); Lang Shat (Creole; VOD); Langue à Chatte (Guad.; Haiti; AVP); Langue-Chatte (Haiti; AVP); Langui Chatte (Haiti; AVP); Lohasiya (Danuwar; NPM); Madhuban (Tamang; NPM); Mata Finca (Dor.; AHL); Mejorana (Sp.; AUS; JFM); Niquibei (Dom.; AVP); Niquibey (Dor.; Taino; AUS; AVP); Paleca (Pan.; AUS; IED); Palotal (Ven.; AVP); Paraffienbos (Afrikaans; USN); Paraffin Weed (Eng.; AVP; USN); Parafinbush (Eng.; AVP); Pesebritto (Ven.; AVP); Pichas (Tripura; WO2); Rey del Todo (Sp.; AUS); Rompe Zaragüey (Cuba; Dor.; AHL; AVP); Salah (Chepang; NPM); Salvia (Col.; IED); Samsimari (Garo; WO2); Santa María (Pr.; AUS; AVP); Siam Weed (Eng.; AUS; NPM; USN); Sich (Maya; Mex.; AUS; AVP); Sing Jhar (Chepang; NPM); Suplicio (Sp.; AUS); Sweet Scented Hemp Agrimony (Jam.; AVP); Thoroughwort (Eng.; AVP); Thulo Banmara (Majhi; NPM); TiteHawi (Nepal; NPM); Tocabal (Ma.; JFM); Tocaban (Ma.; JFM); Tokabal (Maya; Mex.; AUS); Tokaban (Ma.; JFM); Tonkabean (Jam.; AUS); Trebol de Olor (Cuba; AVP); Triffid Weed (Eng.; AUS; USN); Tsitsaque-Teutzzushu (Mex.; Totonac; AUS); Turpentine Weed (Eng.; AVP); Vanilla (Jam.; AUS); Varejón de Caballo (Col.; AUS); Xtokabal (Mex.; AVP); Yax-hatz (Bel.; AUS; BNA); Zanga de Grullo (Cuba; AUS); Zaragüey (Dor.; AHL). (Nscn).

**Activities:**

Analgesic (f; AAB); Antiallergic (1; TRA); Anticancer, lung (1; X15202555); Antie-demic (1; X16280100); Antifertility (f; WO2); Antiinflammatory (f1; VOD; X11348739; X16280100); Antioxidant (1; X11767105); Antiradicular (1; MPG); Antiseptic (f1; TRA; WOI; X9395667); Antispasmodic (1; MPG); Antitussive (f; VOD); Bactericide (1; AUS; TRA); Cathartic (f; WO3); Cytotoxic (1; MPG; X15202555); Decongestant (f; AHL); Digestive (f; VOD); Edemic (1; X16280100); Emetic (f; WO3); Emmenagogue (f; JFM; VOD); Fungicide (1; X12924132; X15202555; X16567942); Hemostat (f; WO2); Hepato-protective (1; MPG); Herbicide (1; X12924132); Insecticide (1; X11124374); Mercury-

Binder (1; X15948592); Molluscicide (1; MPG); PAF-Inhibitor (1; X17541171); Piscicide (f; AUS); Spasmogenic (1; MPG); Stomachic (f; JFM); Tonic (f; AUS; JFM; JTR); Vulnerary (f1; AUS; X11767105; X16280100).

### Indications:

Acne (1; X16009519); Allergies (1; TRA); Amenorrhea (f; AHL; VOD); Asthma (f; VOD); *Bacillus* (1; AUS; TRA); Bacteria (1; AUS; TRA); Bleeding (f; WO2); Bruises (f; WO2); Burns (1; X11679139); Cancer, lung (1; X15202555); Chafing (f; NPM); Cholera (f; JTR); Colds (f; AAB; AUS; JFM; VOD); Congestion (f; AHL); Coughs (f; AAB; AUS; JFM; VOD); Depression (f; AAB; AUS); Dermatitis (f1; AUS; JFM; VOD; X9395667); Diabetes (f; AUS; JFM); Dyspepsia (f; VOD); Edema (1; X16280100); *Escherichia* (1; MPG; TRA); Fever (f; AUS; JTR; VOD); Flu (f; VOD; WO2); Fungus (1; TRA; X12924132; X15202555; X16567942); Furuncles (f; TRA); Gas (f; VOD); Gastrosis (f; AUS); Gonorrhoea (1; JFM; TRA); Headache (f; AAB); Indigestion (f; VOD); Infection (f1; AUS; TRA; WO1; X12924132; X15202555; X16567942; X9395667); Inflammation (f1; VOD; X11348739; X16280100); Insomnia (f; AAB; AUS); Laryngitis (f; AUS; VOD); Malaria (f; JFM; WO2); *Micrococcus* (1; WO2); *Mycobacterium* (1; X15202555); *Neisseria* (1; TRA); Nephrosis (f; AUS; JFM); Nervousness (f; AAB; AUS); Neurasthenia (f; JTR); Pain (f; AAB); Piscicide (f; JFM); Pregnancy (f; VOD); Propionibacterium (1; X16009519); Rheumatism (f1; TRA; VOD); Sores (f1; AUS; NPM; TRA); Spasms (1; MPG); *Staphylococcus* (1; MPG; TRA); Stomachache (f; AUS; JFM); *Streptococcus* (1; X1453706); Swelling (1; X16280100); Tonsillitis (f; VOD); Urethritis (1; TRA); VD (f1; TRA) Wounds (f1; AUS; JFM; NPM; X11767105; X16280100).

### Dosages:

FNFF = ?

- Barbadians, Belizeans, Panamanians, and Trinidadans take leaf decoction for colds and cough (AUS).
- Belizeans and Hispaniolans use the tea for depression, insomnia, laryngitis, and nervousness (AUS).
- Colombians use the whole plant to fight tumors (MPG).
- Cubans use for cholera, dermatoses, fever, and neurasthenia (JTR).
- Dominicans poultice crushed leaves onto inflammation and sloughing skin (VOD).
- Dominicans take mashed leaves in milk for asthma (VOD).
- Dominicans use leaf tea for dyspepsia in pregnant women and to treat uterine malposition (VOD).
- Guatemalans consider the root stomachic and tonic (JFM).
- Haitians use leaf tea or decoction for colds, cough, dyspepsia, fever, flu, gas, laryngitis, rheumatism, and tonsillitis (VOD).
- Jamaicans take leaf decoction for fever, as a wash for dermatoses (JFM).
- Mayans use decoction for nephrosis and stomachache (JFM).
- Mexicans use root decoction as emmenagogue (JFM).
- Nepalese use the plant juice for chafing, cuts, and wounds (NPM).
- Nigerians use leaf decoction for cough, influenza, internal bleeding, and malaria (WO2).
- Panama Jamaicans take leaf tea for colds (IED).

### Downsides:

Plants toxic, at least to grazing animals (AUS). Plants, especially roots and mature flower heads, contain n-oxides of 5 pyrrolizidine alkaloids (WO3). As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.

**Extracts:**

Hydroalcoholic extract LD50 = 1,000 mg/kg ipr rat (MPG). Leaf extract and fractions inhibit *in vitro* growth of *Cryptococcus neoformans*, *Microsporium gypseum*, *Trichophyton mentagrophytes*, and *T. rubrum*, MIC = 62.5–500 µg/ml for extract and 25–100 µg/ml for fractions (X16567942). Aqueous extract reduced paw oedema in carrageenan-induced oedema in rats (25–200 mg/kg) (X16280100). From the flower, isosakuranetin moderately mycobactericidal for *Mycobacterium tuberculosis* (MIC = 174.8 µM), acacetin moderately cytotoxic for human small cell lung cancer (MIC = 24.6 µM), and luteolin moderately toxic for human small cell lung cancer (MIC = 19.2 µM) (X15202555).

**COCO-PLUM (*Chrysobalanus icaco* L.) ++****CHRYSOBALANACEAE****Illustrations:**

p 231 (LWW)

**Synonyms:**

*Chrysobalanus icaco* var. *pellocarpus* (GFW Mey.) DC.; *C. pellocarpus* GFW Mey.

**Common Names:**

Abajeru (Tupi; AUS); Airu (Por.; AVP); Ajuru (Ma.; JFM); Ariu (Ma.; Por.; AVP; JFM); Bois Rada (Guad.; AVP); Caco (Chiapas; AUS); Capollaixpehualli (Mex.; JLH); Caramio (Arawak; Guy.; AUS; LWW); Caye Caulker Plum (Bel.; BNA); Ciruela de Algodon (Ma.; Mex.; Sp.; AVP; JFM; USN); Cocoa Plum (Eng.; AVP); Coco Plum (Bel.; Dwi.; Eng.; Vi.; BNA; LWW; USN); Ecacas (Dwi.; LWW); Fat Poke (Wi.; AUS); Fat Pork (Dom.; Dwi.; Guy.; Trin.; LWW); Gicaco (Ma.; JFM); Gopher Plum (Eng.; AVP); Guajeru (Ma.; JFM); Guejuru (Brazil; AVP); Hekako (Creek Seminole; AUS); Hicaco (Pr.; LWW); Hicaco Plum (Bel.; BNA); Higagu (Garifuna; IED); Hika Kapi (Mikasuki; AUS); Hikáki (Mikasuki Seminole; AUS); Hikako (Creek Seminole; AUS); Icacier (Fr.; USN); Icacó (Bel.; Pr.; Sp.; BNA; LWW; USN); Icacó de Costa (Cuba; LWW); Icacó de Playa (Ma.; JFM); Icacó Dulce (Cuba; LWW); Icacó Negro (Sal.; LWW); Icacopflaume (Ger.; USN); Icacó Plum (Eng.; TAM); Icacó Rodado (Sal.; LWW); Icaque (Guad.; Mart.; Trin.; LWW); Icaque Blanche (Wi.; AVP); Icaque des Bois (Guad.; AVP); Icaque Rouge (Wi.; AVP); Icaquier (Fr.; AHL; USN); Jicaco (Ma.; JFM); Jicaco Plum (Bel.; BNA); Jicaquillo (Ma.; JFM); Jijaco (Pr.; LWW); Kakata (Bel.; AUS; BNA); Kocho Rhum (Bel.; BNA); Koelimiru (Arawak; Ma.; AUS; JFM); Kulimiro (Guy.; LWW); Kurimiru (Arawak; AUS); Mafuli (Congo; AVP); Nocuana Bebebe (Zapotec; AUS); Nocuana Pebebe (Zapotec; AUS); Pepe (Zapotec; AUS); Pe-Pepe (Zapotec; AUS); Pe-Pepe Niza-Tao-Pani (Zapotec; AUS); Pigeon Plum (Guy.; LWW); Pomme Zicaque (Guad.; AVP); Pork-Fat Apple (Bah.; LWW); Pruium (Sur.; LWW); Prune Colon (Fr.; USN); Prune Coton (Fr.; Guad.; AUS; AVP); Prune de Guyane (Fr. Guy.; LWW); Prune Zicaque (Guad.; AVP); Prunier Coton (Wi.; AVP); Prunier d'Anse (Fr. Guiana); Prunier de l'Anse (Fr. Guiana; AVP); Prunier Icaque (Ma.; JFM); Red Coco-Plum (Wi.; LWW); Sirínguela (Garifuna; IED); Spanish Nectarine (Eng.; TAN); Tococo (Timucua; AUS); Uajura (Ma.; JFM); Uichup (Cuna; IED); White Coco-Plum (Bah.; LWW); White Plum (Bah.; LWW); Xicaco (Ma.; Oaxaca; AUS; JFM); Zicaque (Trin.; LWW); Zicaque (Dom.; Haiti; Hon.; Mex.; AUS; JFM; LWW); Zicaquier (Haiti; AVP).

**Activities:**

Abortifacient (f; AHL); Antiangiogenic (1; X10812020); Anticancer (1; X12565171); Antioxidant (1; X15261992); Antileukemic (1; X12565171); Antitumor (1; X12565171); Astringent (f; IED; LWW); Hemostat (f; JFM); Hypoglycemic (f; AUS).

**Indications:**

Bleeding (f; JFM); Blennorrhagia (f; AUS); Cancer (f1; JLH; X12565171); Condyloma (f; JLH); Cystosis (f; AUS); Diabetes (f1; AUS); Diarrhea (f; IED; JFM); Dysentery (f; AHL); Hyperglycemia (f; AUS); Leukemia (1; X12565171); Leukorrhea (f; JFM); Nephrosis (f; AUS); Tumors (1; X12565171); Warts (f; JLH).

**Dosages:**

FNFF = !! Widely used for food in the Caribbean, even canned and exported from Brazil, Costa Rica, and Cuba. Fruits (and seeds) eaten after skewering; the seeds taste like almonds after roasting (AUS). Bark or root decoction for dysentery (JFM); 5 g fruit, bark, leaf, or root in 250 g water, 2–3 cups/day for diarrhea, hemorrhage, and leukorrhea (JFM).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**Extracts:**

Triterpenoids from leaf fractions inhibited growth and induced apoptosis of K562 erythro-leukemia cell line and inhibited proliferation of Lucena 1, a vincristine-resistant derivative of K562 with MDR characteristics (X12565171). Methanol extract exhibited 44% angiogenesis inhibition in chicken embryonic tissue (X10812020).

## STAR-APPLE (*Chrysophyllum cainito* L.) ++

### SAPOTACEAE

**Illustrations:**

fig 70 (DAV); p 439 (L&W)

**Common Names:**

Abiu do Pará (Brazil; AUS); Aguay (Arg.; AVP); Ajara (Por.; AVP); Apra (Sur.; L&W); Balata Blanca (Peru; AVP); Buis Caimitier (Fr.; AVP); Caianito (Por.; AVP); Caimite (Fr.; Trin.; L&W); Caimite des Jardines (Wi.; AHL); Caimite Franche (Wi.; AHL); Caimitero (AUS); Caimitier (Fr.; Haiti; AVP; L&W; USN); Caimitier a Feuilles d'Or (Haiti; AVP); Caimito (Bel.; Dor.; Por.; Sp.; AHL; AVP; BNA; L&W; USN); Caimito Blanco (Sp.; USN); Caimito Morado (Sp.; USN); Caimittier (Ma.; JFM); Caimo (Col.; L&W); Caimo Morado (Col.; L&W); Cainit (Ma.; Vi.; Wi.; AUS; JFM; L&W); Cainitier (Ma.; JFM); Cainito (Brazil; AVP; L&W); Cauje (Ma.; JFM); Cayumito (Ma.; Mex.; AUS; JFM); Commito (Bel.; BNA); Damsel (Bel.; AVP); Estrella (Sp.; AVP); Goldenleaf (Col.; L&W); Grand Caimite (Wi.; AHL); Guayabillo (Sal.; AVP); Kaimit (Trin.; L&W); Kê-Sê-Weé-Ree (Arawakan; Yukuna; AUS); Luma (Ma.; JFM); Macoucou (Fr. Guy.; AVP); Madura Verde (Col.; L&W); Olivoa (Arg.; AVP); O Xumacuti (Cashibo; RAR); Pied Caimite (Haiti; AVP); Pomme Surette (Fr.; AVP); Satinleaf (Fla.; AVP); So-Da-Deé (Andoke; Witototan; AUS); Star-Apple (Bel.; Eng.; L&W; USN); Star Plum (Eng.; Ma.; JFM); Sterappel (Curasao; Sur.; L&W); Sternapfel (Ger.; USN); Ta-Uh (Tikuna; AUS).

**Activities:**

Analgesic (f; DAW); Antiinflammatory (f; JAF50:1379); Antioxidant (1; JAF50:1379; X11879006); Astringent (f; AHL; DAW); Emollient (f; RAR); Hypoglycemic (f; DAV); Laxative (f; AHL; DAW); Pectoral (f; JFM); Refrigerant (f; DAW).

**Indications:**

Abscesses (f; DAV); Angina (f; JFM); Cancer (f; JFM); Catarrh (f; JFM); Constipation (f; AHL; DAW); Cystosis (f; JFM); Dermatitis (f; RAR); Diabetes (f; AHL; DAV; DAW); Diarrhea (f; JFM); Dysentery (f; DAW); Enterosis (f; DAW); Fever (f; DAW; EB30:134; IED; JFM); Fungus (f; DAV); Gingivitis (f; DAV); Gonorrhea (f; JFM); Hyperglycemia (f; DAV); Infection (f; DAV); Inflammation (f; JAF50:1379); Laryngitis (f; JAF50:1379); Mastitis (f; DAW); Mycosis (f; DAV); Pain (f; DAW); Pneumonia (f; JAF50:1379); Sores (f; DAV; RAR); VD (f; IED).

**Dosages:**

FNFF = !! Fruits eaten fresh, parboiled, preserved, or made into a dessert called matrimony (pulp with milk, orange juice and spices). Seed kernels also used in imitation almond or nougat desserts (FAC). Gargle fruit decoction for angina (JFM).

- Colombians use latex as antidysenteric, diuretic, and febrifuge (JFM).
- Ticos take bark decoction for catarrh, cystosis, diarrhea, and gonorrhea (JFM).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

Ethyl acetate fraction exhibited high antioxidant activity in DPPH assay (IC<sub>50</sub> = 22 µg/ml), with quercetin showing the highest antioxidant activity (IC<sub>50</sub> = 40 µM) (X11879006).

**KISWARA (*Chuquiraga insignis* (Willd.) Bonpl.) +  
ASTERACEAE**

**Illustrations:**

p 121 (BEJ); p 610 (ROE)

**Synonyms:**

*Chuquiraga fruticosa* Juss.; *C. jussieui* J.F. Gmelin; *C. lancifolia* H & B; *C. microphylla* H & B; *C. peruviana* Jaime St. Hil.; *C. pseudoruscifolia* Muschler; *C. rhynchophora vanishtonii* Heckel; *Joannesia insignis* (Willd.) Pers.; *Johannia insignis* Willd.; fide (BEJ; MPG; USN).

**Common Names:**

Chuquiraga (Ecu.; Sp.; MPG); Chuquiragua (Ecu.; Sp.; BEJ; MPG); Inca Llaulli (Peru; ROE); Kentayllaulli (Peru; ROE); Kiswara (Peru; ROE); Kiswara Tiutumpi (Peru; ROE); Qhari-sirviy (Peru; ROE). (Nscn).

**Activities:**

Choleretic (f; MPG); Diuretic (f; MPG; ROE); Febrifuge (f; DAW); Hemostat (f; ROE); Litholytic (f; ROE); Sedative (f; MPG); Stimulant (f; MPG); Tonic (f; MPG); Vermifuge (f; MPG).

**Indications:**

Arthrosis (f; ROE); Bleeding (f; ROE); Bronchitis (f; ROE); Calculus (f; ROE); Childbirth (f; ROE); Colds (f; BEJ); Coughs (f; BEJ; MPG); Dysuria (f; ROE); Fever (f; DAW; MPG); Flu (f; BEJ); Hepatitis (f; MPG); Insomnia (f; MPG); Malaria (f; BEJ); Nephrosis (f; ROE); Oliguria (f; MPG; ROE); Osteitis (f; BEJ); Pain (f; BEJ); Prostatitis (f; ROE); Respiritis (f; ROE); Rheumatism (f; ROE); Sores (f; BEJ); Sore Throat (f; ROE); Stones (f; ROE); Urethritis (f; ROE); Worms (f; MPG).

**Dosages:**

FNFF = ? 3–4 branches/liter water in decoction or tea; 1–2 cups/day (MPG).

- Andean Peruvians drink floral tea during childbirth, also for bronchitis, flu, and rheumatism, often with lemon (ROE).
- Andean Peruvians take decoction of leaves and flowers for nephrosis and prostatitis (ROE).

## RED CINCHONA (*Cinchona officinalis* L.) +

### RUBIACEAE

**Notes:**

McGuffin et al. (2000) prefer that *C. officinalis* and *C. pubescens* be called “red cinchona” and *C. callisaya* “yellow cinchona.” Both seem to share many morphological, chemical, and folkloric attributes. They are probably pretty tough to distinguish when reduced to powdered bark. Consider the entries below as likely to accrue to one as to the other species, e.g., Taylor’s entries (as RAI) may apply to *C. calisaya*, *C. ledgeriana*, *C. officinalis*, and *C. succirubra*. Felter and Lloyd (1898) entries (as FEL) sometimes based on medical uses of quinine at the beginning of the 20th century. Egg (1999) treats *C. officinalis* and *C. pubescens* as distinct species, but listing only fever and malaria as indications for any Peruvian cinchona (EGG), as noted also by Roersch (1994). García et al. (1998) entries (as VAD) assigned to *C. succirubra*.

**Common Names:**

Capirona de Bajo (Peru; EGG); Cargua Cargua (Peru; EGG); Carua-Carua (Peru; EGG); Cascarilla (Peru; EGG); China Bark (Eng.; RAI); Cinchona Bark (Eng.; RAI); Corteza Roja (Peru; EGG); Countess’ Powder (Eng.; RAI); Cuarango (Peru; EGG); Fever Tree (Eng.; RAI); Ichu Cascarilla (Peru; EGG); Jesuit’s Bark (Eng.; Ocn.; AH2); Jesuit’s Powder (Eng.; RAI); Jichukina (Peru; ROE); Kinakina (Sp.; RAI); Lojabark (USN); Mañirita (Ashaninka; Campa; Peru; EGG); Motosolo (Peru; EGG); Palo Blanco (Peru; EGG); Patorech (Amuesha; Peru; Yanesha; EGG); Peruvian Bark (Eng.; Ocn.; AH2); Quina (Sp.; RAI); Quina Rubra (Spain; VAD); Quinine (Eng.; CR2; RAI); Red Cinchona (Eng.; Scn.; AH2); Red Quinine (Eng.; Ocn.; AH2); Yellow Cinchona (Eng.; Ocn.; AH2); Yellow Quinine (Eng.; Ocn.; AH2).

**Activities:**

Abortifacient (1; FEL; WO2); Amebicide (1; RAI); Analgesic (f1; CRC; PNC; RAI; WO2); Anesthetic (1; CRC; DAD; RAI); Anthelmintic (1; FNF; JAD); Antiarrhythmic (f; CRC); Antichronotropic (1; MPG); Antiinflammatory (f; HAD); Antimalarial (f1; CRC; EGG; PNC; RAI); AntiMDR (1; RAI); Antiperiodic (f; CRC); Antiseptic (1; CRC; FNF; MPI; RAI); Antisialagogue (1; RAI); Antispasmodic (f1; RAI); Antitumor (1; JFM); Astringent (1; CRC; FNF; HHB); Bactericide (1; RAI; WO2; X16483385); Bitter (2; CRC; JAD; SHT); Cardiodepressant (1; PNC; WO2); Cardiotonic (1; VAD; 60P); Cholagogue (1; VAD); Cicatrizant (1; VAD); CNS-Depressant (1; WO2); Contraceptive (f; CRC; RAI); Dentifrice (f; CRC); Digestive (f1; RAI; 60P); Febrifuge (f1; CRC; RAI); Fungicide (f1; RAI); Gastrostimulant (2; KOM); Hypoglycemic (1; WO2); Hypotensive (1; WO2); Insecticide (f1; CRC; RAI); Insectifuge (f; EGG); Nervine (1; RAI); Orexigenic (f12; HHB; KOM; RAI); Oxytoxic (1; CRC; WO2); Parasiticide (1; RAI); Schizonticide (f; CRC); Sialagogue (2; KOM; PH2); Stimulant (f; WO2); Stomachic (f; CRC; HHB); Teratogenic (1; WO2); Tonic (1; CRC; DAD; 60P); Uterotonic (f; CRC; RAI).

**Indications:**

Adenopathy (f; CRC; JLH; RAI); Ague (f; FEL); Alcoholism (f1; PH2; RAI); Alopecia (f; CRC; RAI; VAD); Amebiasis (1; CRC; FNF; RAI; WO2); Anemia (f; FEL; HHB; PH2; RAI); Anorexia (f12; KOM; PHR; PH2; RAI); Arrhythmia (f1; CRC; WO2); Arthrosis (f; 60P); Asthma (f; HHB); Bacteria (1; RAI; WO2; X16483385); Bleeding (1; HHB); Cachexia (f; FEL); Cancer (f1; CRC; JFM; JLH; PHR; PH2; RAI); Cancer, breast (f; CRC); Cancer, gland (f; CRC; JLH); Cancer, liver (f; CRC); Cancer, mesentery (f; CRC); Cancer, spleen (f; CRC); Carcinomata (f; CRC); Cardiopathy (1; RAI; VAD; 60P); Carditis (f; CRC); Catarrh (f; MPI); Childbirth (f; FEL; ROE); Chills (f; 60P); Chlorosis (f; FEL); Cholecystosis (f; RAI); Colds (f1; CRC; PNC; 60P); Conjunctivosis (f; FEL); Coughs (f; WO2); Cramps (f1; CRC; PH2; PNC; RAI; 60P); Dandruff (f; RAI); Debility (f; FEL; GMH; PH2); Dermatitis (f; PH2); Diabetes (1; WO2); Diarrhea (f; CRC; PH2; RAI; 60P); Diphtheria (f; FEL); Dysentery (f1; CRC; MPI; RAI; WO2); Dyskinesia (1; VAD); Dyspepsia (f12; FEL; KOM; PHR; PH2; RAI; 60P); Elephantiasis (f; WO2); Enterosis (f; RAI); Erysipelas (f; FEL); Fatigue (f; RAI); Felons (f; CRC; JLH); Fever (f1; CRC; FNF; JAD; PH2; RAI); Flu (f1; CRC; PH2; PNC; RAI; WO2); Fungus (f1; RAI); Gas (f12; PHR; PH2; RAI); Gastrosis (f; PHR; RAI); Gonorrhoea (f; FEL); Hangover (f; CRC; RAI); Hay Fever (f; FEL; MPI); Headache (f; FEL; RAI; WO2); Heart (1; MPG); Hemicrania (f; MPI); Hemorrhoids (f1; CRC; WO2); Hepatosis (f; JLH; RAI); Herpes (1; FNF); Hiccups (f; CRC); High Blood Pressure (1; WO2); Hydrocele (f; CRC); Indigestion (f1; RAI; 60P); Infection (f1; CRC; FNF; MPI; RAI; ROE; WO2; X16483385); Inflammation (f; HAD; PH2); Lumbago (f1; CRC; FNF; RAI); Malaria (f12; CRC; EGG; FNF; PHR; PH2; PNC; RAI; 60P); MDR (1; RAI); Metastasis (f; JLH); Myalgia (f; FEL; RAI); Mycosis (1; RAI); Myotonia (1; WO2); Neuralgia (f; CRC; FEL; HHB; MPI; PH2); Neurosis (f; CRC; PH2); Pain (f1; CRC; DAD; FEL; FNF; PH2; PNC; RAI; WO2); Palpitations (1; MPG); Paludism (f; 60P); Parasites (1; RAI); Pertussis (f; CRC; HHB; MPI); Pharyngosis (f; RAI; VAD); Piles (f; CRC); Pinworm (f; CRC; WO2); Pneumonia (f; CRC; FEL; MPI); Pyemia (f; MPI); Rashes (f; PH2); Respirosis (f; PH2); Rheumatism (f; FEL; MPI); Rhinosis (f; MPI); Sciatica (f1; CRC; FNF; PH2; RAI); Septicemia (f; CRC); Sores (f; JLH; PHR; PH2); Sore Throat (f; CRC; MPI); Splenomegaly (f; PHR; PH2); Splenosis (f; JLH; MPI; RAI); Stomatosis (f; CRC; RAI; VAD); Sunstroke (f; FEL); Tachycardia (1; MPG; VAD; 60P); Tonsilosis (1; MPI); Trachoma (f; FEL); Trypanosomiasis (1; FNF); Tumors (f1; CRC; JFM; JLH; PHR; PH2; RAI); Typhoid (f; CRC; FEL; RAI); Ulcers (f; JLH); Varicosity (f; CRC; RAI; VAR; WO2); Viruses (1; FNF); Wen (f; JLH); Worms (f1; FNF; JAD; RAI); Wounds (f1; PHR; PH2; VAD); Yeast (1; FNF).

**Dosages:**

FNFF = ! 1–3 g bark (KOM); 0.3–1 g powdered bark (PNC); 1 tsp bark boiled 5–10 min, 3×/day (MPG); 10 grains for hay fever, hemicrania, neuralgia, pertussis, and splenomegaly (MPI); 0.3–1 ml liquid extract (PNC); 0.3–1 ml cinchona extract (PNC); 2–4 ml cinchona tincture (PNC); max dose 50 mg (alkaloids???) (PNC).

- Andeans use for bleeding, childbirth, infections, inflammation, itch, metrorrhagia, and wounds.
- Brazilians take for anemia, anorexia, debility, dyspepsia, enterosis, fatigue, fever, gastrostrosis, and malaria (RAI).
- Peruvians take for fever and malaria (EGG).
- Venezuelans take for cancer and malaria (RAI).

**Downsides:**

Commission E reports counterindications for pregnancy and hypersensitivity; adverse effects: allergic reactions, rarely thrombocytopenia; and interactions: potentiation of cou-



marin derivatives (KOM). Other sources report counterindication for GI-ulcer, adverse effects for allergic skin reactions, fever, rarely thrombocytopenia. Overdosing or prolonged use may produce toxic effects (AEHD). Cinchonidine, cinchonine, hydroquinine, quinidine, and quinine all oxytocic in experimental animals at levels of 0.5–10 mg/kg (WO2). 8–20 g quinine may be fatal in humans (WO2). 8 g quinine can kill an adult in one dose (DAD). As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.

#### Extracts:

Cinchonidine, cinchonine, quinidine, and quinine are some of the antipyretic compounds in this growing medicine chest called quinine. From an amebicidal point of view, compounds modified from quinine and quinidine were not as potent as emetine and derivatives (I might mix my ipecac and quinine in Amazonia). Chloro-9-desoxy-quinine and quinidine were least active while 9-desoxy-dihydro derivatives showed fair activity. More compounds which showed slight *in vitro* activity were also active *in vivo*, exceptions being 9-desoxy-dihydro quinine and quinidine which were active *in vivo* (MPI).

### VELVETLEAF (*Cissampelos pareira* L.) ++

#### MENISPERMACEAE

#### Illustrations:

p 155 (NPM); p 85 (TRA); pl 42 (KAB)

#### Synonyms:

*Cissampelos hirsuta* Buchanan-Hamilton ex de Candolle; *C. nepalensis* Rhodes.

#### Notes:

Called “false pareira brava” to distinguish it from the true “pareira,” *Chondrodendron tomentosum*, for which it is sometimes substituted. Both contain dangerous neuromuscular blocking agents and have been used in arrow poisons, especially in Amazonian Colombia and Ecuador. The vine also yields a strong fiber. Fruits eaten by birds and white-faced monkeys (TBC).

#### Common Names:

Abuta (Eng.; RAI); Abútua (Brazil; Por.; KAB; MPB); Adivii Bankatige (Tel.; ADP); Akana-nadi (Ben.; Hindi; ADP; DEP; MPI); Akarmungpanang (Malaya; KAB; KAP); Akuadi (Hindi; KAB); Akuraso (Ashanti; KAB); Ambashtha (Sanskrit [1 of 39]; KAB); Ambashthai Patha (Sanskrit; DEP); Aportororkungma (Twi; KAB); Appata (Tam.; ADP); Areujtjantjuan (Java; KAB); Aristoloché Bilobée (Haiti; AVP); Barbasco (Peru; EGG); Bat (Pun.; KAB); Batangbatang (Cebu; KAB); Batato (Ca.; AVP); Batulpate (Majhi, Nepal; NPM); Batulpote (Nepal; NAD); Batulpoti (Nepal; KAB); Bejuco Azul (Cr.; AVP); Bejuco de Alcotan (Sal.; PCS); Bejuco de Cerca (Col.; IED); Bejuco de la Preñada (Ma.; JFM); Bejuco de Mona (Pr.; AVP; KAB; PCS); Bejuco de Ratón (Dor.; AHL; AVP); Bejuco de Sabana (Ma.; JFM); Bejuco de Salud (Ca.; AVP); Bejuco de Terciopelo (Ma.; JFM); Bejuco Ñame (Dor.; AHL); Bejuco Patacón (Col.; AVP); Bejuco Petillo (Cuba; AVP); Bejuco Prieto (Cuba; AVP); Bel-path (Sin.; DEP); Butua (HHB); Caá (HHB); Calancalamayan (Batangas; KAB); Chhelem Langdu (Tamang; NPM); Chillo Batulpate (Nepal; NPM); Cipó de Cabras (Brazil; MPB); Cipó de Gota (Brazil; MPB); Cotán (Guat.; PCS); Cotán Curarina (Ma.; JFM); Curarina (Mex.; AVP); Cuscusipa (Ilo.; KAB); Cutulutur (Mun.; KAB); Cuxba (Ma.; JFM); Cuxogui (Ma.; JFM); Dalli Laharo (Majhi; NPM); Deyamittia (Sin.; DEP); Dhakani (Majhi; NPM); Diyamitta (Hindi; KAP; NAD); Duknirbissi (Nwp.; KAB); Eklega (Ben.; ADP); Equere Panar (Ma.; JFM); Erva de Nossa Senhora (Brazil; MPB); Estrella de la Preñada (Ma.; JFM);

Estroloja (Ven.; AVP); Falsche Pareira (Ger.; HHB); False Pareira Brava (Eng.; AH2; HHB; KAB); Feuille Cocur (Haiti; AHL); Gasing Gasing (Malaya; IHB; RAI); Gëgasing (Malaya; IHB); Guaco (Ma.; JFM); Guayacan (Ma.; JFM); Gulangulammanan (Tag.; KAB); Gurubuti (Gurung; NPM); Hamafana (Sakalave; KAB); Harjor (Yunani; KAP); Harjori (Hindi; KAP; NAD); Hierba de Ratón (Ven.; PCS); Ice Vine (Eng.; NPM); Imchich Masha (Shipibo/Conibo; EGG); Iztacoanepili (Mex.; MAX); Iztako–Anep'li (Mex.; AVP); Jaluko (Nepal; NPM); Jibda Kassa (Hausa; Sudan; AVP; KAB); Joshin Astoro (Shipibo/Conibo; EGG); Kampapari (Vis.; KAB); Karandhis (Guj.; NAD); Kardhiyunbang (Porebunder; KAB); Katori (Pun.; Sin.; DEP; KAB; MPI; NAD); Kattuvalli (Mal.; ADP; SKJ); Kinikadjio (E. Afr.; KAB); Kòkili (Bribri; IED); Kule (Hindi; SKJ); Kuxsogui (Ma.; JFM); Kwartang Gugai (Tamang; NPM); Laghu Patha (Sanskrit; KAP; NAD); Lahra (Ben.; SKJ); Lëmpanang (Malaya; IHB); Lepeta (Pedi; KAB); Liane 15 Jours (Guad.; AVP); Liane à Coeur (Fr.; JFM); Liane à Glacer (Fr.; KAB); Liane Amere (Fr.; JFM); Liane Amère (Guad.; AVP); Liane à Serpents (Guad.; AVP); Liane Blanche (Réunion; KAB); Liane Corde (Guad.; AVP); Liane Gourde (Haiti; AHL); Liane Molle (Guad.; AVP); Liane Patte Cheval (Haiti; AVP); Lungri (Gurung; NPM); Ma-Nu-Pa-Tra (Tibet; NPM); Margosa (Ca.; AVP); Masquiunsabe (Ma.; JFM); M'cessie (Filabusi; KAB); Mëmpanang (Malaya; IHB); Midwife's Herb (Eng.; Ocn.; AH2); Milhombrea (Ma.; JFM); Moi Tron (Annam; KAB); Mokaekae (Chuana; Koba; Subia; KAB); Musya Belo (Raute; NPM); Nemuka (Ben.; DEP); Nimuka (Ben.; KAB); Nirbisi (Ben.; DEP; KAB); Okanobindhi (Oriya; KAB); Oreja de Ratón (Mex.; KAB; PCS); Oreja de Tigre (Ven.; AVP); Orelha de Onça (Brazil; MPB); Paatha (Sanskrit; MPI); Padavali (Kan.; KAB); Padavel (Mar.; KAB); Padvali (Kan.; NAD); Paha (Nepal; KAB); Pahadamoola (Hindi; NAD); Pahadvel (Bom.; KAB); Pahari (Garhwal; KAB); Paharval (Mar.; MPI; NAD); Paharvel (Mar.; ADP); Parayel (Goa; DEP); Parayet (Goa; KAB); Pareira (Japan; Pr.; AVP; KAP); Pareira Brava (Jam.; AVP); Paria Brava (Fr. Guiana; KAB); Parreira Brava (Brazil; MPB); Pata (Tel.; DEP; KAB; MPI; NAD); Pataca (Ma.; JFM); Patacón (Ca.; Col.; AVP; IED); Pat Chwal (Haiti; TRA); Paterutivu (Saora; KAB); Patha (Ayu.; Nepal; Sanskrit; Tibet; ADP; AH2; KAP; NPM); Patte Cheval (Haiti; AHL); Pattuvalli (Mal.; KAB); Pebá (HHB); Peteltun (Mex.; AVP); Phorgel Gil (Tibet; NPM); Picamano (Nic.; PCS); Pícamo (Nic.; AVP); Pomuskatie (Tam.; DEP); Pomootootai (Tam.; NAD); Punaittitta (Tam.; KAB); Ravinbury (Madagascar; KAB); Sansao (Pi.; KAB); Talsche Pareivawurzel (Ger.; KAP); Tamasás (Nic.; IED); Tamshaprip (Lepcha; KAB); Tanga (Tamang; NPM); Tejo Malla (San.; DEP; KAB); Tikri (Sin.; NAD); Tomatillo de Sabana (Cuba; PCS); Torola (Chepang; NPM); Tsutsucc (Ma.; JFM); Ts'uts'uk-ak (Mex.; AVP); Uva do Rio Apa (Ma.; JFM); Vaca Ñahui-Huasca (Peru; EGG); Vahemboatavo (Betsileo; KAB); Vahifotsy (Betsimisaraka; KAB); Vahivory (Hova; KAB); Vattatiruppi (Tam.; MPI); Velvetbush (Eng.; JFM); Velvetleaf (Eng.; Jam.; Scn.; ADP; AH2; KAP; NPM; USN); Venadera (Cr.; AVP); Venibel (Bom.; DEP); Venivel (Guj.; ADP; KAB); Videira Silvestre (Ma.; JFM); Voaravinaviavy (Antsianaka; KAB); Weniwela (Sin.; KAB); Xi Sheng Teng (Pin.; DAA).

### Activities:

Alexiteric (f; DEP; KAB); Analgesic (f1; DAV; EGG; GMJ; KAB; RAI; X17240096); Antiabortive (f; IED); Antiarthritic (1; X17240096); Anticancer (f; JFM); Anticonvulsant (1; RAI; TRA); Antidiarrheal (1; X15050042); Antidote (f; ADP; RAI); Antiecbolic (f; DAW); Antiedemic (1; X17097249); Antifertility (1; X17324540); Antihistaminic (1; TRA; X17097249); Antiinflammatory (1; DAV; EGG; RAI; X17097249); Antileukemic (1; WO3; X8403094); Antilithic (f; WO2); Antimalarial (1; TRA); Antioxidant (1; RAI); Antiplasmodial (1; TRA); Antiradicular (1; RAI); Antiseptic (f; NPM); Antispasmodic (1; HHB; WO3); Antitrypanosomic (1; X12943789); Antiulcer (1; RAI); Aphrodisiac (f; RAI); Astringent (f1; DEP; X15050042); Bactericide (1; HDN; TRA; WO2); Bitter (f; DEP); Bradycardiac (1; TRA); Cardiotonic (1; TRA); CNS-Depressant (1; TRA; WO2); Contraceptive (1; X17324540); Curare (1; KAP; TRA; WO2); Cytotoxic (1; MPB; WO3); Depurative (f; KAP); Diaphoretic (f; IED);

Diuretic (f; DAV; DAW; DEP; NPM; RAI); Emmenagogue (f; DAW; IED; KAB; WO2); Expectorant (f; DAV; DAW; EGG; IED; KAB; RAI); Febrifuge (f1; DAV; EGG; IED; KAB); Gram(+)-icide (1; WO2); Hemostat (f; IED; RAI); Hepatoprotective (f; RAI); Hypertensive (1; TRA); Hypotensive (1; TRA); Litholytic (f; DAW; DEP; IED; KAP); Mucolytic (f; RAI); Myorelaxant (1; KAP; MPI); Piscicide (f; DAV; IED; IHB); Poison (f; DAV); Purgative (f; DAW); Respirodepressant (f; DEP); Stimulant (f; DAW); Stomachic (f; DEP; KAB); Styptic (f; DAW); Tonic (f; DEP; NPM); Uterorelaxant (1; TRA); Vulnerary (f; DEP).

### Indications:

Abortion (f; RAI); Abscesses (f; IHB; WO2); Acne (f; DAW; KAB; RAI; SKJ; WO2); Allergies (1; TRA; X17097249); Amenorrhea (f; KAB; WO2); Anemia (f; RAI); Arthritis (1; X17240096); Asthma (f; DAW; DEP; IED; JFM); *Bacillus* (1; HDN); Bacteria (1; HDN; TRA; WO2); Bites (f; SKJ); Bleeding (f; DAW; IED; RAI); Boils (f; DAW; JFM; WO2); Bronchitis (f; DAW); Bruises (f; RAI); Burns (f; DAW; WO2); Calculus (f; ADP; DAW; KAB; MAX; WO2); Cancer (f1; JFM; WO3); Cancer, colon (1; RAI); *Candida* (1; HDN); Carbuncles (f; DAW; SKJ); Cardiopathy (f1; ADP; JFM; RAI; TRA; WO2); Catarrh (f; DEP); Childbirth (f; JFM; KAB; RAI); Chills (f; DAW); Cholera (f; DAW); Colds (f; ADP; DAW); Colic (f; ADP; DAW; JFM; NPM; RAI); Congestion (f; RAI); Conjunctivitis (f; RAI); Constipation (f; NPM; RAI); Consumption (f; DEP); Convulsions (f1; DAW; RAI; TRA); Coughs (f; DAW; KAB); Cramps (f1; HHB; RAI; WO3); Cystitis (f; DAW; DEP; KAB; MAX; WO2); Delirium (f; DAW; SKJ); Dermatitis (f; IED; KAP; NPM); Diabetes (f; DAW); Diarrhea (f1; DAW; DEP; KAB; X15050042); Diphtheria (f; ADP); Dislocation (f; NPM); Dog Bites (f; DAW); Dropsy (f; DAW; DEP; KAB; MAX); Dysentery (f; ADP; DAW; DEP; JFM); Dysmenorrhea (f1; MPB; RAI; WO3); Dyspepsia (f; ADP; AHL; DAW; DEP; KAB; NPM); Dysuria (f; DAW; KAB); Edema (1; X17097249); Enterosis (f; DEP; KAB); Epilepsy (f; DAW; SKJ); Erysipelas (f; AHL; DAW); *Escherichia* (1; TRA); Fever (f1; ADP; DAV; DAW; EGG; IED; KAB; NPM; RAI); Fibroids (f; RAI); Gallstones (f; AHL); Gastrosis (f; DEP; NPM; RAI; TRA); Gingivitis (f; NPM); Gonorrhoea (f; NPM); Gravel (f; DAW; KAB; SKJ); Headache (f; ADP); Hematuria (f; DAW; SKJ); Hemiparesis (f; KAB); Hemorrhage (f; DAW); Hemorrhoids (f; KAB; SKJ); Hepatosis (f; MPB); High Blood Pressure (f1; DAW; TRA); Impotence (f; RAI); Infection (f1; HDN; NPM; TRA; WO2); Inflammation (f1; DAV; EGG; KAP; RAI; X17097249); Itch (f; ADP; DAW; WO2); Jaundice (f; DAW; DEP; MAX); *Klebsiella* (1; RAI); Leprosy (f; SKJ); Leukemia (1; WO3; X8403094); Leukorrhoea (f; DAW; JFM; MAX); Low Blood Pressure (1; TRA); Malaria (f1; ADP; DAW; RAI; SKJ; TRA); Menorrhagia (f; DAW; RAI); Miscarriage (f; WO3); Mucositis (f; MPI; RAI); Myositis (f; RAI); Nephrosis (f; DAW; DEP; KAB; MAX; RAI; WO2); Nervousness (f; RAI); Oliguria (f; RAI); Ophthalmia (f; ADP; SKJ; WO2); Orchitis (f; AHL; DAW; RAI); Osteitis (f; NPM); Pain (f1; DAV; DEP; EGG; GMJ; KAB; NPM; RAI; WO2; X17240096); Palpitations (f; DAW; JFM); PMS (f; RAI); Prolapse (f; ADP; DEP); Puerperium (1; WO3); Rabies (f; DAW; SKJ); Rashes (f; IED); Respiritis (f; RAI); Rheumatism (f; DAW; MAX; RAI); *Salmonella* (1; RAI); Scabies (f; WO2); Sinusitis (f; DEP); Smallpox (f; ADP); Snake Bite (f; DAV; DAW; IHB; KAB; MAX; NPM); Sores (f; DEP; WO2); Spermatorrhea (f; ADP); Splenitis (f; JFM); *Staphylococcus* (1; HDN; TRA); Sterility (f; RAI); Stings (f; DEP; KAB); Stomachache (f; DEP; SKJ); Stones (f; DAW; DEP; IED; KAP; NAD; RAI); Stroke (f; SKJ); Swelling (f1; NPM; X17097249); Syphilis (f; KAP); Trypanosoma (1; X12943789); Tuberculosis (f; DEP); Typhoid (f; ADP); Ulcers (f1; DEP; NPM; RAI); Urethritis (f; KAB); Urogenitis (f; DAW; KAB; NAD); Uteritis (f; ADP; DEP; WO2); Vaginitis (f; RAI); VD (f; DAV; DAW; EGG; IED; KAP; NPM); Worms (f; KAB); Wounds (f; ADP; DAW; DEP; NPM); Yeast (1; HDN).

**Dosages:**

FNFF = ? Roots edible, used in making rice beer (WO2). 28–56 ml decoction (KAP); 2–8 ml liquid extract (KAP); 2–3 ml tincture 2–3×/day (RAI); 6 tsp plant juice 2×/day, given after childbirth to stop bleeding and counteract loss of blood (NPM); 3 tsp plant juice 3×/day for fever and indigestion (NPM); 4 tsp root juice 3×/day for burning urination a/o indigestion (NPM); 2 tsp root juice 3×/day to treat cough and colds (NPM); root juice dripped into wounds to kill germs and worms (NPM); 0.5–1.5 g powdered root (KAP); 1 cup wood decoction 2–3×/day (RAI); 1–2 g capsule/tablet 2–3×/day (RAI).

- Asian Indians suggest pounded root for heat stroke and malaria (SKJ).
- Assamese report temporary birth control with pareira in combination with black pepper, root of *Mimosa pudica* and *Hibiscus rosa-sinensis* (X12266264).
- Bhoja Tribals take leaf extract internally 15 days for spermatorrhea (ADP).
- Brazilians take root decoction for amenorrhea and to dispel colic around childbirth (JFM).
- Dominicans use for childbirth, erysipelas, gallstones, and fever (AHL).
- Guatemalans take decoction for fever, and as a wash for erysipelas (JFM).
- Guyanan Creoles steep bark, leaf, and stem in rum as aphrodisiac (JFM).
- Guyanan Palikur poultice leaves to pain (RAI).
- Jamaicans take the bitter diuretic tonic for dermatosis, gonorrhoea, and sores (JFM).
- Mexicans suggest 1–3 ounces (boil 1 pint water and 1.5 oz bark for 15 min, strain, fill back to 1 pint water) as diuretic and tonic (MAX).
- Mexicans use for diarrhea, dysentery, dysmenorrhea, muscular inflammation, rheumatism, and snake bite (RAI).
- Nicaraguans apply leaf and root decoction, orally and topically, for bites and stings of snakes, scorpions, and insects, and for fever, skin rashes, sores, and venereal diseases (IED).
- Pauri Garhwal natives paste the plant onto itch, leukorrhoea, and smallpox (ADP).
- Peruvian Amerinds use seed as diuretic expectorant and for fever, snake bite, and VD (RAI).
- Trinidad natives take leaf decoction for palpitations (JFM).
- Wayãpi use leaf and stem decoction for oral pain relief (RAI).
- Yucatanese take decoction as diuretic, for asthma, edema, jaundice, and rheumatism (JFM).

**Downsides:**

Sometimes deemed toxic to cattle (SOU). A poisonous plant in itself, it has served as an antidote to other poisons (HHB). As of July 2007, the FDA Poisonous Plant Database listed nine titles alluding to toxicity of this species.

**Extracts:**

Salts of the alkaloids have been used to relax muscles during operations. Leaf extract exhibited antifertility activity in mice, altering gonadotropin release and estradiol secretion, with oral LD50 = 7.3 g/kg mice (X17324540). 50% aqueous ethanolic root extract antinociceptive (100–400 mg/kg 1×/day/3 days mice) and antiarthritic (X17240096), also antiinflammatory (200–400 mg/kg rat) with no toxicity or mortality (up to 1,000 mg/kg p.o. rat), and did not cause gastric lesions (X17097249). The compound cissampeloflavone, from the aerial parts, active against *Trypanosoma cruzi* and *T. brucei rhodesiense* (X12943789). Cissampareine reportedly has activity against carcinoma of the nasopharynx. LD50 (aqueous decoction) = >5,000 mg/kg orl rat (TRA).

**PRINCESS VINE (*Cissus verticillata* (L.) Nicolson & C. E. Jarvis) +**

VITACEAE

**Illustrations:**

fig 168 (MPG)

**Common Names:**

Achite (Ma.; JFM); Ampato Huasca (Peru; Sp.; LOR; MDD); Anil Trepador (Brazil; MPB); Bastard Bryony (Ma.; JFM); Bejuco Castro (Col.; MPG); Bejuco Chirriador (Col.; MPG); Bejuco Comemano (Guat.; Hon.; MPG); Bejuco de Agua (Col.; AVP); Bejuco de Caro (Cuba; Dor.; Pr.; Ven.; MPG); Bejuco de Gallina (Ma.; JFM); Bejuco Flexible (Bol.; DLZ); Bejuco Iasu (Cr.; MPG); Bejuco Loco (Mex.; MPG); Bejuco Ubi (Cuba; MPG); Blisterbush (Ma.; JFM); Boeng Abie Ma (Ma.; JFM); Cabuja di Tranke (Ma.; JFM); Caro (Cuba; Dor.; AVP; MPG); Chirriador (Ma.; JFM); Cipo (Brazil; MPG); Cipo Puca (Brazil; MPB); Cipo Puci (Brazil; MPB); Coronilla (Bel.; BNA); Cortina (Brazil; AVP); Cortina de Oxala (Brazil; AVP); Cortina de Pobre (Brazil; MPB); Cortina Japones (Brazil; AVP); Godmort (Ma.; JFM); Herbe a Ulceres (Haiti; AVP); Hierba de Buey (Mex.; MPG); Iasu (Cr.; MPG); Isipore (Bol.; Chiriguano; DLZ); Kaboeja di Trankera (Ma.; JFM); Lambrali (Ma.; JFM); Liane a Eau (Fwi.; AVP); Liane a Minguet (Ma.; JFM); Liane des Chasseurs (Fwi.; AVP); Liane Molle (Guad.; Haiti; AVP); Liane Mortelle (Haiti; AVP); Mary Bush (Ma.; JFM); Molonqui (Mex.; MPG); Omheimingtouw (Ma.; JFM); Paja de Culebra (Peru; Sp.; LOR); Picamano (Ma.; JFM); Pinakoop (Ma.; JFM); Poison Wyth (Ma.; JFM); Prenada Segunda (Bel.; BNA); Princess Vine (Eng.; Scn.; AH2; USN); Puca (Brazil; MPB; MPG); Puca Ampato Huasca (Peru; SOU); Pudding Bush (Ma.; JFM); Pudding Vine (Ma.; JFM); Pudding Wis (Ma.; JFM); Rockrope (Ma.; IED; JFM); Ruipato-Huasca (Peru; SOU); Sanalotodo (Ma.; JFM); Sapo Huasca (Peru; Sp.; LOR; MDD); Scratch Wys (Ma.; JFM); Season Vine (Eng.; AVP); Tab Kanil (Mex.; AVP); Ta Kan (Bel.; BNA); Temecate (Mex.; AVP); Tinto dos Gentios (Brazil; AVP); Toad Vine (Eng.; DAV); Tripa de Vaca (Mex.; MPG); Tripa de Zopilote (Mex.; MPG); Tripas de Judas (Mex.; MPG); Tumba Vaqueros (Mex.; MPG); Uva Branca (Ma.; JFM); Uva Cimarrona (Ma.; JFM); Uva de Culebra (Peru; SOU); Uvilla (Bol.; Nic.; MPG); Uvilla Silvestre (Ma.; JFM); Vid Silvestre (Mex.; MPG); Wild Yam (Ma.; JFM); Yaws Bush (Ma.; JFM); Yedra (Peru; DAV); Zapo Huasca (Peru; SOU).

**Activities:**

Analgesic (f; DAW); Anticonvulsant (1; MPG); Antiinflammatory (f; DAW); Antiseptic (1; MPG); Bactericide (1; MPG); Cicatrizant (f; DAW); CNS-Depressant (1; JFM; MPG); Diuretic

(f; DAW); Emmenagogue (f; JFM); Febrifuge (f; DAW); Sedative (1; MPG); Stomachic (f; MPG); Tonic (f; JFM); Uterotonic (1; MPG); Vesicant (f; DAW).

**Indications:**

Abscesses (f; MPG); Anemia (f; DAV; MPB); Arthrosis (f; DAW); Asthma (f; MPG); *Bacillus* (1; MPG); Backache (f; JFM); Bacteria (1; MPG); Boils (f; DAW); Bruises (f; DAW); Carbuncles (f; DAW); Cardiopathy (f; MPB); Catarrh (f; MPG); Colds (f; DAW; EB30:131); Colitis (f; DAW); Convulsions (1; MPB); Coughs (f; EB30:131); Cramps (1; MPG); Dermatitis (f; JFM); Diarrhea (f; DAW); Dropsy (f; MPB); Epilepsy (f1; DAW; MPG); Fever (f; DAW); Flu (f; EB30:131; MPG); Fracture (f; DLZ; MPG); Furuncles (f; MPG); Gangrene (f; JFM); Headache (f; DAW); Hemorrhoids (f; DAV; SOU); Hepatosis (f; MPG); High Blood Pressure (f; DAV; MPB); Hoarseness (f; DAW); Hydrocele (f; JFM); Infection (1; MPG); Inflammation (f; DAW; MPG); Insomnia (1; MPG); Itch (f; JFM); Nephrosis (f; MPG); Neuralgia (f; DLZ); Pain (f; DAW; JFM); Respirosis (f; MPG); Rheumatism (f; DAW); Sores (f; DAW); Sore Throat (f; DAW); Sprains (f; DAV); Sunburn (f; EB30:131); Tachycardia (f; MPB); Tumors (f; DAW); Ulcers (f; DAW); Uterosis (f; MPG); Wounds (f; DAW).

**Dosages:**

FNFF = ? Jamaicans drink the decoction with coconut or condensed milk as a beverage (JFM). Bark tincture applied topically, decoction drunk for rheumatism (JFM). Stems bound around painful joints and fractures (JFM).

- Amazonians use the sap for epilepsy (MPB).
- Cubans use leaf, stem, a/o root decoction, preferably fresh, for asthma, catarrh, and cough (MPG).
- Dominicans apply heated leaves to furuncles and gangliar afflictions (MPG).
- In Trinidad and Tobago it is considered “cooling,” used for high cholesterol and urinary problems (X17040567).

**Downsides:**

Sap vesicant, contains calcium oxalate. As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**WACA (*Clibadium surinamense* L.) +**

**ASTERACEAE**



**Synonyms:**

*Baillieria aspera* Aubl.; *Clibadium asperum* (Aubl.) DC.; fide (USN).

**Notes:**

“Waca,” “huava,” “guaca” are all rather similar names. I’d have used “barbasco,” but I already used that for another fish poison, *Dioscorea*.

**Common Names:**

Barbasco (Col.; Sp.; DAV; SAR); Barbasco Amarillo (Ma.; JFM); Conabi (Brazil; Sa.; MPB; RAR); Conambi (Brazil; MPB); Conami (Sa.; RAR); Counami Batard (Creole; Sur.; GMJ); Cunambi (Brazil; X16616455); Guaco (Col.; SAR); Huaco (Peru; Sp.; LOR); Koo Mapre (Miranya; SAR); Senyamba (Kofan; SAR); Topa Blanc (Creole; Sur.; GMJ); Toteeo (Secoya; SAR); Toteo (Secoya; SAR); Tupa Kamwi (Palikur; GMJ); Waca (Peru; Sp.; LOR; MDD); Wy Ee Nee Ma (Barasana; SAR).

**Activities:**

Bitter (f; MPB); CNS-Stimulant (1; X16616455); Convulsant (1; X16616455); Neurotoxic (1; X16616455); Parasiticide (f; JFM); Piscicide (1; IED); Tonic (f; MPB); Toxic (1; X16616455).

**Indications:**

Anemia (f; JFM; MPB); Chlorosis (f; MPB); Colds (f; JFM); Colic (f; JFM); Dermatitis (f; JFM; MPB); Diarrhea (f; JFM); Erysipelas (f; JFM; MPB); Freckles (f; JFM); Itch (f; JFM); Parasites (f; JFM); Wounds (f; JFM).

**Dosages:**

FNFF = !

- Brazilians bathe erysipelas and wounds with flower and leaf decoction (JFM).

**Downsides:**

Neurotoxic. Ethanol leaf extract induced seizures followed by death within 30 min in mice (X16616455). As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**Extracts:**

Hexane extract of the stems and leaves CNS-stimulant and convulsant (22.5–360 mg/kg, p.o. mice); cunaniol acetate identified as the convulsant compound (X16616455).

## TREE SPINACH (*Cnidoscolus aconitifolius* (Mill.) I. M. Johnst.) ++

### EUPHORBIACEAE

**Synonyms:**

*Jatropha aconitifolia* Mill. (basonym); fide (USN).

**Common Names:**

Cabbage-Star (Eng.; USN); Tree-Spinach (Eng.; USN); Manioc Bâtard (Fr.; USN); Chaya (Sp.; USN); Copapayo (Sp.; USN).

**Activities:**

Antidiabetic (1; X17531147); Antioxidant (1; X14709023); Insulinogenic (1; X17531147).

**Indications:**

Diabetes (1; X17531147).

**Dosages:**

FNFF = !! Other species, like this one, cooked and eaten like spinach (FAC; JAD)

**Downsides:**

Cooking is necessary to inactivate the toxic hydrocyanic glycosides present in chaya leaves (X10540979).

**Extracts:**

Leaf extract insulinogenic, decreasing glucose levels by 25.6% in moderately diabetic mice, and by 43.7% in severely diabetic mice (X17531147). Leaf extracts, containing kaempferol-3-O-glycosides and quercetin-3-O-glycosides, had higher antioxidant activity in raw rather than the cooked extracts (X14709023). Beta-carotene 27–52 mg/100 g dry plant; lutein 140–193 mg/100 g of dry plant (X15826042).

**SEA GRAPE (*Coccoloba uvifera* (L.) L.) ++****POLYGONACEAE****Illustrations:**

fig 96 (IED); p 398 (TTS); p 83 (L&W)

**Synonyms:**

*Guaiabara uvifera* House; *Polygonum uvifera* L.

**Notes:**

In Haitian vodou, this characteristically coastal shrub or tree is the preferred tree habitation of the “Iwa Agwe” (VOD).

**Common Names:**

Agraz (Col.; Ma.; AUS; JFM); American Kino (Eng.; AUS); Anyalque (Peru; AVP); Arahueque (Ven.; AUS); Arahueque (Ma.; JFM); Arco de Pipa (Por.; AVP); Baga da Praia (Por.; AVP); Barána Baíbai (Garifuna; IED); Baya de Praga (Ma.; AUS; JFM); Bay Grape (Bwi.; Eng.; JFM); Bihcô:Bî (Mikasuka; AUS); Boga de Praia (Ma.; AUS; JFM); Bois Baguette (Fwi.; AVP); Buisbasa (Wi.; AUS); Calentura (Col.; AVP); Camere (Ma.; JFM); Carro Caliente (Cr.; AVP); Coccoloba (Peru; AVP); Cocoloba (Brazil; Por.; USN); Corralero (Ma.; JFM); Cumare Blanco (Ma.; AUS; JFM); Dreifi (Dutch; AVP); Dreifi de la Mar (Sur.; AUS); Dreifi die Lamon (Dwi.; AUS; JFM); Druif (Dwi.; Sur.; AUS; AVP; JFM); Druifi (Dwi.; AUS; JFM); Duraznillo (Arg.; AVP); False Rhatany (Eng.; AUS); Grape (Bel.; Sur.; Vi.; AUS; AVP; BNA; JFM); Guajabara (Por.; AVP); Guaya-Conejo (Cuba; AUS); Guaiabara (Dom.; Por.; AUS; AVP); Guibasa (Ma.; JFM); Hai P'u Tao (China; TAN); Hamudo Noki (Japan; TAN); Hopwood (Bwi.; Eng.; AUS; JFM); Horsewood (Eng.; JFM); Hueso (Pan.; AVP); Hueson de Negro (Col.; AVP); Irayol de Montanya (Guat.; AVP); Jamaica Kino (Eng.; AUS); Jamaican Kina (Eng.; USN); Juan Garrote



(Col.; Ma.; AUS; JFM); Ki:Horáko (Creek; AUS); Kiichhe (Maya; Mex.; AUS; AVP); Lappenbeere (Ger.; AVP); Manggel die Sabbana (Curacao; AUS); Mangle de Falda (Ma.; JFM); Mangrove Grape Tree (Eng.; AUS); Manzana Extranjero (Mex.; Sp.; AUS); Manzano (Mex.; AUS; AVP); Matora (Arawak; Sur.; AUS); Meertraubenbaum (Ger.; USN); Miconga (Ma.; JFM); Micongo (Col.; AUS; IED); Murta (Col.; Ma.; AUS; JFM); Niichhe (Bel.; Mex.; AVP; BNA); Nula (Cuna; AUS; IED); Paletuvier Rouge (Fr.; AVP); Palétuvyé Wouj (Creole; Haiti; VOD); Palo Mulato (Pan.; AVP; JFM); Papalón (Sal.; AVP); Papaton (Ca.; AVP); Papaturre (Cr.; Hon.; Sal.; AVP); Papaturre Extranjero (Nic.; AVP); Pigeonwood (Bwi.; Ma.; JFM); Platterleaf (Eng.; USN); Purgua (Peru; AVP); Quiabara (Ai.; AUS); Quinino de Jamaica (Sp.; AHL); Quino (Col.; Ma.; AUS; JFM); Raisin de Fer (Fr.; Haiti; AHL); Raisinier a Grappes (Fwi.; AVP); Raisinier Bord de Mer (Fr.; Fwi.; AUS; USN); Raisinier d'Amérique (Fr.; AVP); Raisin la Mer (Fr.; Haiti; AHL; AUS); Rézen d'Mè (Creole; Haiti; VOD); R'zen Lann MP (Creole; Haiti; VOD); Schusterdruif (Ma.; JFM); Sea Grape (Eng.; Scn.; AH2; USN; VOD); Seaside Grape (Fwi.; AUS; AVP; VOD); Seetraube (Ger.; AVP); Shoregrape (Eng.; TAN); Shore Sea-Grape (Eng.; USN); Squinom Raisin Bord de Mer (Fwi.; AUS); Uva (Dor.; Mex.; AUS); Uva Caleta (Cuba; Dor.; Sp.; AHL; AUS; AVP; RyM; USN); Uva-da-Praia (Por.; USN); Uva de Galeta (Ma.; JFM); Uva de la Costa (Dor.; AUS); Uva de Mar (Dor.; Mex.; Pr.; AHL; AUS); Uva de Playa (Hon.; Mex.; Pan.; Peru; Pr.; Sp.; Ven.; AUS; AVP; EGG; USN); Uva do Mar (Brazil; Por.; USN); Uva Silvestre (Por.; AVP); Uverna (Sp.; IED); Uvero (Col.; Cuba; Mex.; Pan.; Pr.; Sp.; Ven.; AUS; AVP; EGG; USN); Uvero de Monte (Trin.; AVP); Uvero de Playa (Cr.; Dom.; Mex.; Ven.; AUS; AVP); Uvero Macho (Col.; Dor.; Ven.; AUS; AVP; JFM); Uvilla (Dor.; AUS; AVP); Virao Blanco (Arg.; AVP); West Indian Kino (Eng.; AUS); Wezen (Trin.; AUS); Wild Grape (Bwi.; Eng.; Hon.; AUS; AVP); Zeedreifi (Dutch; Sur.; AUS; AVP; JFM); Zeedruif (Sur.; AVP); Zusterdruif (Sur.; AUS; JFM).

### Activities:

Antidiarrheal (f; DAW); Antidysenteric (f; DAW); Antitumor (1; FNF); Antivenereal (f; DAW); Astringent (f; DAW; VOD); Febrifuge (f; AUS; DAW); Hemagenic (f; JFM); Tonic (f; DAW).

### Indications:

Anemia (f; JFM); Asthma (f; JFM); Bleeding (f; JFM; VOD); Bleorrhagia (f; VOD); Cancer (1; FNF); Childbirth (f; JFM); Dermatitis (f; IED; VOD); Diarrhea (f; AHL; DAW; VOD); Dysentery (f; AHL; AUS; DAW; VOD); Dyspepsia (f; IED); Enuresis (f; JFM); Eruption (f; JFM); Fever (f; AUS; DAW; VOD); Hemorrhoids (f; JFM); Hoarseness (f; JFM); Incontinence (f; JFM); Itch (f; VOD); Rashes (f; JFM); Sores (f; IED); VD (f; DAW; JFM); Wounds (f; JFM).

### Dosages:

FNFF = !! Fruits edible raw or in jams, jellies, or in wine (AUS; FAC). Austin even recounts seeing a Florida mockingbird drunk from eating too many fermented berries (AUS).

- Caicos Islanders apply the root decoction to hemorrhoids and rashes (JFM).
- Caicos Islanders take the wine for anemia, the root decoction for puerperium (JFM).
- Cubans use the leaf decoction for asthma and hoarseness (JFM).
- Guyanans take fresh fruit juice for diarrhea and dysentery (JFM).
- Haitians bathe in a bark bath for itching dermatoses (VOD).
- Haitians take the bark decoction for diarrhea and fever (VOD).
- Haitians take the fruit, root, and stem decoction for blennorrhagia, diarrhea, dysentery, and hemorrhage (VOD).

**Downsides:**

If the anthraquinones in *Aloe*, *Rhamnus*, *Rheum*, *Senna*, etc. prove to have a downside so will the anthraquinones here. As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**Extracts:**

If the anthraquinones in *Aloe*, *Rhamnus*, *Rheum*, *Senna*, etc. prove to have positive medicinal virtues, so will the anthraquinones here.

## COMASUCHE (*Cochlospermum vitifolium* (Willd.) Spreng.) +

### BIXACEAE

**Synonyms:**

*Bombax vitifolium* Willd. (basionym); *Cochlospermum hibiscoides* Kunth; *Maximiliana hibiscoides* (Kunth) Kuntze; *M. vitifolia* (Willd.) Krug & Urb.; fide (USN).

**Common Names:**

Comasuche (Sp.; USN); Huevos del Burro (Sp.; USN); Pumpumjuche (Sp.; USN); Pumpunjuche (Sp.; USN); Rosa Amarilla (Sp.; USN); Tecomasúchil (Sp.; USN); Tecomasuche (Sp.; USN).

**Activities:**

Angiotensin-Inhibitor (1; X11292241); Hepatoprotective (f1; X16978815); Hypoglycemic (f1; X16978815); Immunomodulant (1; X15500263); Vasorelaxant (f1; X16978815).

**Indications:**

Diabetes (f1; X16978815); Hepatitis (f1; X16978815); High Blood Pressure (f1; X16978815); Metabolic Syndrome (1; X16978815).

**Dosages:**

FNFF = !

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

Hexane bark extract showed a significant endothelium-independent relaxation on rat aorta rings at 120 mg/kg (IC<sub>50</sub> = 14.42±5.90 µg/ml) and also showed significant decrease of blood glucose levels; methanolic bark extract produced an endothelium-dependent relaxation at 100 mg/kg (IC<sub>50</sub> = 21.94±6.87 µg/ml) (X16978815). Stem bark extract immunomodulatory *in vitro* (X15500263). Methanol:dicloromethane bark extract inhibited angiotensin II AT1 receptor more than 50% (X11292241).

## ERECT DAYFLOWER (*Commelina erecta* L.) +

### COMMELINACEAE

**Illustrations:**

p 232 (AUS)

**Synonyms:**

*Commelina elegans* Kunth; *Commelina virginica* auct.; fide (BNA; USN).

**Common Names:**

Bluebird (Nic.; AUS); Botoncillo (Dor.; AHL); Burabaya (Nig.; UPW); Bura Bura Ba (Mali; Sen.; UPW); Canutillo (Sp.; AUS); Consuelda (Dor.; AHL); Day Flower (Fla.; HOC); Dew Flower (Eng.; AUS); Erect Dayflower (Eng.; USN); Espuelitas (Mex.; AUS); Hierba de Pollo (Tex.; AUS); Lancetilla Blanca (Peru; DAV); Leandro Gomez (Uru.; MPG); Little Bamboo (Bel.; AUS); Maïs Marron (Haiti; AHL); Mataliste (Mex.; Sal.; AUS); Nyame Bewu Na Mawu (Ghana; UPW); Oki Ahissi (Koasati; AUS); Pah Tsá (Maya; AUS); Santa Lucia (Uru.; MPG); Spiderwort (Eng.; HOC); Suelda Consuelda (Dor.; AHL); Tamakusi (Car.; Sur.; AUS); Utek' (Huastec; Mex.; AUS); White Mouth Dayflower (Eng.; AUS); X-Habul-Ha (Maya; AUS); Ya'ax Ha Xiu (Maya; Mex.; AUS); Yerba de Santa Lucia (Uru.; MPG); Z'Herbe Maïs Marron (Haiti; AHL). (Nscn).

**Activities:**

Antispasmodic (f; AHL); Diuretic (f; AHL); Emollient (f; HOC); Febrifuge (f; AHL); Nervine (f; AHL).

**Indications:**

Bleeding (f; MPG); Conjunctivitis (f; MPG); Cramps (f; AHL); Dermatitis (f; HOC; MPG); Erythema (f; MPG); Fever (f; AHL); Hepatitis (f; MPG); Herpes (f; MPG); Infertility (f; MPG); Itch (f; HOC; MPG); Leucorrhea (f; MPG); Nervousness (f; AHL); Oliguria (f; AHL); Ophthalmia (f; MPG); Rashes (f; MPG); Sterility (f; EB31:304).

**Dosages:**

FNFF = ! I tend to eat any species but find that Burkill refers to it being fed to camels, cattle, horses, and poultry in Western Africa (UPW).

- Belizeans, Bolivians, a/o Mexicans use the fresh sap, or water caught in flowers, to clarify the vision (AUS; MPG).
- Ecuadorians take the aqueous root extract as contraceptive (MPG).
- Haitians view as antispasmodic, diuretic, febrifuge, and nervine (MPG).
- Paraguayan women take the aqueous extract to promote fertility (MPG).
- Seminoles use sap to soothe irritations and itch (AUS; HOC).
- Uruguayans use leaf decoction for leucorrhea (MPG).
- Uruguayans use the mucilaginous flowers in decoction for bleeding, conjunctivitis, dermatitis, erythema, hepatitis, herpes, rashes, and itch (MPG).
- Yorubans invoke the plant in incantation to cause itch in the enemy (UPW).

**FLAX-LEAF FLEABANE (*Conyza bonariensis* (L.) Cronquist) +  
ASTERACEAE**

**Illustrations:**

p 108 (MPG)

**Synonyms:**

*Conyza albidas*; *C. ambigua*; *C. bonariensis*; *C. floribunda*; *C. linifolia*; *Erigeron bonariensis* L. (basonym); *E. crispus* Pourr.; fide (EGG; USN).

**Notes:**

In Peru, from Amazonian to ca. 4,000 m.

**Common Names:**

Carnicera (Uru.; MPG); Cola de Zorro (Peru; EGG); Flax-Leaf Fleabane (Aust.; Eng.; USN); Tabaquilla (Pan.; TBC); Wavy-Leaf Fleabane (Eng.; Nz.; USN); Yerba Carnicera (Uru.; MPG). (Nscn).

**Activities:**

Allergenic (1; X743885); Anticholinergic (1; MPG); Antiviral (1; MPG); Cardiotoxic (1; MPG); CNS-Depressant (1; MPG); Decongestant (f; MPG); Diuretic (f1; MPG); Fungicide (1; MPG); Gamma-Interferon-Inhibitor (1; X12967039); Hepatoprotective (f; MPG); Hypouricemic (f; MPG); IL-4-Inhibitor (1; X12967039); Insecticide (f; MPG); Natriuretic (1; MPG); Positive Inotropic (1; MPG); Xanthine-Oxidase-Inhibitor (1; X11576616).

**Indications:**

Arthrosis (f; MPG); Cardiopathy (1; MPG); Congestion (f; MPG); Diarrhea (f; MPG); Dysentery (f; MPG); Dysuria (f; MPG); Fungus (1; MPG); Gonorrhoea (f; MPG); Gout (f; MPG); Hepatosis (f; MPG); Infection (1; MPG); Mycosis (1; MPG); Oliguria (f; MPG); Rheumatism (f; MPG); VD (f; MPG); Viruses (1; MPG).

**Dosages:**

FNFF = ?

- Argentinians use aqueous extract as anthelmintic, antirheumatic, astringent, digestive, diuretic, febrifuge, and hepatoprotective, using for diarrhea, dysuria, hepatic congestion, and VD (MPG).
- Peruvians use medicinally (EGG).
- Sotho take leaf decoction for ringworm and sore throat (UPW).
- Uruguayans view tea as diuretic, hepatoprotective, and hypouricemic, using for dysentery, gonorrhoea, gout, and rheumatism (MPG).

**Downsides:**

Perhaps toxic to cattle (MPG) but browsed by goats (UPW). As of July 2007, the FDA Poisonous Plant Database listed five titles alluding to toxicity of this species.

**Extracts:**

Hydroalcohol extract antiviral at 50 µg/ml (MPG). Syringic acid and takakin 8-O-glucuronide slightly inhibit xanthine oxidase (IC<sub>50</sub> = 500+/-41 µM and 170+/-12 µM, respectively) (X11576616).

**CANADA FLEABANE (*Conyza canadensis* (L.) Cronquist) +  
ASTERACEAE**

**Illustrations:**

fig 197 (AH366)

**Synonyms:**

*Erigeron canadensis* L. (basionym); *E. paniculatus* Lam.; *E. pusillus* Nutt.; *E. strictus* DC.; *Leptilon canadense* Britt.; *L. pusillum* Britt.; *Senecio liliatus* Walt.; fide (BUR; JFM; USN).

**Notes:**

This species can accumulate high concentration of Cd, and tolerate high Cd and Cd-Pb-Cu-Zn pollution. (X15559831). Grazers might wish to avoid it in polluted areas.

**Common Names:**

Achicoria Cimarrona (Cuba; JTR); Achicoria Silvestre (Cuba; JTR); Ajila (Cherokee; AUS); Anisillo (Cuba; JTR); Atackro:Lasti (Creek; AUS); Atackto:Lasti (Creek; AUS); Atsil Sun'ti (Cherokee; AUS); Barilla (Dor.; AHL); Bittersweet (Eng.; BUR); Bitter Weed (Eng.; BUR); Blood Staunch (Eng.; BUR); Butter Weed (Eng.; BUR; USN); Button Weed (Eng.; BUR); Canada Erigeron (Eng.; BUR); Canada Fleabane (Eng.; Scn.; AH2); Canadees Fijnstraalkraud (Dutch; EFS); Canadian Butterweed (Eng.; EFS); Canadian Coltstail (Eng.; EFS); Canadian Fleabane (Eng.; CR2; USN); Canadian Horseweed (Eng.; CR2; USN); Canhlo'Gan Was'temna Iye'cece (Lakota; AUS); Cauda de Raposa (Brazil; AVP); Cocash (Na.; JLH); Colt's Tail (Eng.; BUR); Conize Lobée (Fr.; VOD); Conyze du Canada (Fr.; AVP); Delis (Creole; Haiti; VOD); Erigeron (Fr.; EFS); Erigeron du Canada (Guad.; AVP); Fausse Camomille (Fr.; AVP); Fireweed (Eng.; BUR); Fleabane (Eng.; BUR; CR2); Foxtail (Dwi.; AUS); Franzosenkraut (Ger.; EFS); Gababi'kwuna'tig (Ojibwa; AUS); Ha'mo U'teawe (Zuni; AUS); Herbe des Francais (Fr.; AVP); Hierba de Burro (Mex.; AUS); Himewmukashi Yomogi (Japan; FAC); Hogweed (Eng.; BUR; USN); Horsetail (Usa.; AUS); Horseweed (Eng.; BUR; CR2; USN); Kamomi Mawon (Creole; Haiti; VOD); Kanadisches Berufkraut (Ger.; EFS; USN); Kanadisches Dürrwurz (Ger.; EFS); Kanadisches Flohkraut (Ger.; EFS); Kanaryaotu (Tur.; EFS); Mare's Tail (Eng.; BUR); No'sowini (Meskwaki; AUS); Orozuz (Pr.; AVP; JTR); Pascueta (Pr.; AVP); Pascueta (Pr.; JTR); Pazitillo (Nahuatl; AUS); Pinillo (Dor.; AHL); Pinito (Dor.; AHL); Prideweed (Eng.; AUS; BUR; EFS); Rake (Hocak; WIN); Saepola (It.; EFS); Scabious (Eng.; BUR); Squawweed (Eng.; EFS; JLH); Tabak a Djab (Creole; Haiti; VOD); Tackro:Cî (Mikasuk; AUS); Ts'iitsil Xiu (Mex.; MAX); Vergerette du Canada (Fr.; AVP); Vtakru Luste (Muskogee; AUS); Zancaraña (Cuba; JTR); Zèb a Pik (Creole; Haiti; VOD).

**Activities:**

Anthelmintic (f; PHR); Antiaggregant (1; X16973495); Anticonvulsant (f; DEM); Antiedemic (f; PH2); Antiinflammatory (f1; PHR; VOD; X3725873); Antioxidant (1; X16973495); Astringent (f; BUR; FAD); Diuretic (f; BUR; FAD; JFM); Hemostat (f; BUR; PHR); Hypotensive (1; PNC); Sternutatory (f; DEM; JFM); Sudorific (f; DEM); Tonic (f; BUR; JFM; PNC).

**Indications:**

Acne (f; DEM); Arthrosis (f; DEM); Asthma (f; DEM); Backache (f; DEM); Bleeding (f; BUR; JFM; PHR; PH2); Bronchosis (f; FAD; JFM; MAX; PH2); Cancer (f; JLH; PH2); Childbirth (f; DEM); Cholecystosis (f; FAD; PH2); Colds (f; AUS; DEM); Congestion (f; DEM); Convulsions (f; DEM); Coughs (f; AUS; DEM; FAD); Cramps (f; DEM); Cystosis (f; FAD; PH2); Dermatitis (f; DEM); Diabetes (f; BUR; MAX); Diarrhea (f; DEM; FAD; JFM); Dropsy (f; PH2); Dysentery (f; MAX; PHR); Dysmenorrhea (f; PH2); Dysuria (f; BUR; FAD); Eczema (f; FAD); Edema (f1; JFM; PHR; PH2; VOD; X3725873); Enterosis (f; FAD); Epistaxis (f; HHB); Fever (f; DEM; VOD); Gastrosis (f; FAD; PH2); Gonorrhea (f; JFM); Gout (f; PH2); Granuloma (f; PH2); Gravel (f; BUR; FAD); Headache (f; BUR; DEM); Head Colds (f; DEM); Hematochezia (f; BUR); Hemorrhoids (f; FAD; PH2); Hepatosis (f; PH2); High Blood Pressure (1; PNC); Hysteria (f; DEM); Inflammation (f1; PHR; VOD; X3725873); Leukorrhea (f; AUS; DEM); Liver Spots (f; DEM); Menorrhagia (f; PH2); Nephrosis (f; FAD); Nervousness (f; VOD); Pain (f; DEM; VOD); Pulmonosis (f; BUR); Rheumatism (f; PH2); Rhinosis (f; DEM; JFM); Ringworm (f; FAD); Snake Bite (f; DEM); Sore Throat (f; DEM; PHR; PH2); Sprains (f; DEM); Stomachache (f; DEM); Sunburn (f; DEM); Tumors (f; FAD; JLH); Uterorrhagia (f; BUR; MAX; PHR); Uterosis (f; PH2); UTIs (f; PHR; PH2); VD (f; DEM); Worms (f; PHR); Wounds (f; BUR; DEM).

**Dosages:**

FNFF = ! Japanese eat the young leaves and seedlings boiled, cooked with rice, or dried for future preparation. EO used in candy, soft drinks, and spice mixes (FAC). Tops consumed as

food by Miwok Indians (DEM). 3 cups/day or 2 tsp (PH2); 4–8 ml liquid extract; 0.01–0.25 ml EO (PNC).

- Argentinians take decoction (5 g herb in 300 g water) as diuretic in gonorrhea (JFM).
- Cahuila use leaf infusion for diarrhea (DEM).
- Chippewa use leaf/root decoction for female weakness and stomachache (DEM).
- Cree use plant for diarrhea (DEM).
- Cubans give shoot tea (50 g fresh herb/100 g water) for diarrhea, edema, and hemorrhage (JFM).
- Hawaiians apply expressed juice to backache, sore joints, and sprains (DEM).
- Hopi poultice or rub plant on temples for headache (DEM).
- Houma Indians take hot root infusion for leukorrhea (AUS; DEM).
- Iroquois infuse whole plant (with roots of another) for childhood convulsions and fever (DEM).
- Mesquaki use herb as a steaming agent in sweat baths (DEM).
- Navajo use plant lotion for pimples or snake bite, poulticing the hot plant on babes with “prenatal infection” (DEM).
- New Mexicans stuff the sternutatory flowers up their nose for rhinitis (JFM).
- North Americans apply decoction or tincture to hard tumors (JLH).
- Seminoles take plant for colds, congestion, coughs, sore throat, and stuffy nose (AUS; DEM).
- Western Keres rub the crushed plant onto sunburn (DEM).
- Yucatanese take astringent decoction as diuretic tonic, also for bronchial afflictions, diabetes, dysentery, and uterine hemorrhage (JFM).

**Downsides:**

Class 1 (AHP). None recorded (PHR); “Health risks or side effects following the proper administration of designated therapeutic dosages are not recorded” (PH2). May cause dermatosis in humans; irritates nostrils and throats of grazing animals (FAD; JFM). May cause mild hay fever, at least in the U.S. (EFS). As of July 2007, the FDA Poisonous Plant Database listed 17 titles alluding to toxicity of this species.

**Extracts:**

The polysaccharide extract antiaggregant and antioxidant (X16973495). Extract antiinflammatory in carrageenin and formalin oedema (rats), with highest activity in petroleum ether fraction of eight sesquiterpenic hydrocarbons (alpha-curcumene, beta-himachalene, beta-santalene, cuparene, gamma-cadinene and three unidentified) (X3725873). Limonene allelochemic, antiacetylcholinesterase, anticancer, antifeedant, antifu, antilithic, antimutagenic, antiseptic, antitumor (breast, pancreas & prostate), antiviral, bactericide, cancer-preventive, candidistat, enterocontractant, expectorant, fungistat, insect-repellent, insecticide, nematocide, sedative, spasmolytic, and viricide (LD50 = 4,600 (orl rat)); myrcene reportedly allergenic, analgesic, antimutagenic, antinociceptive, antioxidant, bactericide, fungicide, insect repellent, and spasmolytic (FNF). Flavonoids apigenin, isohamnetin, luteolin quercetin, and rhamnetin also have mutagenic properties (X2179716).

**DIESEL TREE (*Copaifera langsdorffii* Desf.) +**

**CAESALPINIACEAE**

**Common Names:**

Copahu (Fr.; USN); Copaiba (Eng.; USN); Copaiva (Ger.; USN); Diesel Tree (Eng.; JAD).

**Activities:**

Anticancer, breast (1; X12165328); Anticancer, colon (1; X12165328); Anticolitic (1; X14567068; X15182904); Antiinflammatory (1; X14567068); Antiseptic (1; JAD; PH2); Antitumor (1; X12165328); Bactericide (1; PH2); Calcium-Blocker (1; X12722132); Carmi-native (f; JAD); Cytotoxic (1; X12165328); Diuretic (f; JAD); Embryotoxic (1; X12165328); Emetic (f; JAD); Expectorant (f; JAD); Gastroprotective (1; X9720615); Hydragogue (f; JAD); Larvicide (1; X16253435); Laxative (f; JAD); Stimulant (f; JAD); Trypsin-Inhibitor (1; X11330343; X11526330; X15134830); Urinary Antiseptic (1; PH2); Uterorelaxant (1; X12722132).

**Indications:**

Bacteria (1; PH2); Bronchosis (f; JAD); Cancer (1; X12165328); Cancer, breast (1; X12165328); Cancer, colon (1; X12165328); Catarrh (f; JAD); Chilblains (f; JAD); Colitis (1; X14567068; X15182904); Constipation (f; JAD); Cystosis (f; JAD; MAD); Dermatitis (f; DAW); Diarrhea (f; JAD); Dropsy (f; JAD; MAD); Dysuria (f; MAD); Eczema (f; DAW); Fever (f; MAD); Gas (f; JAD); Gastrosis (1; X9720615); Gonorrhoea (f; DAW; JAD; MAD); Hemorrhoids (f; JAD; MAD); Infection (1; JAD; PH2); Inflammation (f1; PH2; X14567068); Kidney Stones (1; PH2); Leucorrhoea (f; JAD); Mucososis (f; PH2); Psoriasis (f; MAD); Pulmonosis (f; MAD; PH2); Rheumatism (f; MAD); Tumors (1; X12165328); UTIs (1; PH2); VD (F; JAD; MAD); Wounds (1; X12458476).

**Dosages:**

FNFF = ? ½–1 g capsule (MAD); 25–30 drops tincture 3×/day (MAD).

**Downsides:**

Not covered (AHP). 5 g can cause stomach pain (PH2). Large doses purgative and emetic, causing strangury, bloody urine, and fever. The resin irritates the whole mucous membrane, imparting a peculiar odor to the urine and breath, and causes an eruption resembling measles attended with irritation and tingling (JAD). As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**Extracts:**

Oil larvicidal for *Aedes aegypti*, LC50 = 41 µg/l (X16253435), is also rich in the diterpene kaurenoic acid, known to have antiinflammatory, diuretic, and hypotensive effects *in vivo*, antimicrobial, cytotoxic, smooth muscle and uterorelaxant *in vitro*, is also shown to be embryotoxic (sea urchin embryo), genotoxic (ant at 78 µM), antileukemic (95%), and anticancer (breast and colon) 45% (X12165328; X12722132; X16182426). Oleo-resin and kaurenoic acid had protective effect in colitis-induced rats (200–400 mg/kg and 50–100 mg/kg, respectively) (X14567068; X15182904); bark oleo-resin gastroprotective in induced gastric lesions in rats (200–400 mg/kg), and wound healing (X12458476; X9720615).

**COPAIBA (*Copaifera officinalis* (Jacq.) L.) +  
CAESALPINIACEAE**

**Illustrations:**

fig 74 (DAV) (*C. reticulata*)

**Synonyms:**

*Copaifera paupera* (Herzog) Dwyer; *Copaiva officinalis* Jacq. (basionym); fide (USN).

**Notes:**

The taxonomy and chemical composition of copaiba is about as complex as that of myrrh. Collected in the wild by non-taxonomists, the collections may often represent a mixture of highly variable species. So the studies of the resins can rarely if ever be authenticated, unless the resin and the voucher specimens are gathered by the same interested party. I am almost certain that the indications below refer to one of the four scientific names, and suspect they apply equally well to all four. But until all have been vouchered and studied properly, I think a rather broad-brush generic approach is in order. McGuffin et al. (2000) give “copaiba” as the standardized common name for *Copaifera officinalis*, and “Brazilian copaiba” for both *Copaifera multijuga* Hane and *Copaifera reticulata* Ducke. Taylor (2005) entries below, as RAI, may apply to any of these, the so-called “diesel tree” *Copaifera langsdorffii*, or one of the above. Egg (1999) aggregates both *C. officinalis* and *C. reticulata* under *C. paupera* (not in USDA nomenclature database (USN)). That the oleoresin called “copaiba” could be obtained incising the trunk was reported in England in 1625, “... a single tree ... said to yield about 40 litres” (GMH). Natives reportedly drill a 5-centimeter hole into the 1-meter thick trunk and put a bung into it. Every 6 months or so, they remove the bung and collect 15 to 20 liters of the hydrocarbon. Since there are few diesels in the jungle, the natives use the hydrocarbon as an emollient and for other non-energy-related purposes. But tests show that the liquid can be placed directly in the fuel tank of a diesel-powered car. As the price of energy rises, you can bet that they’ll be revisiting concepts like these for alternative energy sources (HOE).

**Common Names:**

Aciete (Sp.; USN); Akui Ná (Ese’ejá; MD2); Aracaibo Copaiba (Ocn.; AH2); Balsam Capivi (Eng.; IED); Bois de Sang (Fr.; USN); Bonshish (Shipibo/Conibo; MD2); Bonshish Matisiati (Shipibo/Conibo; EGG); Bunxix (Conibo; EGG); Cabimo (Pan.; IED); Canime (Col.; IED); Copahu (Fr.; USN); Copaiba (Eng.; Scn.; AH2; IED; USN) Copaiba Balsam (Eng.; IED; USN); Copaibabaum (Ger.; USN); Copaíba Verdadeira (Brazil; MPB); Copaiba Negra (Peru; RAR); Copaíva (Brazil; MPB); Copal (Peru; DAV); Copayer (Fr.; USN); Copayero (Sp.; USN); Jatobá-Mirim (Brazil; MTB); Jesuit’s Balsam (Eng.); Kempe (Matsigenka; MD2); Kopnu (Piro; Yine; MD2); Kupedn Kupedn (Amarakaeri; MD2); Marimari (Sa.; EGG); Matisihuati (Sa.; EGG); Namboman Tsacati (Shipibo/Conibo; EGG); Palo de Aceite (Peru; RAR); Pau de Óleo (Brazil; MPB); Venezuela Copaiba (Eng.; AH2); Vonshiish (Amahuaca; Peru; EGG); Wonshish (Amahuaca; Peru; MD2); Yapicaé (Bol.; Chiriguano; DLZ).

**Activities:**

Analgesic (f; RAI); Antacid (f; RAI); Antiedemic (1; PR15:476); Antiinflammatory (1; MPB; PR15:476; X3352280); Antiseptic (f1; JAD; PH2; RAI); Antitumor (f; RAI); Antitussive (f; RAI); Antiulcer (f1; RAI); Bactericide (1; PH2; RAI); Balsamic (f; MPG); Carminative (f; JAD); Diuretic (f; RAI); Emetic (f; JAD; MPB); Emollient (f; HOE; RAI); Expectorant (f; JAD; RAI); Fungicide (f1; RAI); Gastroprotective (f1; RAI); Hemostat (f; RAI); Hydragogue (f; JAD); Hypotensive (f; MPG); Laxative (f; MPB); Mucolytic (f; RAI); Secretolytic (f; RAI); Stimulant (f; JAD); Stomachic (f; MPG); Urinary Antiseptic (1; PH2); Vermifuge (f; RAI); Vulnerary (f1; MPG; RAI).

**Indications:**

Arthritis (f; EGG); Asthma (f; EGG; MD2); Bacteria (f1; PH2; RAI); Bleeding (f; RAI); Blennorrhagia (f; MPG); Bronchosis (f; DLZ; EGG; RAI); Burns (f; DLZ; MD2); Cancer (f1; EGG; MPG; RAI); Cancer, breast (f1; EGG; MPG; RAI); Cancer, colon (f1; EGG; MPG; RAI); Cancer, lung (f1; EGG; MPG; RAI); Carcinoma (2 × 5-Fluorouacil) (1; RAI); Catarrh (f; MPG); Chilblains (f; JAD; RAI); Colds (f; EGG); Colic (f; MD2); Constipation (f; MPB; RAI); Coughs (f; EGG; RAI); Cystosis (f; DLZ; JAD; MAD; RAI); Dandruff (f; RAI); Dermatitis (f; DAW; EGG; RAI); Diarrhea (f; JAD); Dislocation (f; DLZ); Dropsy (f; JAD; MAD);



Dysentery (f; MPG; RAI); Dysuria (f; MAD); Earache (f; EGG); Eczema (f; DAW; RAI); Edema (f1; PR15:476; RAI); Enterosis (f; RAI); Fever (f; MAD); Flu (f; RAI); Fungus (f1; MD2; RAI); Gas (f; JAD; RAI); Gastrosis (f1; RAI); Gonorrhea (f; DAW; JAD; MAD; MD2; RAI); Hemorrhoids (f; EGG; MAD); High Blood Pressure (f; EGG; MPG; RAI); Incontinence (f; DLZ; RAI); Indigestion (f; RAI); Infection (f1; JAD; PH2; RAI); Inflammation (f1; EGG; MPB; PH2; PR15:476; RAI; X3352280); Itch (f; EGG; RAI); Kidney Stones (1; PH2); *Leishmania* (f; RAI); Leukemia (1; RAI); Leukorrhea (f; MPG); Lymphoma (1; RAI); Melanoma (1; RAI); Mucososis (f; PH2; RAI); Myalgia (f; EGG; RAI); Mycosis (f1; EGG; MD2; RAI); Nephrosis (f; DLZ; RAI); Oliguria (f; RAI); Onychosis (f1; RAI); Pain (f1; EGG; RAI); Phthisis (f; DLZ); Pleurisy (f; RAI); Pneumonia (f; MPG; RAI); Psoriasis (f; MAD; MPG); Pulmonosis (f; MAD; PH2; RAI); Respirosis (f; RAI); Rheumatism (f; DLZ; MAD); Sinusosis (f; RAI); Sores (f; DLZ; MD2); Sore Throat (f; MAD; RAI); Swelling (f; RAI); Syphilis (f; RAI); Tetanus (f; EGG); Tonsilosis (f; EGG); Tuberculosis (f; RAI); Ulcers (f1; EGG; RAI); UTIs (f1; PH2; RAI); Vaginosis (f; RAI); VD (f; IED; MAD; RAI); Worms (f; RAI); Wounds (f1; DLZ; MD2; MPG; RAI).

### Dosages:

FNFF = ? ½–1 g capsule (MAD); 25–30 drops tincture 3×/day (MAD); 5–15 drops copaiba/cup hot water 2–3×/day (RAI).

- Bolivians suggest for bronchitis, burns, cystosis, dislocated bones, incontinence, nephrosis, phthisis, rheumatism, sores, syphilis, and wounds (DLZ).
- Brazilians use for bacteria, bronchitis, cancer, cough, cystitis, dandruff, dermatitis, diarrhea, dysentery, enterosis, flu, gastritis, gonorrhea, high blood pressure, incontinence, infection, inflammation, nephritis, pain, parasites, pharyngitis, pneumonia, psoriasis, pulmonosis, respirosis, sinusitis, sores, sore throat, syphilis, tetanus, tonsillitis, tumors, ulcers, urethrosis, UTIs, vaginosis, and wounds (MPB; RAI).
- Peruvians use *C. reticulata* (or *C. officinalis*; *C. paupera*) as cicatrizant, for gonorrhea, psoriasis, and sores (SAR); for bleeding, bronchoses, catarrh, edema, gastrosis, herpes, incontinence, *Leishmania*, myalgia, oliguria, pleurisy, sore throat, syphilis, tetanus, tuberculosis, urinary incontinence, UTIs, vaginosis, and wounds (DAV).
- Yaviza Negroes (Darién, Panama) mix copaiba with honey and put in the mouths of newly born to impart knowledge and ward off hexes; also used for VD (IED).

### Downsides:

Not covered (AHP). 5 g can cause stomach pain (PH2). Large doses purgative and emetic, causing strangury, bloody urine, and fever. The resin irritates the whole mucous membrane, imparting a peculiar odor to the urine and breath; causes an eruption resembling measles attended with irritation and tingling (JAD). As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

### Extracts:

Oleoresin (*C. paupera*) diterpenes antimicrobial (MIC < 10 µg/ml) against Gram-positive bacteria, comparable to cephotaxime, and moderately cytotoxic against four cancer cell lines (X12357392). Oleoresin from Brazilian *Copaifera* species containing copalic acid and sesquiterpenes antiinflammatory (0.70–2.69 ml/kg), less effective than 50 mg/kg calcium phenylbutazone, and at 1.26 ml/kg for 6 days reduced granuloma formation comparable to 20 mg/kg calcium phenylbutazone; LD50 = 3.79 (3.21–4.47) ml/kg rat (X3352280). It was shown that some commercial copaiba oils were antiedemic and antiinflammatory, attributing the activities to the sesquiterpenes. Some inactive oils may have been adulterated (PR15:476).

**GARLIC TREE (*Cordia alliodora* (Ruiz & Pav.) Oken) ++****BORAGINACEAE****Illustrations:**

fig 105 (IED)

**Synonyms:***Cerdana alliodora* Ruiz & Pav. (basonym); *Cordia gerascanthus* Jacq.; fide (MPG; USN).**Notes:**

Two attendant ant species at La Selva behave mutualistically, while two others appear to be parasites of the mutualism. The mutualistic ants feed at a higher trophic level than the parasitic ants. Behavioral and dietary evidence suggest a protective role for the mutualists; parasitic ants probably do not protect the plant by consuming herbivores (X15179580). A honey tree, often used to shade coffee.

**Common Names:**

Abib (Ma.; JFM); Aguardientillo (Ma.; JFM); Ajasasa (Peru; SOU); Ajo Ajo (Aym.; Bol.; Peru; DLZ; USN); Ajo de Montana (Ecu.; MPG); Ajoes de Monte (Bol.; DLZ); Ajos Quiro (Peru; DAV); Ajos Sacha (Que.; DLZ); Alatrique (Sp.; Ven.; AVP; USN); Amapa (Ma.; JFM); Amapa Bola (Ma.; JFM); Amapa Hasta (Mex.; AVP; JFM); Amapa Prieta (Ma.; JFM); Anyallo Caspi (Peru; DAV); Arbol del Ajo (Ma.; Peru; AVP; JFM); Bari (Ma.; JFM); Baria (Cuba; Sp.; AVP); Bohon Blanco (Ma.; JFM); Bohum (Ma.; JFM); Bohun (Bel.; BNA); Bois de Chypre (Fr.; USN); Bois de Rhodes (Ma.; JFM); Bois de Rose (His.; AHL); Bois Saumee (His.; AHL); Bois Soumis (Haiti; AVP); Bojon (Mex.; AVP); Bojon Prieto (Mex.; AVP); Brown Silver Balli (Guy.; AVP; JFM); Canalete (Col.; IED; USN); Canalete de Humo (Ma.; JFM); Canjaro (Ven.; AVP); Canjelon (Ven.; AVP); Capá (Dor.; Pan.; Pr.; AVP; IED; USN); Capa de Olor (Ma.; JFM); Capa de Sabana (Dor.; AHL); Capa Prieta (Pr.; AVP); Caparo (Dor.; AHL); Capa Roja (Cuba; AVP); Cautaro (Ma.; JFM); Chene Caparo (Haiti; AHL; AVP); Chullachaqui Blanco (Peru; SOU); Clammy Cherry (Eng.; DAV); Cueramo (Ma.; JFM); Cyp (Trin.; AVP); Cypre (Fwi.; Trin.; AVP; USN); Cypre Oranger de la Martinique (Fr.; AVP); Cypress (Tobago; AVP); Frutilla (Ma.; JFM); Guacimilla (Dor.; AHL); Guinine (Chiriguano; DLZ); Hormiguero (Mex.; AVP); Hormiguillo (Mex.; AVP); Huixte (Ma.; JFM); Lana Plancho (Peru; Sp.; MDD); Laurel (Bel.; Pan.; Peru; AVP; IED); Laurel Blanco (Bel.; Ecu.; Sal.; Sp.; AVP; MPG; USN); Laurel Cypre (Ma.; JFM); Laurel de Puna (Ecu.; MPG); Laurel Macho (Nic.; AVP); Laurel Negro (Por.; Sp.; AVP; USN); Laurel Prieto (Ma.; JFM); Louro (Por.; AVP); Louro-Amarillo (Por.; USN); Louro Amarillo (Por.; AVP); Mapou Blanc (Fr.; AVP); Onion Cordia (Eng.; AVP); Pajarito Prieto (Ma.; JFM); Palo de Rosa (Mex.; AVP); Palo de Viga (Ma.; JFM); Palo Maria (Mex.; AVP); Pardino (Fr.; Ven.; AVP; USN); Pardino de Monte (Ma.; JFM); Pardino Negro (Ma.; JFM); Peterbi (Par.; AVP); Pomarosa (Bel.; BNA); Popocotle (Ma.; JFM); Prince Wood (Eng.; AVP); Rosadillo (Ma.; JFM); Salaam (Ma.; JFM); Salmwood (Bel.; Eng.; BNA; USN); Samwood (Bel.; Eng.; BNA; IED); Sebestes (Fr.; AVP); Solera (Ma.; JFM); Soleria (Ma.; JFM); Solerillo (Ma.; JFM); Spanish Elm (Eng.; Jam.; AVP); Spruce (Antigua; AVP); Sucha (Ma.; JFM); Suchicahue (Peru; AVP); Suchicuahua (Ma.; JFM); Tacurai (Ma.; JFM); Tambor (Mex.; AVP); Tambor Hormiguero (Ma.; JFM); Tusa Tioco (Ma.; JFM); Ullukachi (Callawaya; DLZ); Ururazeiro (Por.; AVP); Varia (Sp.; AVP); Varia Amarilla (Ma.; JFM); Varia Colorado (Ma.; JFM); Varia Negra (Cuba; AVP); Varia Prieta (Cuba; AVP).

**Activities:**

Antiseptic (f1; MPG); Attifuge (f; MPG); Bactericide (1; X17178202); Cicatrizant (f; MPG); Depurative (f; IED); Emollient (f; MPG); Fungicide (1; X10757739); Insectifuge (f; MPG); Larvicide (1; X10757739); Mosquitocide (1; X10757739); Stomachic (f; IED); Tonic (f; IED); Vulnerary (f1; MPG).

**Indications:**

Anemia (f; IED); Asthma (f; DLZ); Bacteria (1; X17178202); Bronchosis (f; DLZ); Bruises (f; JFM); Catarrh (f; IED); Cramps (f; MPG); Dermatitis (f; IED); Fungus (1; X10757739); Infection (f1; MPG; X10757739; X17178202); Myalgia (f; MPG); Mycosis (1; X10757739); Pain (f; MPG); Pulmonosis (f; JFM); Rashes (f; IED); Rheumatism (f; MPG); Sciatica (f; MPG); Sores (f1; IED; MPG); Swelling (f; JFM); Tuberculosis (f; DLZ); VD (f; MPG); Wounds (f1; MPG).

**Dosages:**

FNFF = ! Fruits said to be eaten (IED). Powdered leaves or bark used as garlic substitute (MPG).

- Bolivians suggest the floral infusion for bronchial infections (DLZ).
- Bolivians suggest wood decoction in baths for cramps and myalgia (DLZ).
- Ecuadorians use a poultice of mashed young shoots on sores and wounds, as antiseptic, cicatrizant, and emollient (MPG).
- Latinos use alcoholic bark macerate to massage cramps, myalgia, rheumatism, and sciatica (MPG).
- Latinos use decoction for VD (100 g bark/l water) (MPG).
- Latinos use leaf tea or decoction as stimulant tonic for asthma, bronchitis, catarrh, and tuberculosis (DLZ; JFM).
- Salvadorans apply leaf decoction to bruises and swellings; heated leaves to wounds (JFM).
- West Indians make a seed ointment and apply to dermatoses (JFM).

**Extracts:**

Bark extract antimicrobial (X17178202). Several compounds from root bark antifungal against *Cladosporium cucumerinum* and larvicidal against *Aedes aegypti* (X10757739).

## CHÁ-DE-BUGRE (*Cordia ecalyculata* Vell.) + BORAGINACEAE

**Synonyms:**

*Cordia salicifolia* Cham.; fide (USN).

**Common Names:**

Boid d'Inde (Sa.; RAI); Bois d'Ine (Sa.; RAI); Bugrinho (Brazil; MPB; RAI); Café de Bugre (Sa.; RAI); Café do Mato (Brazil; MPB); Cafezinho (Brazil; MPB); Chá-de-Bugre (Eng.; Por.; Scn.; AH2; USN); Chá-de-Frade (Brazil; MPB; RAI); Chá-de-Negro-Mina (Brazil; MPB; RAI); Chá-do-Bugre (Brazil; MPB); Claraiba (Sa.; RAI); Coquelicot (Sa.; RAI); Grao do Porco (Sa.; RAI); Laranjeira do Mato (Brazil; MPB; RAI); Louro Mole (Brazil; MPB; RAI); Louro Salguiero (Brazil; MPB; RAI); Porangaba (Brazil; MPB; RAI); Rabugem (Sa.; RAI).

**Activities:**

Anorectic (f; RAI); Antiherpetic (1; RAI; X1963951); Antiobesity (f1; MPB); Antiviral (1; RAI; X1963951); Cardioprotective (f; RAI); Cardiotonic (f1; RAI); Circulotonic (f; RAI);

Diuretic (f1; MPB; RAI); Febrifuge (f; RAI); Hypouricemic (f; RAI); Stimulant (f; RAI); Vulnerary (f1; FNF; MPB).

**Indications:**

Arthritis (f; RAI); Cancer (1; RAI); Cardiopathy (f1; RAI); Cellulite (f; RAI); Coughs (f1; MPB); Fever (f; RAI); Gout (f; RAI); Herpes (1; RAI; X1963951); Infection (1; RAI; X1963951); Kidney Stones (f; RAI); Nephrosis (f; RAI); Obesity (f1; MPB); Oliguria (f; RAI); Rheumatism (f; RAI); Viruses (1; RAI; X1963951); Wounds (f1; FNF; MPB).

**Dosages:**

FNFF = ! Berries roasted and brewed like coffee (RAI). 1 cup tea 30–60 min before meals (RAI); 2–3 ml tincture 2–3×/day (RAI); 2–3 g capsule/tablet 2×/day (RAI).

- Brazilians use as cardiogenic, circulatory, and diuretic, for arthritis, cellulite, cough, fever, gout, kidney stones, nephrosis, obesity, rheumatism, and wounds (RAI).
- Haitians use as a digestive stimulant in obesity (RAI).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**AÑALLO CASPI (*Cordia nodosa* Lam.) +  
BORAGINACEAE**

**Notes:**

Apparently Guyanese treat or use *C. hirsuta* and *C. collacocca* similarly if not rendering them synonymous (GMJ).

**Common Names:**

Allqa Maliki (Aym.; DLZ); Almenchillo (Peru; SOU); Almendrillo (Peru; SOU); Añallo Caspi (Peru; SOU); Añallo Caspi (Peru; Sp.; LOR); Arua Felpudo (Por.; GMJ); Ayahuasco (Peru; SOU); Grãd de Galo (Por.; GMJ); Huevo de Gato (Peru; Sp.; MDD); Ibrachoreri (Huitoto; SAR; SOU); Kaag (Miraña; SAR); Kasiu Ban (Palikur; GMJ); Lamoussé Fourmi (Creole; Guy.; GMJ); Picana Blanca (Bol.; DLZ); Pucaruro Caspi (Peru; SOU); Samkagantaje (Peru; SOU); Yawatai (Guy.; Wayãpi; GMJ); Yuquerobuso (Chiriguano; DLZ). (Nscn; American entries diacritical prepared).

**Activities:**

Antispasmodic (f; DLZ); Larvicide (f; SAR); Pectoral (f; GMJ).

**Indications:**

Arthrosis (f; DLZ); Botfly (f; SAR); Chest Colds (f; GMJ); Colds (f; GMJ); Cramps (f; DLZ); Paralysis (f; DLZ); Pulmonosis (f; GMJ); Rheumatism (f; DLZ); Snake Bite (f; DAV); Spasms (f; DLZ); Tetanus (f; DLZ).

**Dosages:**

FNFF = ? Leaf paste poulticed over botfly larvae (SAR). Leaves poulticed onto snake bite.

**SHANSHI (*Coriaria ruscifolia* L.) X****CORIARIACEAE****Synonyms:**

*Coriaria atropurpurea* DC.; *C. microphylla* DC.; *C. phyllicifolia* Humb. & Bonpl.; *C. thymifolia* Humb & Bonpl.; *Heterocladus caracasanus* Turcz.; *Heterophyllia caracasana* (Turcz.) Turcz.; fide (MPG).

**Common Names:**

Barbasco (Col.; MPG); Chanche (Peru; MPG); Chanchi (Col.; MPG); Chanchí (Peru; MPG); Chanci (Ecu.; MPG); Curtidera (Col.; MPG); Guinanina (Bol.; Chiriguano; DLZ); Llama Miyo (Peru; MPG); Milloghya (Peru; EGG); Mio (Bol.; Peru; DLZ; MPG); Mio Mio (Bol.; Peru; DLZ; MPG); Miyo Miyo (Peru; MPG); Mortiño Borrachero (Col.; MPG); Mortiño Zumaque (Col.; MPG); Piñan (Ecu.; MPG); Pinyang (Ecu.; MPG); Reventadera (Col.; MPG); Saca Saca (Bol.; Peru; DLZ; MPG); Sak'a Sak'a (Aym.; Bol.; DLZ); Sansá (Col.; MPG); Sansí (Col.; MPG); Sansú (Col.; MPG); Shanchi (Ecu.; MPG); Shanshi (Ecu.; Eng.; CR2; MPG); Sumaque (Col.; MPG); Teñidera (Col.; MPG); Tinta (Col.; Ecu.; MPG); Tisis (Ven.; MPG); Zeu (Chile; MPG); Zhazhi (Ecu.; MPG); Zumaque (Peru; MPG). (Nscn).

**Activities:**

Antiseptic (1; X11429254); Astringent (f; CRC); Bactericide (1; X11429254); Canicide (f; CRC); CNS-Stimulant (1; MPG); Convulsant (1; MPG; X17303114); Cytotoxic (1; X11429254); Febrifuge (1; MPG); Hallucinogenic (f; CRC); Hypotensive (1; MPG); Poison (f; CRC); Respiro-stimulant (1; MPG); Rodenticide (f; CRC); Spasmogenic (1; X17303114); Stimulant (1; MPG); Toxic (1; MPG; X17303114).

**Indications:**

Bacteria (1; X11429254); Collapse (f; CRC; MPG); Diarrhea (f; CRC); Fever (1; MPG); Hepatitis (f; MPG); High Blood Pressure (1; MPG); Infection (1; X11429254); Mucosis (f; MPG).

**Dosages:**

FNFF = X. Fruits sometimes considered edible but better considered poisonous. 1 mg used as a stimulant in case of collapse (CRC).

**Downsides:**

“Classified as a narcotic hallucinogen (giving flight sensations). The LD50 for the leaves is 3.75 mg/kg, mature fruits 1.55 mg/kg, and green fruits 0.45 mg/kg. Frequent symptoms of intoxication include stupor, vertigo, convulsion. Death may result from asphyxia, respiratory paralysis, and heart failures” (CRC). Coriamyrtin and corarine described as lethal (EGG). Toxic; seizures and convulsions followed by coma and death seen in humans and mice (X17303114). As of July 2007, the FDA Poisonous Plant Database listed 13 titles alluding to toxicity of this species.

**Extracts:**

Methanolic powdered fruit extract yielded corianin and ellagic acid 3,3'-dimethylether with slight antibacterial and cytotoxic activity (X11429254).

**CANDLESTICK GINGER (*Costus scaber* Ruiz & Pav.) ++****COSTACEAE****Illustrations:**

fig 76 (DAV); p 111 (DLZ)

**Common Names:**

Caña Agria (Bol.; DLZ); Caña Caña (Peru; Sp.; MDD); Cañagre (Peru; Sp.; LOR; MDD); Canne Congo (Creole; Guy.; GMJ); Kapiyai Pila (Wayãpi; GMJ); Nupurumunga (Chiriguana; DLZ); Oboris (Chiquitano; DLZ); Purum Punya (Peru; SOU); Tuiu (Palikur; GMJ).

**Indications:**

Biliousness (f; DLZ); Bleennorrhagia (f; GMJ); Bronchosis (f; CTD); Calluses (f; DLZ); Fever (f; CTD); Flu (f; GMJ); Gastrosis (f; CTD); Hepatosis (f; DAV; DLZ); Infection (f; DAV); Leukorrhoea (f; GMJ); Snake Bite (f; DAV); Splinters (f; DLZ); Stomachache (f; DAV); Vaginosis (f; DAV); Worms (f; DAV).

**Dosages:**

FNFF = ! Widely eaten (FAC; TAN). Has ethnoveterinary applications in Trinidad (X11737880).

### SPIKED SPIRAL-FLAG (*Costus spicatus* (Jacq.) Sw.) ++

#### COSTACEAE

**Synonyms:**

*Alpinia spicata* Jacq. (basionym); *Amomum petiolatum* Lam.; *Costus conicus* Stokes; *C. cylindricus* Jacq.; *C. micranthus* Gagnep.; *C. quartus* Roem. & Schult.; fide (POR; USN).

**Notes:**

Close kin to *C. arabicus* (GMJ). Antillean species whose name is often misapplied to *C. spiralis* (BNA). Mors et al. (2000) treat both *C. spicatus* and *C. spiralis* in Brazil.

**Common Names:**

Amome Velu Pétiolé (Car.; Fr.; POR); Caatinga (Brazil; MPB); Caña Amarga (Ma.; JFM); Cana Branca (Brazil; MPB); Caña de Arroyo (Cuba; Ma.; JFM; RyM); Caña de Cristo (Ma.; JFM); Cana de Macaco (Brazil; Por.; GMB; POR; RAR); Cana do Brejo (Brazil; Por.; GMJ; MPB; POR); Caña do Mato (Ma.; JFM); Cañagria (Ma.; JFM); Canarana (Brazil; MPB); Cana-Roxa (Brazil; Por.; POR; RAR); Cana Roxa do Brejo (Brazil; Por.; POR); Cañita Agria (Ma.; JFM); Canne Congo (Car.; Creole; Fr.; Guy.; GMJ; POR); Canne d'Eau (Car.; Creole; Fr.; Ma.; JFM; POR); Canne Marron (Fr.; Creole); Cañuela Santa (Ma.; JFM); Costos (Sp.; POR); Flor-da-Paixão (Brazil; Por.; POR); Gengibre Cimarrón (Dor.; AHL); Indian-Head Ginger (Eng.; POR); Jacuacanga (Brazil; GMJ; MPB; RAR); Kapiyuwa Asikalu (Wayãpi; GMJ); Ku (Ma.; JFM); Ninya Pucchucu Pango (Peru; RAR); Paco Caatinga (Brazil; MPB); Pacova (Brazil; MPB); Pahtsab (Ma.; JFM); Pakuite (Ma.; JFM); Peninaa (Brazil; RAR); Perina (Brazil; MPB); Petit Degonfle (Ma.; JFM);

Petit Dégonflé (Car.; Créole; Fr.; POR); Pobre Velha (Brazil; MPB); Sangapilla (Peru; RAR); Singafu (Boni; GMJ); Spiked Spiral-Flag (Eng.; Scn.; AH2; POR; USN); Tirabuzon (Ma.; JFM); Tui Seino (Palikur; GMJ); Ubacaia (Brazil; MPB); Ubacaia Caatinga (Brazil; RAR).

#### Activities:

Anthelmintic (f; RAR); Antiseptic (1; X382278); Carminative (f; AHL); Depurative (f; MPB); Diaphoretic (f; MPB); Diuretic (f; IED; JFM; MPB); Emmenagogue (f; JFM; MPB); Litholytic (f; JFM; MPB); Stimulant (f; JFM).

#### Indications:

Blennorrhagia (f; GMJ); Cancer (f; MPB); Coqueluche (f; GMJ); Coughs (f; MPB); Cystosis (f; JFM; MPB); Dysuria (f; JFM); Fever (f; MPB); Flu (f; GMJ); Gas (f; AHL; JFM); Gonorrhea (f; MPB); Infection (1; X382278); Kidney Stones (f; JFM); Leukorrhea (f; MPB); Nephrosis (f; MPB); Rheumatism (f; AHL; JFM); Stones (f; JFM; MPB); Urethrosis (f; JFM; MPB); VD (f; JFM; MPB); Worms (f; RAR).

#### Dosages:

FNFF = ! Fairly widely eaten (FAC; TAN). Brazilians drink the plant juice sweetened with added water (JFM).

- Brazilians suggest poulticing the plant onto tumors (MPB).
- Central Americans drink the plant juice as diuretic, emmenagogue, and stimulant (JFM).
- Costa Ricans boil the plant with horsetail and passionflower as a diuretic (JFM).
- Dominicans and French West Indians suggest leaf decoction for gas and rheumatism (AHL; JFM).
- Latinos consider the violet-scented root decoction (that turns the urine purple) useful in cystosis, kidney stones, and urethrosis (JFM).
- Trinidadians take the decoction for urinary burning and VD (JFM).

#### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

#### Extracts:

Leaf and root alcoholic extracts antimicrobial (X382278).

### MILK TREE (*Couma macrocarpa* Barb. Rodr.) ++

#### APOCYNACEAE



**Illustrations:**

fig 77 (DAV)

**Common Names:**

Arbol de Leche (Col.; IED); Aso (Sp.; USN); Avichuri (Col.; IED); Bimion (Cashibo; RAR); Capirona (Peru; Sp.; LOR); Chicle (Eng.; IED); Cow Tree (Eng.; IED); Cuman (Brazil; RAR); Cumassu (Brazil; RAR); Daum (Peru; SOU); Fransoco (Sp.; USN); Icaucau (Huitoto; SAR); Inumentsis (Shipibo; RAR); Itapeua (Brazil; RAR); Juansoco (Col.; Peru; RAR; SAR); Leche Caspi (Peru; Que.; Sp.; DLZ; LOR; MDD; USN); Leche Huayo (Sp.; USN); Marfim (Brazil; RAR); Osurba (Peru; RAR); Perillo (Col.; IED); Perillo Sorva (Peru; RAR); Pero (Col.; IED); Popa (Col.; IED); Sejuco (Karijona; SAR); Sorva (Por.; USN); Sorva da Mata (Brazil; MPB); Sorveira (Brazil; MPB).

**Activities:**

Amebicide (f; MPB); Antiseptic (f; DAV); Purgative (f; DAV); Resolvent (f; DAV); Vulnerary (f; DAV).

**Indications:**

Amebiasis (f; DAV; MPB); Asthma (f; DAV); Childbirth (f; DAV); Dermatitis (f; DAV); Diarrhea (f; DAV; IED); Infection (f; DAV); Wounds (f; DAV).

**Dosages:**

FNFF = ! Fruits widely eaten; latex used for chewing gum; leaves used as coffee substitute (RAR; SOU). Latex used for amebiasis (MPB).

- Huitoto may chew leaves like coca leaves (RAR; SOU).

**CANNONBALL TREE (*Couroupita guianensis* Aubl.) +****LECYTHIDACEAE****Notes:**

Cultivated in parks in Dominican Republic as a curio (AHL).

**Common Names:**

Abricó de Macaco (Por.; AVP); Abricot de Singe (Fr. Guiana; AVP); Abricot Sauvage de Cayenne (Fr.; AVP); Aia Huma (Peru; EGG); Arbre à Bombes (Fr.; Haiti; Trin.; AVP; USN); Arbre à Boulet de Canon (Fr.; USN); Ayuhuma (Peru; EGG); Ayu Huma (Peru; EGG); Ayuman (Peru; EGG); Bala de Cañón (Cuba; Dor.; AHL; AVP); Boesi (Dutch; Sur.; AVP); Boskeabas



(Dutch; AVP); Boskelabas (Dutch; AVP); Boulet de Canon (Fr. Guin.; Guad.; AVP; USN); Calabasse Colin (Fr. Guiana; AVP); Cannonball (Trin.; AVP); Cannonball Tree (Br. Guy.; Eng.; AVP; USN); Carrion Tree (Eng.; AVP); Castanha de Macaco (Por.; AVP); Coco de Mono (Pan.; Sp.; Ven.; AVP); Couroupitoumou (Fr. Guiana; AVP); Cuia de Macaco (Por.; AVP); Cuirano (Por.; Sp.; AVP); Granadillo (Pan.; Sp.; AVP); Kalabasi (Dutch; AVP); Koppe (Sur.; AVP); Koppe Jewadabalh (Dutch; AVP); Mamey Hediondo (Ven.; AVP); Marako (Col.; AVP); Mgenoklu Masne (Piro; EGG); Moke (Sp.; Trin.; AVP); Muco (Dor.; His.; Trin.; Ven.; AHL; AVP); Mucuratu (Peru; RAR); Taparo de Chuco (Ven.; RAR); Wilde Abrikoos (Sur.; AVP); Zapote de Mono (Pan.; Sp.; AVP). (Nscn).

#### Activities:

Analgesic (f; EGG); Antirheumatic (f; RAR); Canicide (f; RAR); Depilatory (f; AHL; DAW); Poison (f; AHL; DAW); Vulnerary (f; RAR).

#### Indications:

Acariasis (f; RAR); Arthritis (f; RAR); Bacteria (f; DAV); Dermatitis (f; DAV; RAR); Dysmenorrhea (f; RAR); Fungus (f; DAV); Gastrosis (f; RAR); Infection (f; DAV; RAR); Mange (f; EGG); Mycosis (f; DAV); Pain (f; EGG); Rheumatism (f; RAR); Stomachache (f; RAR); Toothache (f; EGG); Viruses (f; DAV); Wounds (f; RAR).

#### Dosages:

FNFF = X.

- Peruvian shamans use the fruits in ritual baths (EGG).
- Peruvians use the leaves for toothache (EGG).
- Peruvian vets use the fruit in treating mange in dogs (EGG).
- Piro Indians of Peru use the plant to treat serious bacterial, fungoid, or viral dermatoses (DAV).

#### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

### CALABASH TREE (*Crescentia cujete* L.) + BIGNONIACEAE



#### Illustrations:

fig 232 (L&W); fig 51 (MPG)

#### Synonyms:

*Crescentia acuminata*; *C. angustifolia*; *C. arborea*; *C. cuneifolia*; *C. fasciculata*; *C. plectantha*; *C. spathula*.

**Notes:**

This plant is very symbolic in Haitian vodou, the “reposit” or “preferred tree” or habitat of several Iwa, Ayida Wedo, Dambala, Gede, Legba, Ogou Feray, Marinnet, and Simbi (VOD).

**Common Names:**

Ankunip (Peru; EHH; SOU); Arbe à Calebasse (Fr.; KAB); Arbe à Couis (Fr.; KAB); Buhango (Peru; EGG; RAR; SOU); Cabaca (Ma.; JFM); Cabeceira (Ma.; JFM); Calabaca (Ma.; JFM); Calabacero (Cr.; JTR; L&W); Calabash Tree (Bel.; Eng.; Scn.; AAB; AH2; CR2; VOD); Calabasse (Fwi.; L&W); Calabassenbaum (Ger.; AVP); Calabassiere (Fwi.; L&W); Calabaza (Cuba; Pan.; Sp.; L&W; RAR); Calbas (Dwi.; L&W); Calbas Rondo (Dwi.; L&W); Calebasse (Haiti; AVP); Calebassier (Fr.; Fwi.; Haiti; AVP; KAB); Camasa (Ven.; L&W); Cayeira (Peru; EGG; SOU); Cerna (Peru; EGG); Choyne (Brazil; KAB); Choyte (Brazil; KAB); Ciriam (Ma.; JFM); Cirián (Mex.; JTR; L&W); Coite (Ma.; JFM); Coitezeira (Por.; AVP); Columo (Ma.; JFM); Cuautecomate (Mex.; AVP); Cucharó (Ven.; L&W); Cueira (Ma.; JFM); Cuia (Por.; AVP); Cuieira (Brazil; RAR); Cuiete (Brazil; Ma.; JFM; KAB); Cuintenseira (Ma.; JFM); Cuite (Ma.; JFM); Cuitezeira (Por.; AVP); Cujete (Mex.; Sp.; L&W; RAR); Cutuco (Ma.; Sal.; JFM; JTR); Cuyera (Peru; EGG; SOU); Dweraba Dua (Fanti; KAB); Goud dè Pèlren (Creole; Haiti; VOD); Gourd Tree (Eng.; RAR; VOD); Gua (Ma.; JFM); Guacal (Cr.; Sal.; JTR; L&W); Guaje (Mex.; L&W); Guaje Cirial (Ma.; JFM); Guaje Cirian Guiro (Ma.; JFM); Güira (Cuba; Sp.; EGG; JFM; L&W; RAR; RyM); Güira Cimarrona (Cuba; Ma.; JFM; JTR); Güira Comun (Cuba; JTR); Güira Larga (Cuba; JTR); Güira Redondo (Cuba; JTR); Guire (Ma.; JFM); Guiro Totumo (Ma.; Mex.; JFM; JTR); Gwo Kalbas (Creole; Haiti; VOD); Hibuelero (Wi.; RAR); Higuera (Ma.; JFM); Higüero (Dor.; Peru; Pr.; Sp.; EGG; JTR; L&W; RAR); Hom (Bel.; Guat.; AVP; BNA); Huacal (Ma.; Sal.; JFM; JTR); Huas (Ma.; JFM); Huaz (Bel.; BNA); Huingo (Peru; Sp.; EGG; LOR); Huingo Mase (Peru; EGG; SOU); Ibira Cajia (Chiriguano; DLZ); Japacary (Arg.; AVP); Jenen Mashen (Shipibo/Conibo; EGG); Jicara (Ca.; L&W); Jicaro (Ca.; Haiti; L&W; VOD); Jicaro de Cuchara (Ma.; Sal.; JFM; JTR); Jicaro de Guacal (Ma.; Sal.; JFM; JTR); Kalabas (Afrikaan; KAB); Kalbas (Creole; Haiti; Ma.; JFM; VOD); Kalbas di Mondí (Ma.; JFM); Kalbas Fran (Creole; Haiti; VOD); Kalbas Kouran (Creole; Haiti; VOD); Kalbasyé (Creole; Haiti; VOD); Kalebas (Sur.; L&W); Kalebasboom (Sur.; L&W); Krabasié (Ma.; JFM); La (Chiriguano; DLZ); Marmita de Mono (Bol.; DLZ); Mase (Sp.; RAR); Mate (Chaco; Col.; DLZ; EGG; JTR; SOU); Merique (Pan.; IED); Moñaaño (Peru; EGG; SOU); Monito (Ma.; JFM); Morrito (Sp.; AH2); Morro (Guat.; Hon.; L&W); Morro Guaco (Guat.; JTR); Naba (Cuna; IED); Narrow-Leaved Calabash (Jam.; AVP); Pache (Sp.; EGG; RAR); Packy (Wi.; AVP); Pajo (Culina; EGG; RAR); Palo de Calabaza (Ma.; JFM); Palo Totumas (Pan.; JTR); Pamuco (Peru; EGG; SOU); Pati (Peru; AVP; EGG; SOU); Pati Pamuco (Sp.; EGG; RAR); Pilche (Ecu.; L&W); Pog (Ma.; JFM); Poque (Ma.; JFM); Poro (Bol.; DLZ); Porongo (Bol.; DLZ); Pyé Kalbas (Creole; Haiti; VOD); Raspa Guacal (Cr.; AVP); Savanna Calabash (Bel.; BNA); Sokeburude (Kan.; KAB); Sutak (Ulwa; ULW); Taparo (Ven.; L&W); Tecomate (Mex.; L&W); Totuma (Cuba; JTR); Totumbo (Ma.; JFM); Totumo (Peru; SOU); Tree Calabash (Gold Coast; KAB); Tsápa y Pati (Aguaruna; EGG); Tsitopa (Sakalave; KAB); Turuvottukkay (Tam.; KAB); Tutuma (Ma.; JFM); Tútumo (Bol.; Peru; DLZ; EGG); Tutumo Masen (Shipibo; EGG); West Indian Calabash (Eng.; KAB); Wild Calabash (Bel.; BNA); Wingo (Sp.; RAR); Wira (Garifuna; IED); Yatuseque (Choco; IED); Zacual (Ma.; JFM).

**Activities:**

Abortifacient (f; AAB; DAV; EGG; 60P); Analgesic (f; MPG; 60P); Antiallergic (1; MPG; TRA); Antidiarrheal (f; MPG); Antidote (hippomane) (f; JFM); Antiinflamm-

tory (f1; TRA; VOD; 60P); Antiseptic (f1; MPG; TRA; X11137354; X7604753; 60P); Antitussive (f; EGG; RAR); Aperient (f; KAB); Astringent (f; IED); Carcinogenic (1; MPG; 60P); Choleric (1; DAV; 60P); Depurative (f; JTR); Emetic (f; MPG; WBB; 60P); Emmenagogue (f; AAB; DLZ; MPG); Emollient (f; MPG); Expectorant (f; IED; MPG; VOD); Febrifuge (f; KAB); Hemostat (f; JFM; MPG); Laxative (f1; DLZ; IED; 60P); Orexigenic (f; MPG); Pectoral (f; MPG); Pulifuge (f; JFM); Purgative (1; DAV; JFM; 60P); Suppurative (f; EGG; RAR); Vermifuge (f; MPG; 60P); Vulnerary (f; MPG).

### Indications:

Abscesses (f; EGG); Adenopathy (f; VOD); Allergies (1; MPG; TRA); Alopecia (f; DAV; JFM); Amenorrhea (f; DLZ; EGG); Asthma (f; AAB; DAV; JFM; VOD; 60P); *Bacillus* (1; MPG); Bacteria (1; TRA; X11137354; X7604753); Bilioussness (f; DAV); Bleeding (f; JFM; MPG); Bleennorrhoea (f; DLZ); Bronchosis (f; AAB; DAV; EGG; 60P); Bruises (f; JTR; WBB); Burns (f; WBB); Catarrh (f; MPG; VOD; 60P); Childbirth (f; AAB; JFM); Colds (f; JFM); Congestion (f; AAB; JFM); Constipation (f1; DLZ; IED; TRA; VOD; 60P); Coughs (f; AAB; EGG; JFM; RAR); Dermatitis (f; EGG); Diabetes (f; JFM); Diarrhea (f; IED; MPG; ULW; VOD; 60P); Dropsy (f; DLZ; EGG); Dysentery (f; JFM; JTR; VOD); Dysmenorrhea (f; MPG); Dyspepsia (f; MPG); Earache (f; EGG; MPG; SOU; TRA); Edema (f1; TRA; VOD); Epilepsy (f; VOD); Erysipelas (f; EGG); *Escherichia* (1; AAB); Fever (f; IED; KAB; ULW); Flu (f; 60P); Freckles (f; JFM); Ganglia (f; VOD); Headache (f; EGG; KAB); Hematochezia (f; JFM); Hemorrhoids (f; JFM); Hepatitis (f; MPG); Hernia (f; DAV); Infection (f1; MPG; TRA; VOD; X11137354; X7604753; 60P); Inflammation (f1; MPG; TRA; VOD; 60P); Itch (f; JFM); Leukorrhoea (f; MPG); Nervousness (f; MPG); Pain (f; MPG; 60P); Palpitations (f; MPG); Phthisis (f; DLZ); Pneumonia (f; 60P); *Pseudomonas* (1; AAB); Puerperium (f; VOD); Pulmonosis (f; AAB; IED; JFM; JTR; VOD); Respirosis (f; JTR; ULW); *Salmonella* (1; MPG; TRA); Snake Bite (f1; KAB; WBB; X11025161); Spider Bites (f; JFM); Splenosis (f; VOD); Sprains (f; DAV; JFM; VOD); *Staphylococcus* (1; AAB; MPG; TRA); *Streptococcus* (1; MPG; TRA); Sunburn (f; JFM); Swelling (f1; TRA; VOD); Toothache (f; DAV; EGG; MPG; 60P); Tuberculosis (f; JFM; VOD); Tumors (f; JFM; JLH); Urethritis (f; MPG; VOD); UTIs (f; JFM); Vaginitis (f; JFM); Worms (f; EGG; MPG; 60P); Wounds (f; JFM; MPG; VOD).

### Dosages:

FNFF = ! Fruits eaten (FAC; TAN). Toasted seed eaten (EGG).

- Belizeans boil inner pith from 1 fruit in 2 qt. water with 2 cups sugar 30 min, taking 6 spoonful/day for asthma, bronchosis, congestion, cough, and other lung ailments (AAB).
- Bolivians suggest the fruit decoction with honey as an emmenagogue (DLZ).
- Brazilians take unripe fruit pulp with sugar for fever, poulticing ripe fruit on the forehead for headache (KAB).
- Cubans employ the antiseptic and astringent leaf decoction as a vaginal douche (JFM).
- Cubans regard plant pulp as emetic, emollient, laxative, and pectoral, using for diarrhea, dropsy, and dysentery (JTR).
- Cubans use fruit pulp in beverages (“jarabe”) for asthma, bronchosis, catarrh, and flu (MPG).
- Haitians apply the fruit pulp to bruises, burns, and sunburns, renewing the compress every 4 hr (VOD).
- Haitians, like other nationalities, roast the unripe fruits, incise them, and express the pulp through a cloth, using the juice for asthma, bronchosis, catarrh, constipation, diarrhea, splenosis, and tuberculosis (EGG; VOD).
- In Trinidad and Tobago used for high blood pressure (X17040567).
- Peruvians apply the ripe fruit pulp to erysipelas (EGG).

- Peruvians chew the leaves for toothache (EGG).
- Peruvians drop floral decoction into ear for earache (EGG).
- Peruvians take the jelly (hot fruit juice with honey and lemon) for bronchosis and cough (EGG).
- Peruvians take the ripe fruit decoction as an abortifacient (EGG).
- Peruvians use juice of young fruits for asthma, bronchosis, and diarrhea (EGG).
- Transvaal Afrikaans take burned and powdered small fruits internally; apply locally to snake bite (KAB).

**Downsides:**

While listed as edible in several edible plant books, internal consumption is discouraged (TRA). Fruit pulp may be carcinogenic; ingestion may produce severe diarrhea (TRA). Pulp poisonous, sometimes with HCN. As of July 2007, the FDA Poisonous Plant Database listed six titles alluding to toxicity of this species.

**Extracts:**

Unripe fruits had moderate neutralization on hemorrhagic effect of *Bothrops atrox* venom (X11025161). Methanol leaf and stem bark extracts show broad spectrum antimicrobial activity (X7604753). Several compounds exhibit selective activity towards DNA-repair-deficient yeast mutants (X8254347).

**GREEN STICK (*Critonia morifolia* (Mill.) R. M. King & H. Rob.) +  
ASTERACEAE**

**Synonyms:**

*Eupatorium critonioides* Steetz.; *E. megaphyllum* Baker; *E. morifolium* Mill.; *E. populifolium* HBK.; *E. sartorii* Schultz.

**Common Names:**

Arbol de Santa Maria (Mex.; PCS); Carrizo (Sal.; PCS); Chimaliote (Sal.; PCS); Green Stick (Bel.; Eng.; BNA); Palo Verde (Sp.; BNA); Suelta con Suelda (Sal.; PCS); Taco (Sal.; PCS); Vara Hueca (Sal.; PCS); Xa-Ax-Como-Che (Bel.; Maya; AAB); Xa-Sh-Como-Ch (Bel.; Maya; BNA); Yax Che (Bel.; Maya; BNA). (Nscn).

**Activities:**

Antiedemic (f; AAB); Febrifuge (f; AAB).

**Indications:**

Arthritis (f; AAB); Boils (f; AAB); Bruises (f; AAB); Cysts (f; AAB); Dermatitis (f; AAB); Edema (f; AAB); Fever (f; AAB); Flu (f; AAB); Infection (f; AAB); Insomnia (f; AAB); Malaise (f; AAB); Myosis (f; AAB); Oliguria (f; AAB); Pain (f; AAB); Paralysis (f; AAB); Rheumatism (f; AAB); Sores (f; AAB); Spasms (f; AAB); Swelling (f; AAB); Tumors (f; AAB); Wounds (f; AAB).

**Dosages:**

FNFF = ?

- Belizeans apply leaf, heated in oil, to cysts, sores, and tumors (AAB).
- Belizeans use in steam baths for many of the indications above (AAB).
- Mexicans apply root/shoot decoction to bruises and wounds (AAB).

**DRAGON'S BLOOD CROTON (*Croton lechleri* Müll. Arg.) +****EUPHORBIACEAE****Illustrations:**

fig 80 (DAV)

**Notes:**

Many American species produce red latex, the subject species *Croton lechleri* (Brazil, Bol., Col., Ecu., Peru), *C. charaguensis* (Bol.), *C. draco* (Ca., Mex.), *C. draconioides*, *C. erythrochilus*, *C. gossypifolius* (Cr. to Ven.), *C. hibiscifolius* (Cr. to Ven.), *C. salutaris* (Brazil), *C. sordidus* (Andean), *C. urucurana* (Brazil, Par.), and *C. xalapensis* (Ca., Mex). Many of them are called “dragon’s blood” or some variant thereof and many are used similarly in folk medicine.

I acquiesce to the judgment of the American Herbal Product Association (AHP) which has decided to standardize “dragon’s blood croton” as the official standardized common name. Hmm. I never heard anyone refer to it as “dragon’s blood croton” before, but I’ll abide by the higher hired hands, who laboriously devised standardized common names for 2048 species. And I’ll have to admit, that after a study of all the common names around, Meza (1999) titled her book “*Sangre de grado*” not “*Sangre de drago*,” as McGuffin et al. (1997), and perhaps most gringos and I, seem to prefer. They interviewed 25 of 72 ethnic groups registered by the Instituto Indigenista del Peru. In summary, 24 of the names are used by the aborigines from the rainforest, one from the piedmont of Ayacucho, and 14 by Mestizos. The names belong to 25 ethnic groups corresponding to 10 different linguistic families. No one vernacular name was common to two ethnic groups, except in the Jibaro and Arawak languages. Some of the Mestizo names are mixed Quechua with Spanish. No native name translated “*Sangre de grado*,” but some translated “tree’s blood,” “wood’s blood,” and “croton tree.” I’ve entered all those names, even if they did not necessarily apply to *C. lecherli*, as generic common names for red-blooded *Crotons* below, with MEZ to indicate this paper as source (Meza and Pariona, 1999). Many of the names could apply also or exclusively to *C. palanostigma*. The common name “dragon’s blood” has also been applied to *Bocconia*, *Daemonorops*, *Dracaena*, *Gliricidia*, *Jatropha*, *Machaerium*, and *Pterocarpus* (JAD).

And for years I followed Shaman Pharmaceuticals, a venture-capital pharmaceuticals firm in south San Francisco, under the capable leadership of CEO Lisa Conte, who believes in the empirical wisdom of shamanistic medicine. Anybody smart enough to hire the best ethnobotanists in the country for their medical advisory board is worth following, methinks. On

Oct. 25, 1995, some two weeks after I lectured to them on synergy among phytomedicines, they fired out a press release saying Shaman Pharmaceuticals, Inc. (NASDAQ: SHMN) today announced that Virend, its plant-derived anti-viral drug, was shown to be efficacious in healing herpes lesions in a phase II clinical trial ... The study involved 45 patients with AIDS and recurring genital herpes ... Based on these results, Shaman has begun planning a pivotal Phase III study in patients with genital herpes. Virend, which is a topical formulation of the compound SP-303, is derived from a plant that for generations has been used in South America to treat herpes lesions, as well as a host of other medical conditions. Genital herpes affects more than 30 million people worldwide, with 500,000 new cases diagnosed each year.

The exciting thing is that the Shaman product was used topically, just as my shaman, Antonio Montero Pisco, has applied "dragon's blood" topically to me and many other workshop participants, rather than internally (in Peru, "dragon's blood" is also taken internally). Acyclovir has numerous side effects to boot. "No clinically significant side-effects were noted" with 21 days of topical Virend.

Ironic that employees of Shaman Pharmaceuticals, who, like most pharmaceutical firms, go for the isolated silver magic bullet rather than the synergic whole, should provide me with a reprint showing synergy of the dimethylcedrusine, pycnogenols and taspine, parts of that whole called "dragon's blood." They were synergic in causing wounds in exfoliated rats to heal over. The isolated compounds caused granulation in four days, while the synergic whole accomplished the job in just one. That's why I use "dragon's blood" when I get a cut or abrasion in tropical Peru. And if I were to develop cholera in Peru and had no doctor or pharmaceutical available, you can bet I'd be taking oral "dragon's blood." Unlike Shaman Pharmaceuticals, my shaman, Antonio Montero Pisco, recommends the whole "dragon's blood" which, at least for some indications, has proven better than the sum of its parts (JAD).

### Common Names:

Atadijo (Peru; MEZ); Balsa Macho (Ecu.); Chokillo (Peru; MEZ); Drago (Sa.; RAI); Dragon's Blood (Eng.; CR2; UNS); Dragon's Blood Croton (Eng.; Scn.; AH2; USN); Dyéhpíyibe (Bora; MEZ); Eshápe (Ese'eja; Tacana; MD2; MEZ); False Balsa (Eng.; DAV); Ginmunaji (Arahuaca; Piro; Yine; MD2; MEZ); Huampo (Sp.; RDF5:101); Huampo Roja (Peru; MEZ); Ifi Imo (Yaminahua; Pano; MEZ); Imi Iupo (Amahuaca; Pano; MEZ); Irari (Arahuaca; Ashaninka; MEZ); Irarika (Arahuaca; Ashaninka; MEZ); Jata Akui (Ese'eja; Tacana; MD2; MEZ); Jijimí (Cashinahua; Amahuaca; Pano; MEZ); Jimi Mosho (Conibo; Pano; Shipibo; MEZ); Kosamáti (Arahuaca; Matsigenka; MD2; MEZ); Majati (Arahuaca; Nomatsiguenga; MEZ); Masíkamboya (Amahuaca; MD2; MEZ); Móxooco Jimí (Amahuaca; Pano; MEZ); Nagii Ya Ngugü Gugü (Ticuna; MEZ); Omo'i (Chayahuita; MEZ); Omon Omo'i (Chayahuita; MEZ); Palo de Drago (Peru); Palo de Grado (Arahuaca; Ashaninka; MEZ); Palo Sangriento (Sp.; RDF5:101); Pashña Huachana (Peru; MEZ); Pucure (Peru; MEZ); Rampampach (Arahuaca; Yanasha; MEZ); Sampatil (Peru; MEZ); Sangre de Dragao (Brazil); Sangre de Drago (Ecu.; Peru; DAV; USN); Sangre de Dragón (Peru; Sp.; MEZ; USN); Sangre de Grado (Bol.; Peru; Sp.; DAV; USN); Sangre del Arbol (Sp.; RDF5:101); Sangre de Palo (Sp.; RDF5:101); Sangue de Agua (Sa.; RAI); Sangue de Drago (Sa.; RAI); Señora Vara (Peru; MEZ); Shambo Quiro (Peru; MEZ); Shambu Quiro (Peru; MEZ); Shawan Karo (Conibo; Pano; Shipibo; MEZ); Stie Soquéo (Secoya; Tucano; MEZ); Tigigonyeit (Ocaina; MEZ); Topa Roja (Peru; MEZ); Topillo (Peru; MEZ); Tuúvaée (Bora; MEZ); Ujuchnum (Aguaruna; Jibaro; MEZ); Ujushnum (Aguaruna; Jibaro; MEZ); Uksa Vakiro (Peru; MEZ); Umo'i (Cahuapana; Chayahuita; MEZ); Uruchnum (Huambisa; Jibaro; MEZ); Urúchnum (Achuar; Jibaro; MEZ); Uruch Numi (Achuar; Jibaro; MEZ); Uwura Tsú (Cocamilla; Guarai; Tupi; MEZ); Widnku (Amarakaeri; Harakmbet; MD2; MEZ); Xöncärübëpin (Cacataibo; Pano; MEZ); Yawar Gradwascca (Ayacucho; Que.; MEZ); Zangrado (Sp.; RDF5:101).

**Activities:**

Analgesic (1; X11564183); Anticomplement (1; RDF5:101); Antiedemic (1; X758452); Antiherpetic (1; 60P); Antiinflammatory (f1; X14598201; X15507372; X758452; 60P); Antileukemic (1; RDF5:101); Antimutagenic (1; RAI); Antioxidant (1; X14598201; X9406898; 60P); Antiphagocytotic (1; RDF5:101); Antiradicular (1; 60P); Antirheumatic (1; MPG); Antiseptic (1; RAI; X10898763; 60P); Antitumor (1; PM60:541; 60P); Antiulcer (1; RAI; X10898763); Antiviral (1; RAI; 60P); Astringent (f1; MPG); Bactericide (1; PM60:541; RAI; X7809208); Candidicide (f; MD2); Cicatrizant (f1; MPG; PM55:140; RAI; X15507372; X2748730; 60P); Contraceptive (f; MD2); Cytotoxic (1; PM60:541; 60P); Fungicide (f; MD2; RAI); Hemostat (f1; DAV; RAI); Immunodepressant (f1; RAI; RDF5:101); Immunomodulator (1; X14598201); Immunostimulant (f1; RAI; RDF5:101); Neuroprotective (1; X11564183); Phagocytotic (1; RDF5:101); Prooxidant (1; X14598201; X9406898); Vulnerary (f1; DAV; PM60:541; RAI; RAR).

**Indications:**

Abortion (f; CTD); Allergies (f; RAI); Aphtha (f1; RAI); *Bacillus* (1; RDF5:101); Bacteria (1; PM60:541; RAI; X7809208); Bites (f1; RAI; X14736360); Bleeding (f1; CTD; DAV; MPG; RAI); Cancer (f1; HAD; PM60:541; RAI; X14736360; X15507372; 60P); Cancer, bone (f; CTD); Cancer, colon (1; RAI); Cancer, liver (f1; MD2; RAI); Cancer, skin (f; RAI); Cancer, stomach (f1; MD2; RAI); Cancer, uterus (f; MD2); Candidiasis (f; MD2; SHM); Childbirth (f1; DAV; RAI); Cholera (1; RDF5:101); Colic (f; RDF5:101); Cramps (1; RDF5:101); Cytomegalovirus (1; 60P); Decubitus (f; RAI); Dermatitis (f; RAI; SHM); Diabetes (f; RAI); Diabetic Neuropathy (1; RAI); Diarrhea (f12; RDF5:101; X14736360); Duodenosis (f1; RDF5:101; SHM); Dysentery (1; HAD); Eczema (f; RAI); Edema (1; X758452); Enterosis (f1; DAV; MD2; RAI); Flu (1; RAI; SHM; 60P); Fracture (f1; DAV; RAI; RAR); Fungus (f; MD2; RAI); Gastrosis (f1; DAV; HAD; X10898763); Gingivitis (f; RAI); Gonorrhea (f; MD2); Hemorrhoids (f1; DAV; RAI; RAR); Hepatosis (1; RAI; 60P); Herpes (1; RAI; X14736360; 60P); IBS (f; RAI); Infection (f1; BEJ; PM60:541; RAI; X10898763; X7809208; 60P); Inflammation (f1; 60P; X11564183; X14598201; X15507372; X758452; 60P); Laryngitis (f; RAI); *Leishmania* (f; MD2); Leukemia (1; RAI; RDF5:101); Leukorrhea (f1; DAV; RAR); Mycosis (1; RAI); Nephrosis (f; BEJ); Neuroses (1; RAI; RDF5:101); Oliguria (f; RDF5:101); Onychopathy (f; RAI); Pain (1; X11564183); Parainfluenza (1; RAI); Parotitis (f; MD2); Pharyngitis (f; SHM); Pneumonia (f; SHM); Pyorrhea (f; RDF5:101); Rashes (f; RAI); Respiritis (1; HAD; RAI); Rheumatism (f1; MPG); RSV (1; HAD); Sarcoma (1; RAI); Sores (1; DAV; HAD; MD2); Sore Throat (f; MD2; RAI); *Staphylococcus* (1; MPG; 60P); Stings (f; RAI); Stomatitis (f1; RAI); Swelling (f; RAI); Thrush (f; MD2); Tonsillitis (f; SHM); Toothache (f; SHM); Tuberculosis (f; CTD); Ulcers (f1; DAV; MD2; RAI; X10898763; X14736360); Uterosis (1; DAV); Vaginitis (1; DAV; RAI); VD (f; MD2); Viruses (1; RAI; 60P); Wounds (f1; CTD; DAV; MPG; PM55:140; PM60:541; RAI; RAR; X14736360; X15507372; X2748730; 60P); Yeast (f; MD2; SHM).

**Dosages:**

FNFF = X. Since he came on board (ca. 1994) our “shaman,” Antonio Montero Pisco, applied it topically to bugbites and stings. He also suggests a couple drops of the “blood” in a glass of water for topical and internal applications. Traditional doses are generally 5–20 drops of bark latex, mixed in cold or warm water, juice, milk, or alcohol, taken orally 1–3×/day for up to 3 weeks. I have not seen many references in the literature to the ethnomedical use of *Croton* for stings or bites, but local people on the Napo did indicate that it could be used for that back in the 1980s.

- Brazilians use for bacterial infections, bleeding, cancer, dyspepsia, fever, mycoses, tumors, ulcers, and wounds (RAI).

- Ecuadorians use for cancer, inflammation, and wounds (RAI).
- Madre de Dios Peruvians gargle salted coca tea with 3 drops of resin for sore throat, possibly mumps (MD2).
- Madre de Dios Peruvians mix dragon's blood with *Plantago major* leaf decoction as a douche for gonorrhea (MD2).
- Peruvians apply dragon's blood to leishmanial sores, thrush, wounds, and yeast (MD2).
- Peruvians consider it cicatrizant (X2748730), also using for bleeding, bug bites, cancer, *Candida*, diabetes, diarrhea, eczema, fractures, gastroenterosis, gingivitis, hemorrhoid, infection, laryngosis, pharyngosis, rashes, rheumatism, toothache, tumors, ulcers, vaginosis, and wounds (MD2; RAI).
- Peruvians make a contraceptive of dragon's blood and paico (MD2).

**Downsides:**

“No side effects are known for the internal use of sangre de drago” (as quoted in SHM). “peligroso porque quema los tejidos” (RAR). One study showed that extract given to 53 children with acute leukemias may have actually stimulated survival of leukemic cells, with no effect seen in normal lymphocytes (X16047362). As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**Extracts:**

Taspine cicatrizant *in vivo* in mice (ED<sub>50</sub> = 0.375 mg/kg) with no carcinogenic or tumor promoter activity after 17 months of treatment (X2748730). 1,3,5-trimethoxybenzene and 2,4,6-trimethoxyphenol more active against *Bacillus subtilis* than chloramphenicol and penicillin (RDF5:101). Studies *in vitro* and *in vivo* support most ethnomedical uses, e.g., for diarrhea, herpes, insect bites, stomach ulcers, tumors, and wounds (X14736360). Studies show it to be a potent and cost-effective treatment for gastrointestinal ulcers and distress via antimicrobial, antiinflammatory, and sensory afferent-dependent actions (X10898763). Latex shows immunomodulatory activity, inhibition of proliferation of activated T-cells, free radical scavenging capacity, antioxidant or prooxidant properties (dosage dependent), and good antiinflammatory activity i.p. (X14598201). Sap was found to be non-cytotoxic and had little effect upon the proliferation of endothelial cells, but several phenolic compounds and diterpenes show strong antibacterial activity (X7809208).

**HUIRA HUIRA (*Culcitium canescens* H. & B.) +**

**ASTERACEAE**

**Synonyms:**

*Culcitium rufescens* H. & B; *Senecio canescens* (H. & B) Cuatr.; *S. rufescens* Cuatr, non HBK; fide (MPG).

**Notes:**

Genus often misspelled anagrammatically as Culticium.

**Common Names:**

Anckosh (Peru; EGG); Ancosh (Peru; MPG); Ckola-Huiru (Peru; EGG); Huila-Huila (Peru; MPG); Huiru (Peru; Sp.; EGG); Huiru de la Sierra (Peru; Sp.; EGG); Huiru Huayo (Peru; Sp.; EGG); Huiru-Huiru (Aym.; Bol.; Peru; Que.; DLZ; MPG); Huisa-Huisa (Peru; MPG; SOU); Kina Kina (Peru; Sp.; EGG); Milguash (Peru; MPG); Pfhuiña (Peru; Sp.; EGG); Pulluaga (Peru; Sp.; EGG; SOU); Vira de la Sierra (Bol.; Sp.; DLZ); Vira Vira de la Sierra (Peru; Sp.; EGG; RAR; SOU); Wira-Wira (Peru; MPG). (Nscn).



**Activities:**

Analgesic (1; X7805141); Antitussive (f; RAR); Depurative (f; EGG); Expectorant (f; EGG; MPG); Febrifuge (f; EGG); Mucolytic (f; MPG); Pectoral (f; DLZ; EGG; MPG; SOU); Sudorific (f; DLZ; MPG; SOU).

**Indications:**

Asthma (f; MPG); Coughs (f; EGG; MPG; RAR; SOU); Cystosis (f; EGG); Dyspepsia (f; EGG); Fever (f; EGG); Flu (f; MPG); Pain (1; X7805141); Prostatitis (f; EGG); Respirosis (f; MPG); Rheumatism (f; EGG).

**Dosages:**

FNFF = X.

- Bolivians suggest plant decoction as pectoral and sudorific in coughs (DLZ).
- Peruvians take aqueous tea as depurative, expectorant, febrifuge, and pectoral; tea of 2–3 leaves in milk for asthmatic coughs (MPG).

**Extracts:**

Methanolic extract was analgesic and also prolonged pentobarbital-induced hypnosis (X7805141).

## AMERICAN DODDER (*Cuscuta americana* L.) +

### CUSCUTACEAE

**Notes:**

Some host plants pass genes to the parasitic species that feed off them. It appears that *Cuscuta* (dodder) has passed at least one gene (*atp1*) to one of its host *Plantago*. *Cuscuta* taps into host by inserting tiny tendrils into inner plant, perhaps enabling foreign DNA to escape the host plant's natural defenses. Dodders wrap themselves around many species, and DNA transfer between host and parasite can be a two-way street.

**Common Names:**

Abrazos (Ma.; JFM); Aletria di Mondì (Ma.; JFM); American Dodder (Eng.; Scn.; AH2); Amitie (Haiti; Mart.; AUS; AVP; JFM); Amora Falsoe (Ma.; JFM); Amor di Neguer (Dwi.; Ma.; AUS; JFM); Amor Falso (Ma.; AUS; JFM); Angourre (Fr.; AVP); Arhui Arhui (Ma.; AUS; JFM); Bassbiol Strings (Ma.; AUS; JFM); Bejuco Amarillo (Dor.; AHL; AUS); Bejuco de Buey (Ma.; Pr.; AUS; JFM); Bejuco de Fideo (Cuba; AUS; AVP; RyM); Bejuco de Mono (Pr.; AUS); Bejuquito de Amor (Dor.; AVP); Cabello de Ángel (Chile; Sp.; AVP); Carpaterra (It.); Cheveaux de Venus (Fr.; AVP); Cheveaux de Vierge (Fr.; AVP); Cheveaux du Diable (Fr.; AVP); Cipó Chumbo (Brazil; Por.; AUS; AVP; JFM); Cipó Dourado (Brazil; Por.; AUS); Corde à Violon (Guad.; Mart.; AUS; AVP); Cremaiflère (Fr.; AVP); Cuerda de Violin (Col.; Pr.; Ven.; AUS; AVP; JFM); Curedilla (Col.; Ma.; AUS; JFM); Cuscuta (Por.; AVP); Cuscuta Dourado (Por.; AVP); Cuscute (Fr.; Haiti; AVP); Cuscute d'Amérique (Haiti; AUS; AVP); Devil's Gut (Ma.; JFM); Dodder (Eng.; Jam.; Pr.; AVP; BUR; JFM; VOD); Duivelsnaigaren (Dwi.; Ma.; AUS; JFM); Enreda Cotorra (Col.; AUS); Fideillo (Cuba; Ma.; AUS; JFM); Fideítos (Dor.; AHL; AUS); Fideo(s) (Col.; Cuba; Dor.; Pr.; Ven.; AUS; AVP); Fil Madame (Fr.; AVP); Fios de Ovos (Brazil; AUS); Gale (Fr.; AVP); Garen (Dwi.; AUS); Hell Weed (Ma.; AUS; JFM); Herbe a Amitie (Mart.; AUS; JFM); Herbe a Amourette (Mart.; AUS); Herbe a Z'amourette (Mart.; AVP); Herbe z'Amitié (Guad.; AVP); Hierba Mala (Sp.; AUS); Hilo de Oro (Ven.; AUS; AVP; JFM); Hilu di Diabel (Dwi.; Ma.; AUS; JFM); Kanlecay (Maya; Mex.; AUS; JFM); Lamitye (Creole; Haiti; VOD); Love Bush (Eng.; Jam.; BUR; JFM); Love Vine (Eng.; Jam.; AVP; BUR; JFM); Love Weed (Ma.; JFM); Matalimon (Ma.; JFM); Planta de

Bruja (Ma.; Sp.; AUS; JFM); Planta sin Pie (Ma.; Sp.; AUS; JFM); Râche (Fr.; AVP); Regillo (Col.; Sp.; AVP); Rejillo (Col.; AUS; JFM); Rougeot (Fr.; AVP); Ruble (Fr.; AVP); Snaar (Dwi.; AUS); Teigne (St. Bart.; AVP); Teigne Rogne (Fr.; AVP); Teuferlszwirn (Ger.; AVP); Tignasse (Fr.; AVP); Vermicelle (Haiti; St. Bart.; VP); Wild Vermicelli (Ma.; JFM); Yellow Dodder (Vi.; AVP; JFM). (American entries diacritically prepared).

### Activities:

Alterative (f; AUS); Antibilious (f; AUS); Antiparasitic (f; AUS); Antiseptic (f; DAW; VOD); Aphrodisiac (f; JFM); Astringent (f; EB30:135; HOC); Carminative (f; AUS; DAW; VOD); Cicatrizant (f; VOD); Deodorant (f; DAW); Digestive (f; BUR); Emmenagogue (f; AUS; JFM); Febrifuge (f; AUS; BUR); Hydragogue (f; BUR); Larvicide (1; X2082565); Laxative (f; AUS; DAW; VOD); Orexigenic (f; VOD); Parasiticide (f; AHL; DAW); Purgative (f; VOD); Resolvent (f; DAW); Stomachic (f; BUR); Tonic (f; AUS); Vulnerary (f; DAW).

### Indications:

Amenorrhea (f; AUS; JFM); Anorexia (f; VOD); Backache (f; JFM); Bilioussness (f; AUS; DAW; JFM); Colds (f; AUS; JFM); Colic (f; AUS; JFM); Constipation (f; AUS; DAW; VOD); Dermatitis (f; VOD); Dysentery (f; AUS; JFM); Dyspepsia (f; AUS; BUR; JFM); Dysuria (f; AUS; JFM); Fever (f; AUS; BUR); Gas (f; AUS; DAW; VOD); Hepatosis (f; VOD); Impotence (f; JFM); Infection (f; DAW; VOD); Itch (f; AUS; DAW; JFM; VOD); Jaundice (f; EB30:135; VOD; X17040567); Mange (f; DAW); Marasmus (f; AUS; EB30:135; JFM); Pain (f; JFM); Parasites (f; AHL; AUS; DAW); Prickly Heat (f; AUS); Scrofula (f; BUR); Sores (f; DAW; VOD); Strongyloidiasis (1; X2082565); Wounds (f; DAW; VOD).

### Dosages:

FNFF = ?

- Argentinians take the decoction over time to promote well-being (JFM).
- Bahamans take plant decoction as aphrodisiac and to bathe itch and prickly heat (JFM).
- Cubans use the herb for constipation and jaundice (AUS).
- Dominicans drink the stem tea for jaundice (VOD).
- Haitians apply the decoction on dermatosis and itch, as an antiseptic and cicatrizant (VOD).
- Haitians take the juice or whole plant macerate for anorexia, hepatosis, or jaundice (VOD).
- Haitians use the plant tea as carminative and laxative (VOD).
- Jamaicans drink tea for pediatric cold, colic, and marasmus (JFM).
- Trinidadans take the tea for jaundice and bathe with it for marasmus (JFM; X17040567).
- Yucatanese take tea for bilioussness and dyspepsia (JFM).

### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

### Extracts:

In his great book, *Florida Ethnobotany*, Dan Austin (2004) seems to rule out both the convulvaceous ergoline alkaloids and calystegines in *Cuscuta*, citing Eich and Schimming, respectively. This renders Cuscutaceae a stronger candidate for an independent family, Cuscutaceae. One must remember that parasites, like *Cuscuta*, may extract phytochemicals and DNA from their host plants. Aqueous methanolic leaf extract larvicidal for *Strongyloides stercoralis* (X2082565).

**CAYGUA (*Cyclanthera pedata* (L.) Schrad.) ++****CUCURBITACEAE****Illustrations:**

fig 85 (DAV)

**Synonyms:**

*Cyclanthera digitata* Arm.; *C. edulis* Naud.; *C. pedata* var. *edulis* (Naudin) Cogn.; *Momordica pedata* L. (basonym); *M. pedisecta* Ler.; fide (PIO; USN).

**Notes:**

Able to withstand cold temperatures, it grows prolifically in mountainous valleys in South America, up to 2,000 m elevation (RA2).

**Common Names:**

Achoccha (Peru; Que.; RA2; USN); Achocha (Japan; Que.; Sp.; FAC; POR; RA2); Achojcha (Aym.; Bol.; Peru; Que.; DLZ; FAC; EGG; RA2; SOU); Achokcho (Arg.; PIO); Archucha (Col.; IED); Caiba (Sp.; RA2; USN); Caigua (Bol.; Cinti; Haiti; Peru; Sp.; DAV; DLZ; POR; RA2; SOU; USN); Caihua (Peru; Sp.; RA2; SOU; USN); Caygua (Cr.; Scn.; Sp.; AH2; RA2; USN); Cayhua (Peru; EGG; SOU); Concombre des Andes (Fr.; POR); Concombre Grimpant (Fr.; POR; RA2; USN); Jachoxcha (Aym.; Bol.; DLZ); Kaíhua (Aguaruna; Peru; EGG); Kai-kua (RA2); Kaywa (Bol.; Que.; DLZ); Korila (Eng.; Ger.; FAC; POR; RA2; USN); Korilla (Eng.; POR); Lady's Slipper (RA2); Pepino Andino (RA2); Pepino de Comer (Sp.; RA2; USN); Pepino de Rellenar (Col.; Sp.; FAC; IED; RA2); Slipper Gourd (Eng.; POR; RA2); Stuffing Cucumber (RA2); Taiiuiá de Comer (Brazil; PIO); Taimiá de Cipó (Por.; POR; RA2); Taimiá de Comer (Por.; POR; RA2); Wild Cucumber (Eng.; Ocn.; AH2; POR; RA2; USN).

**Activities:**

Analgesic (f; RA2); Antiatherosclerotic (f; RA2); Antidiabetic (f; RA2); Antiinflammatory (f; EGG; JAF49:5156; RA2); Antioxidant (f1; JAF49:5156; RA2); Antiparasitic (f; RA2); Dentifrice (f; RA2; SOU); Diuretic (f; EGG; RA2); Febrifuge (f; DLZ; SOU); Hypocholesterolemic (f12; JAF49:5156; RA2); Hypoglycemic (f; JAF49:5156); Hypotensive (f; DAV; RA2); Hypotriglyceridemic (f12; RA2); Trypsin-Inhibitor (1; X16635550); Vermifuge (f; EGG).

**Indications:**

Angina (f; EGG); Atherosclerosis (f; RA2); Cancer (f; DLZ); Circulosis (f; EGG; RA2); Diabetes (f; DAV; JAF49:5156; RA2; SOU); Enterosis (f; RA2); Fever (f; DLZ; SOU); Gastrosis (f; RA2); High Blood Pressure (f; DAV; RA2); High Cholesterol (f12; EGG; JAF49:5156; RA2); High Triglycerides (f12; RA2); Inflammation (f1; EGG; MPB; JAF49:5156; RAI; RA2; X15124085); Otoris (f; EGG; RA2); Pain (f; RA2); Parasites (f; RA2); Tonsilosis (f; EGG; RA2); Worms (f; EGG).

**Dosages:**

FNFF = ! Fruit eaten, much like bell peppers, cooked like zucchini, pickled, raw, or stuffed with cheese, fish, or meat, then baked; leaves and tender shoots also eaten (FAC; RA2). Leaves poulticed onto tumors (DLZ); ¼–½ cup fruit juice 2×/day (RA2); ¼ cup fruit juice 2×/day for high blood pressure and inflammation (RA2); 1–2 g capsules 2×/day for atherosclerosis, balance blood sugar, digestion, and as diuretic (RA2).

- Peruvians consider analgesic, antiinflammatory, diuretic, and hypoglycemic, using for angina, arteriosclerosis, circulatory problems, diabetes, earaches, gastrointestinal disorders, high blood pressure, high cholesterol, intestinal parasites, and tonsilitis (RA2).
- Peruvians boil the fruit a/o leaves in olive oil and apply topically as an analgesic and antiinflammatory (RA2).

- Peruvians boil the fruit in milk, using as a gargle for tonsillitis (RA2).
- Peruvians consider the leaf decoction hypoglycemic, using for diabetes (RA2).
- Peruvians take the fruit juice a/o tea for atherosclerosis, circulatory problems, diabetes, high blood pressure, tonsillitis, and as a diuretic (RA2).
- Peruvians take 1 g dry crushed seed for intestinal parasites (RA2).
- Peruvians use seeds a/o fruit for gastrosis (RA2).
- Peruvians use the roots to clean teeth (DLZ; RA2).

**Downsides:**

Not covered (AHP; KOM; PH2). No drug interactions, contraindications or side effects reported (RA2). As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

In a double-blind placebo study using placebo, or 4 or 6 (300 mg) fruit juice capsules/day for 1 year, 82% of the 60 patients lowered their LDL cholesterol by 18.3% (RA2). In several other similar studies, patients achieved similar results in just 10–21 days, taking 100 cc fruit juice or 2 (300 mg) dehydrated fruit juice capsules/day, lowering total cholesterol up to 21.51% (RA2).

**PIRIPIRI (*Cyperus articulatus* L.) ++****CYPERACEAE****Synonyms:**

*Chlorocyperus articulatus* Rikli.; *Cyperus corymbosus* Rottb.; *C. diphyllus* Retz.; *C. niloticus* Forssk.; *C. nodosus* Humb. & Bonpl. ex Willd.; *C. subnodosus* Nees & Meyen; fide (RA2; USN).

**Notes:**

Thank goodness for scientific names. Of all the common names offered I picked piripiri (“del vibora”) because that’s the name used in my Amazon haunts, not selecting others such as “enea,” “hadsrow,” “junco,” “junco bravo,” or “sontul.” In India it is called “guinea rush.” Lacaze and Alexiades (1995) note that each indigenous group in Madre de Dios has its own select choices of “piripiris,” one for good luck, one for farming, one for fishing, one for health, one for happiness, one for hunting, and one for love. They called it *Cyperus* sp. (MD2) and it’s more superstition to us gringos than medicine. Most species of *Cyperus* in Peru are called “piripiri.” Strangely they did not mention the contraceptive concept which seems universal in Loreto, if not Madre de Dios.

Some consider *C. elongatus* a synonym. Taxonomy difficult at best.

**Common Names:**

Adrue (RA2); Andek (RA2); Chintul (RA2; USN); Guinea Rush (RA2); Hadrue (RA2); Huaste (RA2); Ibenki (Matsigenka; MD2; RA2); Ibenkiki (Huachipaeri; MD2; RA2); Jointed Flat Sedge (Eng.; RA2; USN); Kajiji (RA2); Kamaleji (Piro; Yine; MD2; RA2); Karihi (RA2); Mandassi (RA2); Masho Huaste (RA2); Nihue Huaste (RA2); Nuni (RA2); Piripiri (Sp.; CR2; USN); Piripiri de Sangre (RA2); Piripiri de Víbora (Peru; Sp.; DAV); Piriprioca (RA2); Priprioca (RA2); Savane Tremblante (RA2); Shakó (Amahuaca; MD2; RA2); Waste (Shipibo/Conibo; MD2; RA2); Yahuar Piripiri (RA2); Zacoo (RA2).

**Activities:**

Abortifacient (f; DAV; RA2); Anthelmintic (f; WBB); Anticonvulsant (1; RA2; X11390127); Antiemetic (1; PH2; RA2); Antifeedant (1; X10861974); Antimalarial (f1; RA2); Antioxidant (1; RA2); Aphrodisiac (f; UPW); Bactericide (1; RA2); Candidicide (1; RA2; X15707770);

Carminative (f1; PH2; RA2); Contraceptive (f1; RA2); Demulcent (f; RA2); Digestive (1; RA2); Fungicide (1; RA2); Hemostat (f; DAV; RA2); Insectifuge (1; UPW; X10861974); Nervine (f; RA2); NO-Inhibitor (1; RA2); Prostaglandin-Synthetase-Inhibitor (1; RA2); Sedative (f1; PH2; RA2; X11163936); Stimulant (f; SKJ); Stomachic (f; RA2); Tonic (f; SKJ); Vermifuge (f1; RA2; UPW); Vulnerary (f; DAV; RA2).

### Indications:

Alopecia (f; RA2); Amenorrhea (f; PH2); Bacteria (1; RA2); Bites (f; DAV); Bleeding (f; DAV; RA2); Cancer, throat (f; RA2); *Candida* (1; RA2; X15707770); Childbirth (f; RA2); Colic (f; WBB); Conjunctivitis (f; RA2); Convulsions (1; RA2; X11390127); Coughs (f; JFM; RA2; UPW); Cramps (f; RA2); Diarrhea (f; JFM); Dysentery (f; RA2); Dysmenorrhea (f; PH2; RA2); Dyspepsia (f1; PH2; RA2; WOI); Dysuria (f; RA2); Edema (f; UPW); Enterosis (f; JFM; RA2); Epigastrosis (f; PH2); Epilepsy (f1; RA2); Fever (f; DAV; JFM); Flu (f; DAV); Fright (f; DAV); Fungus (1; RA2); Gas (f1; PH2; RA2); Gastrosis (f; RA2); Headache (f; PH2; RA2); Hematemesis (f; PH2); Hematuria (f; PH2); Impotence (f; UPW); Infection (f1; RA2); Insomnia (f1; PH2; RA2; X11163936); Leukorrhea (f; PH2); Malaria (f1; RA2; UPW); Mastosis (f; PH2; RA2); Migraine (f; UPW); Morning Sickness (f; JFM; RA2); Mycosis (1; RA2); Nausea (f1; PH2; RA2); Neurosis (f; RA2); Ophthalmia (f; RA2); Pain (f; JFM; PH2; RA2); PMS (f; PH2); *Pseudomonas* (1; RA2); Respirosis (f; UPW); Rheumatism (f; UPW); Snake Bite (f; DAV; MD2; RA2); Snoring (f; DAV); Spasms (f; RA2); *Staphylococcus* (1; RA2); Stomachache (f; RA2); Stress (f; RA2); Swelling (f; UPW); Toothache (f; RA2; WBB); Vaginitis (f1; RA2); Worms (f1; RA2; UPW; WBB); Wounds (f; DAV; RA2); Yeast (1; RA2); Yellow Fever (f; JFM).

### Dosages:

FNFF = ! 6–9 g root (PH2); 1–2 g capsule 2×/day (RA2); 1 cup rhizome tea 2×/day (RA2); 2 ml fluid extract 2–3×/day (RA2).

- Brazilians use for dysentery, fever, and headache (RA2).
- Ese'eja Indians use it for diarrhea and dysentery (RA2).
- Madre de Dios Peruvians believe the plant good for warding off snakes and bathe their children with piri-piri to prevent illness (MD2).
- Native Americans stuff crushed stems in their nose to alleviate snoring (DAV). I'll wager Mrs. Duke wishes she had some when I snore.
- Peruvians chew the pulp (considered abortifacient), swallowing the juice and poultice the cud onto snake bite (DAV).
- Peruvians consider the herb abortifacient, anticonvulsant, antiepileptic, antivenom, carminative, contraceptive, hemostat, nervine, stomachic, tonic, and vulnerary, using for baldness, childbirth, conjunctivitis, convulsions, coughs, diarrhea, dysentery, dyspepsia, epilepsy, fever, flu, GI disorders, hemorrhage, mental and nervous disorders, nausea, rheumatic pain, snake bite, spasms, stress, throat cancer, tumors, vomiting, and wounds (RA2).
- Secoya add ground rhizome to water for fever, flu, fright, and nervousness (SAR; RA2).
- Shipibo-Conibo grind fresh rhizomes and use the juice for a nerve tonic in stress, nervous and mental disorders (including epilepsy), and for digestive and GI disorders, to facilitate childbirth or to induce an abortion, as a contraceptive, and for throat cancer; used as hair tonic to treat or prevent baldness, and applied to wounds and snake bite (RA2).

### Downsides:

Not covered (AHP). "Health risks or side effects following the proper administration of designated therapeutic dosages are not known" (PH2). As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**Extracts:**

EO active against *Candida albicans*; antimicrobial compounds included 1,8-cineole, geranial, germacrene-D, limonene, linalool, and menthol (X15707770). Methanolic rhizome extract anticonvulsant in strychnine-induced seizures (1,000 mg/kg i.p. mouse) but exhibited no or moderate effect for picrotoxin- or bicuculline-induced seizures (X11390127).

**SACHA PIRI-PIRI (*Cyperus odoratus* L.) ++****CYPERACEAE****Illustrations:**

p 251 (MD2)

**Synonyms:**

*Cyperus engelmannii* Steud.; *C. ferax* Rich.; *C. luzulae* (L.) Metz; *Torulium confertum* Desv. ex Ham.; *T. ferax* (Rich.) Urb.; *T. odoratum* (L.) S. S. Hooper; fide (EGG; MD2; USN).

**Common Names:**

Amen Shani (Shipibo/Conibo; MD2); Calingale (USN); Capim de Cheiro (Brazil; EGG); Khuchi Muchu (Bol.; Callawaya; DLZ); Papagallo Piripiri (Peru; EGG); Piripiri (Peru; DAV); Qhora Wanarpu (Bol.; Que.; DLZ); Sacha Piri-Piri (Peru; MD2); Sachichi (Ese'ēja; MD2); Shako (Amahuaca; MD2).

**Activities:**

Analgesic (f; MD2); Antidote (f; EGG); Antimalarial (f; JTR); Antiseptic (f; MD2); Contraceptive (f; EGG); Diuretic (f; JTR); Febrifuge (f; EGG); Parturient (f; DAV); Stomachic (f; JTR); Sudorific (f; EGG); Tonic (f; EGG).

**Indications:**

Childbirth (f; DAV); Diarrhea (f; DAV; EGG); Fever (f; EGG); Gastrosis (f; DAV; EGG); Infection (f; MD2); Malaria (f; JTR); Pain (f; MD2); Respirosis (f; EGG); Stings (f; MD2); Stomachache (f; DAV; EGG).

**Dosages:**

FNFF = ?

- Chami take cold water macerate for diarrhea and stomachache (DAV).
- Cubans consider the rhizome antimalarial, diuretic, stomachic, and sudorific (JTR).
- Madre de Dios Peruvians apply heated mashed bulbs to ray stings and infected wounds (MD2).
- Peruvians consider the rhizome decoction antidotal, febrifugal, respiratory, sudorific, and tonic (EGG).
- Tikuna use crushed fruits to induce labor (DAV).

**Downsides:**

Bolivians consider the plant toxic to grazing cattle (DLZ).



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## HOOPWOOD (*Dalbergia ecastaphyllum* (L.) Taub.) +

FABACEAE

### Illustrations:

p 261 (AUS)

### Synonyms:

Possibly *Ecastaphyllum brownei* Pers.; *E. ecastaphyllum* (L.) Britton; *Hedysarum ecastaphyllum* L.

### Notes:

Often found near coast or mangroves, forming impenetrable thickets.

### Common Names:

Adzama (Ga; Ghana; UPW); Akarerowi (Car.; Sur.; AUS); Bejuco de Peseta (Dor.; AUS); Bejuco Serná (Cuba; AUS); Bejuco Serná Blanco (Cuba; JTR); Bugi (Brazil; Por.; USN); Bu Lokab (Diola; Sen.; UPW); Chaperno (Bel.; BNA); Dogwood (Bel.; BNA); Hoop Wood (Bar.; AUS); Liane à Barriques (Guad.; Mart.; AUS; AVP); Liane á Clous (Haiti; AUS; AVP); Liane Borde de Mer (Guad.; Mart.; AVP); Mangamtem (Gui. Bissau; UPW); Mangle Médaille (Fr.; Sen.; UPW); Maray Maray (Dor.; Pr.; Ven.; AUS; AVP; JTR); Marmeleiro-da-Praia (Brazil; Por.; USN); Palo de Pollo (Dor.; Pr.; AUS; AVP; JTR); Péndola (Cuba; AUS; JTR); Popian (Por.; São Tomé; UPW); Sakai (Sierra Leone; UPW); Titi (Bah.; AUS); Z'herbe à Clous (Haiti; AUS). (Nscn).

### Activities:

Cathartic (f; JTR); Diuretic (f; JTR); Emetic (f; JTR); Vermifuge (f; JTR).

### Indications:

Anemia (f; UPW); Constipation (f; JTR); Debility (f; UPW); Oliguria (f; JTR); Worms (f; JTR).

### Dosages:

FNFF = X.

- Senegalese use leaves in baths and steams for anemia and debility (UPW).

### Downsides:

Green exudates considered poisonous (JTR).

## BARREL VINE (*Dalbergia monetaria* L. f.) +

FABACEAE

### Synonyms:

*Ecastaphyllum monetaria* (L. f.) Pers.



**Notes:**

Shares some common names with *D. ecastaphyllum*.

**Common Names:**

Cipo Tucunaré (Brazil; RAR); Cushqui Huasca (Peru; Sp.; LOR); Gochaño (Peru; RAR; SOU); Jacarandá do Pará (Brazil; RAR); Karukwiakat (Palikur; GMJ); Liane à Barrique (Guad.; Mart.; AVP); Liane à Clous (Haiti; AHL); Meradiu (Peru; RAR); Palo de Brasilete (Pr.; AVP); Palo Santo (Peru; EGG; RAR); Pau Violeta (Brazil; RAR); Péndola (Cuba; JTR); Quiebracuña (Bol.; DLZ); Tacomosi (Bol.; DLZ); Tietie (Bel.; BNA); Veronica do Igapo (Por.; GMJ); Yateu (Wayãpi; GMJ). (Nscn).

**Activities:**

Antacid (1; X10454052); Antihistaminic (1; X10454052); Antiulcer (f1; X10454052); Cardiotonic (f; DLZ); CSF-Inducer (1; X9810271); Gastroprotective (f1; X10454052); Immunomodulator (1; X9810271); Larvicide (1; GMJ); Prostaglandinogenic (1; X10454052); Tonic (f; EGG; RAR).

**Indications:**

Diarrhea (f; GMJ); Gastrosis (f1; X10454052); Heart (f; DLZ); Heartburn (1; X10454052); Pulmonosis (f; RAR); Respirosis (f; EGG; RAR); Ulcers (f1; X10454052).

**Dosages:**

FNFF = ? Seeds of some species eaten (FAC).

**Extracts:**

Aqueous extract showed significant antiulcerogenic activity, reducing gastric acid secretion, likely by increasing PGE2 synthesis and antagonism of H2 histamine and beta-adrenergic receptors (X10454052).

## JIMSON WEED (*Datura stramonium* L.) X

### SOLANACEAE

**Illustrations:**

fig 157 (AH366); p 426 (CR2); p 144 (TRA); pl 684A (KAB)

**Synonyms:**

*Datura inermis* Juss. ex Jacq.; *D. stramonium* var. *chalybea* W. D. J. Koch; *D. stramonium* var. *tatula* (L.) Torr.; *D. tatula* L.; fide (USN).

**Notes:**

Since the USDA Nomenclature Database (USN) lists Mexico as one probable home for this plant of uncertain derivation, I include it in my Latin American medicinals. According to Busia & Heckels (HG69:40), the scientific name *Datura* comes from early Sanskrit “dustura” or “dahatura” meaning “divine inebriation.”

**Common Names:**

Angel's Trumpet (Eng.; NPM); Belladonna de Pobre (Dor.; VOD); Benghilik (Tur.; AVP); Bilidattura (Kan.; KAB); Bolandarita (Rom.; KAB); Buenas Tardes (Dor.; AHL); Bulunia (Pol.; AVP); Burladora (Mex.; Sp.; JFM; JTR); Cajon del Diablo (Bol.; DLZ); Chamico (Aym.; Cuba; Dor.; Lor.; Peru; Que.; AHL; DAV; DLZ; JTR); Chamillcu (Aym.; DLZ); Chamisco (Dor.; AHL); Clarín (Cuba; JTR); Cocombre Zombie (Haiti; AHL); Cojón del Diablo (Peru; EGG; JLH; RAR); Concombre (Haiti; VOD); Concombre Zombie (Haiti; AHL; VOD); Cornescopia (Mex.; JTR); Cornicopio (Dor.; VOD); Daora (Arab.; AVP); Datira (Haiti;

TRA); Datura (Arab.; Fr.; BOU); Datura Manzana (Sp.; USN); Datura Stramoine (Fr.; USN); Devil's Apple (Eng.; BOU); Devil's Trumpet (Eng.; BOU); Devil's Weed (Eng.; HG69:40); Devil's Work (Eng.; HG69:40); Dhatura (Urdu; KAB); Dhaturu (Nepal; Tamang; NPM); Djahnama (Arab.; BOU); Djouza Matel (Arab.; BOU); Doorappel (Dutch; KAB); Dornapfel (Ger.; KAB); Durmana (Rus.; AVP; KAB); Durmnischnichnick (Rus.; AVP); Dutturamu (Tel.; KAB); Emanamam (Tam.; KAB); Endormie (Fr.; BOU); Estramonio (Brazil; Peru; Por.; Sp.; EGG; MPB; USN); Fiquiera do Diabolo (Por.; MPB; USN); Fiquiera do Inferno (Brazil; KAB; MPB); Floripondio (Dor.; AHL); Floripondio Blanco (Pan.; JTR); Galurt (Den.; AVP); Habb el Foua (Arab.; BOU); Herbe aux Sorcieres (Fr.; BOU); Herbe des Taupes (Fr.; USN); Higuera Loca (Mex.; JTR); Hô Tornicopio (Dor.; VOD); Hô Yen Hôa (China; AVP); iLogi (Zulu; KAB); Imbutome Blanco (It.; KAB); Indormia (It.; USN); Jamaica Thorn Apple (Eng.; NPM); Jamestown Weed (Eng.; HG69:40); Janzelmathil (Arab.; KAB); Jimsonweed (Eng.; CR2; NPM); Jimson Weed (Eng.; Scn.; AH2); Kachola (Afg.; KAB); Kalo Dhaturu (Nepal; NPM); Konkonm Zombi (Creole; Haiti; VOD); Mad Apple (Eng.; HG69:40); Mang Otu (Tur.; EB54:155); Maszlag (Hun.; KAB); Mata Zombando (Brazil; MPB); Mdak (Tibet; NPM); Messekra (Arab.; BOU); Moonflower (Eng.; USN); Mphufi (Suto; KAB); Nanulah (Iran; KAB); Nefir (Arab.; BOU); Ñunque (Ven.; JTR); Pigaible (Den.; KAB); Piggeble (Nor.; KAB); Pomme du Diable (Fr.; BOU); Pomme Épineuse (Fr.; Haiti; AHL; BOU; VOD); Pomme Epineux (Fr.; USN); Pomme Poison (Haiti; AHL; VOD); Pomo Spinoso (It.; AVP); Psinki (Pol.; KAB); Purple Thornapple (Eng.; USN); Quilla Sacha (Peru; EGG; RAR); Rda-Rdu-Ra (Tibet; NPM); Santas Loca (Mex.; JTR); Semm el Far (Arab.; BOU); Seto Dhaturu (Nepal; NPM); Shedjret el Janna (Arab.; BOU); Shedjret el Jemel (Arab.; BOU); Spikkcluba (Swe.; AVP; KAB); Stechapfel (Ger.; AVP; USN); Stinkblaren (S. Afr.; KAB); Stinkweed (Eng.; NPM); Stramoine (Fr.; BOU; TRA); Stramonio Comun (It.; USN); Stramonium (Eng.; Ocn.; AH2); Strychnos Manikos (Greek; KAB); Tabourzigt (Ber.; BOU); Tapa (Sp.; USN); Tatule (Tur.; KAB); Tatura (Arab.; BOU); Thorn Apple (Eng.; Ocn.; AH2; BOU; JTR; NPM; USN); Tidilla (Ber.; BOU); Tlaplatl (Mex.; KAB); Tonco Tonco (Peru; EGG; RAR); Tondera (Pol.; AVP); Trombeta (Brazil; MPB); Trompetero (Dor.; AHL; VOD); Trompetillo (Mex.; JTR); Yerba Hediondo (Mex.; JTR); Zabumba (Brazil; MPB).

### Activities:

Amnesigenic (f1; VOD); Analgesic (1; CRC; JFM; MPB; ZUL); Anesthetic (f1; BOU; CRC; VAG); Antiasthmatic (f; CRC); Anticholinergic (1; CRC; PH2; ZUL; X15064204; X17574113); Anticholinesterase (1; WBB); Antigalactic (f; ZUL); Antihistaminic (1; ZUL); Antiinflammatory (1; ZUL); Antiparkinsonian (f; CRC); Antiseptic (f1; DAV; ZUL); Antisialagogue (1; CRC; TRA; VAG); Antispasmodic (f1; BOU; JFM; TRA; ZUL); Aphrodisiac (f; BOU; KAB; VAG); Bronchoconstrictor (1; TRA); Canicide (f; NPM); CNS-Sedative (1; TRA; VAG); CNS-Stimulant (1; TRA; VAG); Febrifuge (f; KAB); Fungicide (1; ZUL); Hallucinogenic (1; JFM; PH2; VAG); Hypnotic (f; HHB; ZUL); Mydriatic (f; CRC); Narcotic (1; CRC; ZUL); Nervine (f; HHB); Parasympatholytic (1; PH2; TRA); Poison (1; CRC; X17574113); Sedative (f1; BOU; KAB; VOD; ZUL); Vulnerary (f; TRA).

### Indications:

Abscesses (1; CRC; WBB); Adenopathy (f; WBB); Alopecia (f; CRC; NPM; WBB); Anasarca (f; CRC); Aphasia (f; CRC); Apoplexy (f; CRC); Arthrosis (1; HHB; WBB); Asthma (f; BOU; CRC; EGG; TRA; VOD; WBB; ZUL); Ataxia (f; CRC); Boils (f; DEM; NPM; WBB; ZUL); Biliousness (f; KAB); Bradycardiac (f; HG69:40); Bronchosis (1; CRC; TRA; WBB); Bruises (f; WBB; ZUL); Burns (1; CRC; WBB); Cancer (f; CRC); Cancer, breast (f; CRC; JLH); Carbuncles (f; KAB); Carcinoma (f; JLH); Cardiopathy (f; HHB); Caries (f; NPM); Catalepsy (f; CRC); Catarrh (f; PH2); Childbirth (1; CRC; JFM); Chorea (f; CRC); Colic (f; WBB); Convulsions (f; PHR; PH2; WBB); Coughs (f; BOU; HHB; PHR; ZIM); Cramps (f1; BOU; CRC; JFM; TRA; WBB; ZUL); Cystosis (f; CRC; WBB); Dandruff (f;

NPM; WBB); Delirium (f; CRC; WBB); Dementia (f; AHL); Dermatitis (f; CRC; DAV; EGG); Diaphragmosis (f; CRC); Diarrhea (f; WBB); Dyspnea (f1; PH2; TRA); Dysuria (f; CRC; ZIM); Earache (f; CRC; EGG; NPM); Ecstasy (f; CRC); Emphysema (1; HHB); Enteralgia (f; ZIM); Enuresis (f; CRC); Epilepsy (f; CRC; HHB; PH2; VOD; WBB); Erotomania (f; CRC); Esophagosis (f; CRC); Felon (f; JLH); Fever (f; DEM; KAB); Fistula (f; CRC); Fits (f; WBB; ZUL); Flu (f; PHR; PH2); Fracture (f; VAG); Fungus (1; ZUL); Gas (f; CRC); Goiter (f; ZIM); Gout (1; WBB); Headache (f1; BOU; NPM; VAG; WBB; ZUL); Hemorrhoids (f; AHL; DEM; JFM; WBB); Hiccups (f; CRC); Hydrophobia (f; CRC); Hyperacidity (f; CRC; WBB); Hysteria (f; CRC; DLZ; VAG; ZUL); Impotence (f; BOU; KAB; VAG); Induration (f; CRC; JLH); Infection (f1; DAV; EGG; VAG; ZUL); Inflammation (f1; DEM; RAR; WBB; ZUL); Influenza (f; CRC); Ingrown Toenails (f; KAB); Insanity (f; AHL); Insomnia (f1; BOU; KAB; VAG; VOD; ZUL); Itch (f; VOD); Laryngitis (f; BOU; HHB); Lochia (f; CRC); Locomotor Ataxia (f; CRC); Lumbago (f; VOD; WBB); Madness (f; LEL); Malaria (f; KAB); Mania (f; CRC; LEL); Mastosis (f; JLH); Melancholy (f; LEL); Meningosis (f; CRC); Motion Sickness (1; VAG); Nausea (f; VOD); Nervousness (f; VOD); Neuralgia (f; CRC; JFM; WBB); Night Sweats (f; CRC); Nymphomania (f; CRC; HHB; VOD); Odontosis (f; NPM); Ophthalmia (f; CRC); Otitis (1; ZUL); Pain (f1; BOU; CRC; JFM; MPB; PH2; VAG; WBB; ZUL); Paralysis (f; CRC); Parasites (f; WBB); Parkinson's (f1; CRC; HHB; VOD; WBB); Pertussis (f; PHR); Phthisis (f; HHB); Pneumonia (f; DEM); Prolapse (f; CRC; JFM); Psychosis (f; CRC); Radiculitis (f; CRC); Respirosis (f; VOD; ZUL); Rheumatism (f1; AHL; CRC; JFM; PH2; VOD; WBB); Rhinosis (f; KAB); Scarletina (f; CRC); Sciatica (f; AHL; VOD; WBB); Scirrhus (f; JLH); Scrofula (f; ZUL); Sores (f; NPM; RAR; WBB; ZUL); Sore Throat (f; CRC; DEM; JFM); Spasms (f; BOU; CRC); Sprains (f; VAG); Stammering (f; CRC); Stenocardia (f; CRC); Strabismus (f; CRC); Sunstroke (f; CRC); Swelling (f; CRC; ZUL); Syphilis (f; HHB); Tetanus (f; CRC; HHB); Thirst (f; CRC); Toothache (f; KAB); Tremors (f; CRC); Trismus (f; CRC); Tuberculosis (f; HHB); Tumors (1; JFM); Typhus (1; CRC; ZUL); Ulcers (1; JFM); Uterosis (f; JFM); Vaginitis (f; DAV; EGG); VD (f; HHB; ZIM); Vertigo (1; FNF; VOD); Warts (f; JLH); Whitlow (f; ZUL); Wounds (f; DEM; TRA; WBB; ZUL).

### Dosages:

FNFF = X. 50 mg seed (PH2); 50–100 mg powdered leaf 1–3×/day (PH2); leaf tincture for asthma, laryngitis, and spasmodic coughs (BOU).

- Bolivians use the floral infusion for childbirth fever, delirium tremens, and hysteria (DLZ).
- Bulgarians suggest Asmatin, Asmatol, and Datura cigarettes for bronchial asthma (TRA).
- Costa Ricans gargle leaf infusion for sore throat; crushed leaves applied on cancers and sores (JFM).
- Cubans inhale smoke for asthma (JTR).
- Cubans use crushed leaf poultice or decoction on hemorrhoids (JFM; JTR).
- Haitians ingest leaf diffusion for itch and pruritus (VOD).
- Haitians use the leaves or seeds for asthma, dementia, dermatosis, epilepsy, hemorrhoids, rheumatism, and sciatica (AHL).
- Indians apply warmed leaves to the breast to reduce lactation and to firm the breast (ZUL).
- Mexicans use seed tincture for headache, neuralgia, and rheumatism (JFM).
- Nepalese use flower juice as eardrops for earache (NPM).
- Nepalese use pounded leaves with marijuana and *Picrorhiza* for headache (NPM).
- Peruvians and Venezuelans poultice leaves on tumors (JLH), express juice for earache (EGG).

- Tramileños suggest inhaling smoke of dry flowers or leaves for asthmatic crises and dyspnea (TRA).
- Trinidadans poultice leaves on abdomen for prolapsed uterus (JFM).

**Downsides:**

Not covered AHP. Do not take (JAD). Commission E reports leaf and seed not permitted for oral use (KOM). Contains toxic belladonna alkaloids (AEHD). Contraindicated in acute pulmonary edema, glaucoma, paralytic ileus, prostatosis, pyloric stenosis, tachycardic arrhythmia (PHR). High doses lead to central excitation, compulsive chatter, delirium, hallucination, mania, and restlessness, often followed by exhaustion, lethargy, and/or sleep (CRC; PH2). Toxic, consuming any part can cause severe anticholinergic reaction and possibly coma (X17574113). As of July 2007, the FDA Poisonous Plant Database listed 509 titles alluding to toxicity of this species.

**Extracts:**

Containing atropine and other anticholinergic compounds, jimsonweed is unfortunately used recreationally for its central anticholinergic effects (simply by boiling the crushed seeds). With rapid onset of effects, the extract may be useful in organophosphate poisoning (100 seeds contain approximately 6 mg of atropine). Male rats were given 7.5 mg/kg ipr prior to dichlorvos; pretreatment with the extract significantly increases survival following severe dichlorvos exposure (X15064204).

## CUBE (*Deguelia utilis* (A. C. Sm.) A. M. G. Azevedo) +

### FABACEAE

**Synonyms:**

*Derris nicou* (Aubl.) Macbride; *D. utilis* (A. C. Sm.) Ducke; *Lonchocarpus floribundus* (Benth.) Willd.; *L. nicou* auct.; *L. nicou* var. *utilis* (A. C. Sm.) F. J. Herm.; *L. utilis* A. C. Sm. (basonym); *Robinia nicou* Aubl.; *R. scandens* Willd.; fide (USN).

**Common Names:**

A (Tikuna; SAR); Barbasco (Eng.; Peru; Sp.; LEG; LOR; MDD; USN); Barbasco del Monte (Sp.; SOU); Barbasco Legitimo (Sp.; SOU); Barbasco Ordinario (Sp.; SOU); Barbasco Trueno (Col.; SAR); Conapi (Ai.; Sa.; RAR); Conyapi (Sp.; SOU); Cube (Eng.; Peru; Sp.; LEG; LOR; USN); Cube Barbasco (Sp.; SOU); Cube de Almidon (Sp.; SOU); Cube Rume Barbasco (Ai.; Sa.; RAR); Cube Rumu (Ai.; Sa.; RAR); Facheiro (Por.; Brazil; RAR); Haxa (Amahuaca; RAR); Heirri (Guy.; RAR); Hoyaeo (Siona; SAR); Huasca Barbasco (Ai.; Sa.; SOU); Ikun Maxune (Palikur; GMJ); Inekou (Guy.; RAR); Kumataime (Wayana; GMJ); Kumu (Ai.; Sa.; RAR; SOU); Loya Pano (Andoke; SAR); Marax (Cashibo; Sa.; SOU); Mats (Ai.; Sa.; RAR); Meku Muyee (Saramaka; GMJ); Nicou (Fr.; Guy.; USN); Nivree Coton (Creole; Guy.; GMJ); Nivree Femelle (Creole; Guy.; GMJ); Olla Vieja (Sp.; RAR); Onman (Ocaina; SOU); Pacai (Ai.; Sa.; SOU); Pau de Botoi (Brazil; RAR); Poano (Andoke; SAR); Real Hiaree (Guy.; RAR); Rotenone (Eng.; Peru; Sp.; LOR; MDD); Sacha Barbasco (Sa.; SOU); Timbo (Brazil; Sa.; LEG; SAR; USN); Timbo Macquinho (Brazil; RAR); Timore (Candoshi; Sa.; SOU); Timu (Cocama; SOU); Timum (Aguaruna; Sa.; SOU); White Haiari (Eng.; LEG); Xaca (Cashibo; RAR); Yumanaza (Ai.; Sa.; SOU).

**Activities:**

Acaricide (1; FNF); Anthelmintic (f; RAR); Anticancer (1; FNF); Atticide (1; DAV); Carcinogenic (1; FNF); Curare (1; DAV); Fungicide (1; FNF); Hypotensive (1; FNF; HDN); Insecticide (1; LEG); Pediculicide (1; FNF); Piscicide (1; LEG); Toxic (f; RAR); Vasodilator (1; FNF); Vermifuge (f; RAR).

**Indications:**

Cancer (1; FNF); Cardiopathy (1; FNF; HDN); Fungus (1; FNF); Herpes (1; FNF; HDN); High Blood Pressure (1; FNF; HDN); Infection (1; FNF); Mycosis (1; FNF); Parasites (1; FNF); Pediculosis (1; FNF); Scabies (1; FNF); Viruses (1; FNF; HDN); Worms (f; RAR).

**Dosages:**

FNFF = ?

- Brazilians use *L. urucu* to kill leaf cutters (SAR).
- Ketchwa and Shuar use in arrow poisons (SAR).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed 12 titles alluding to toxicity of this species (as *Lonchocarpus nicou*).

**Extracts:**

At 3 ppm eliminates piranha and their eggs in 15 min.

Rotenone: acaricide, allergenic, antitumor IC-50 = 0.8–4 nM, antifeedant, antifu, antiherpetic, antitumor ED50 = 0.01–0.3 µg/ml, antiviral, bradykinetic, bruchicide, carcinogenic, convulsant, dermatitogenic, ectoparasiticide, fungicide, hypotensive, insecticide, larvicide, NADH ubiquinone-oxidoreductase inhibitor IC-50 = 0.8–4 nM, neurotoxic, ornithine-decarboxylase-inhibitor, pediculicide, piscicide, protisticide, pulicide, respirostimulant, scabicide, vasodilator, MLD = 0.65 mg/kg ivn cat, MLD = 0.5–0.65 mg/kg ivn dog, MLD = 300 mg/kg orl dog, MLD = 4 mg/kg orl frg, MLD = 10 mg/kg ipr gpg, MLD = 100 mg/kg orl gpg, LD50 = 2.8 mg/kg ipr mus, MLD = 1 mg/kg ivn pgn, LD50 = 350 mg/kg orl uns, LD50 = 0.01 mg/kg scu mus, MLD = 1.6 mg/kg ipr rat, MLD = 0.2 mg/kg ivn rat, MLD = 60 mg/kg orl rat, LD50 = 100–300 mg/kg orl rat, LD50 = 132 mg/kg orl rat, MLD = 5 mg/kg ims rbt, MLD = 0.35 mg/kg ivn rbt, MLD = 20 mg/kg scu rbt, LDlo = 400 mg/kg uns (FNF).

**STRONGBACK (*Desmodium adscendens* (Sw.) DC.) ++****FABACEAE****Synonyms:**

*Desmodium ovalifolium* Guill. & Perr.; *Hedysarum adscendens* Sw. (basionym); *Meibomia adscendens* (Sw.) Kuntze; fide (USN).

**Common Names:**

Amor do-Campo (Por.; USN); Amorosoos (Peru; RAR); Amor Aeco (Dor.; AHL); Beggarlice (Eng.; IED); Boia Caa (Ma.; JFM); Bosuku (Congo; AVP); Burbur (Creole; IED); Carraficho Beço de Boi (Brazil; AVP); Carrapicho (Ma.; JFM); Carrapixo (Ma.; JFM); Chuchu Maiharina (Que.; SAR); Cousin (Guad.; Mart.; AVP); Cousin Trois Sous (Fr.; AHL); Dusenesh (Peru; SOU); Espinjo Branco (Ma.; JFM); Guacarillo (Ma.; JFM); Loaka (Congo; AVP); Lokanga (Congo; AVP); Margarita (Peru; RAR); Mozote (Ma.; JFM); Pash Pam (Bel.; BNA); Pega-Pega (Brazil; Sp.; AVP); Pistache Marron (Ma.; JFM); Retirante (Ma.; JFM); Salia Kuiva (Que.; SAR); Strongback (Bel.; Eng.; CR2; USN); Tick Clover (Eng.; Ocn.; AH2; USN); Tick Trefoil (Eng.; Scn.; AH2; USN); Trèfle Sauvage (Guad.; Mart.; AVP); Wild Groundnut (Ma.; JFM); Zarzabacoa Galana (Ma.; JFM). (American entries diacritically prepared).

**Activities:**

Analgesic (1; X8735451); Antiaggregant (f; IED); Antianaphylactic (1; X2434805; X6482479); Antiasthmatic (1; X2434805; X6482479); Antihistaminic (1; X2434805; X6482479); Antispasmodic (1; AAB; X2434805); Contraceptive (f; DAV; RAR); Lactagogue (f; DAV; SAR); Laxative (f; JFM); Sterilant (f; RAR).

**Indications:**

Adenopathy (f; IED); Arthrosis (f; AAB); Asthma (f1; AAB; X2434805; X3139272; X6482479; X7685635); Backache (f; AAB); Cachexia (f; JFM); Constipation (f; JFM); Convulsions (1; AAB; IED; JFM); Dermatoses (f; IED); Dyspepsia (f; IED); Dysuria (f; JFM); Headache (f; AAB); Impotence (f; AAB); Infection (f; DAV); Inflammation (f; IED); Malnutrition (f; JFM); Myalgia (f; AAB); Nephrosis (f; AAB); Pain (f1; AAB; X8735451); Rashes (f; IED); Sores (f; JFM); Spasms; (1; AAB; X2434805); Tuberculosis (f; IED); Vaginitis (f; DAV); VD (f; JFM); Wounds (f; JFM).

**Dosages:**

FNFF = ? Seeds of some species eaten (FAC). Crushed leaves with lime juice poulticed on wounds (JFM); 1–2 tsp dry leaf in 3 divided doses to prevent asthma (AAB); steep whole plant in rum for backache, take ¼ glass 3×/day (AAB).

- Ghanaians use as a treatment for asthma (X3139272; X6482479; X7685635).
- Rio Pastaza Indians wash the breasts with the tea to increase lactation (SAR).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

Ethanollic leaf extract induced hypothermia and had an analgesic effect in mice (X8735451). Crude extract an example of a high-affinity activator of calcium-dependent potassium channels and is the most potent known potassium channel opener (X7685635). Aqueous leaf extract may inhibit the release of free arachidonic acid (X2120518). Aqueous extract contains several compounds that can inhibit allergic airway smooth muscle contraction at multiple sites, including the synthesis and (or) activity of the bronchoconstrictor leukotrienes (X3139272). Hot water extract used in drinking water (guinea pigs) shows inhibition of histamine-induced ileal contraction is largely competitive and reduction of lung histamine content and spasmogens released anaphylactically, is dose-dependent (X2434805). Aqueous and ethanollic extracts reduced anaphylactic contractions, inhibited histamine-induced contractions, and reduce smooth muscle stimulating substances released from lung tissue (orl gpg) (X6482479).

**AMOR SECO (*Desmodium incanum* DC.) ++****FABACEAE****Synonyms:**

*Desmodium canum* Schinz & Thell.; *D. frutescens* Schindl.; *D. mauritianum* (Willd.) DC.; *D. supinum* DC.; *Hedysarum canum* J. F. Gmel.; *H. incanum* Sw.; *H. mauritianum* Willd.; *H. supinum* Sw.; *Meibomia cana* S. F. Blake; *M. mauritiana* (Willd.) Kuntze; *M. supina* Britton; fide (USN).

**Notes:**

The figure on p 155 (MD2) is not a *Desmodium*.

**Common Names:**

Amor de Campo (Brazil; USN); Amor Seco (Sp.; MD2); Bakuipakpak (Huachipaeri; MD2); Carrapicho-Beíço-de-Boi (Brazil; USN); Kaimi-Clover (Eng.; USN); Koshorinin (Shipibo/Conibo; MD2); Pechi Rao (Shipibo/Conibo; MD2); Pega Pega (Brazil; Sp.; MD2; USN); Tashna Shobi (Shipibo/Conibo; MD2); Waca Betonco Shobi (Shipibo/Conibo; MD2).

**Activities:**

Antiseptic (f; MD2); Cicatrizant (f; MD2); Contraceptive (f; MD2); Vulnerary (f; MD2).

**Indications:**

Infection (f; MD2); Ringworm (f; MD2); Wounds (f; MD2).

**Dosages:**

FNFF = ? Seeds of some species eaten (FAC)

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**Extracts:**

Contains cannabinoid-like compounds (X12943782).

**AMEBA BUSH (*Dicliptera unguiculata* Nees.) +****ACANTHACEAE****Illustrations:**

p 1 (MPG)

**Common Names:**

Ameba Bush (Cr.; Eng.; MPG); Olotillo (Cr.; MPG); Sornia (Cr.; MPG). (Nscn).

**Activities:**

Amebicide (f; MPG); Parasiticide (f; MPG).

**Indications:**

Amebiasis (f; MPG); Parasites (f; MPG).

**Dosages:**

FNFF = X

- Costa Ricans use decoction of 4 leaves in 1 glass water (or including roots) several times/day (MPG).

**DUMBCANE (*Dieffenbachia seguine* (Jacq.) Schott) X**

ARACEAE

**Illustrations:**

p 258 (CR2)

**Synonyms:**

*Arum seguine* Jacq.; *Caladium maculatum* G. Lodd.; *Dieffenbachia amoena* hort.; *D. baraquiniana* Verschaff. & Lem.; *D. exotica* hort.; *D. maculata* (G. Lodd.) G. Don; *D. picta* Schott; *D. picta* var. *baraquiniana* (Verschaff. & Lem.) Engl.

**Common Names:**

Aninga Para (Brazil; GMJ; MPB); Aninga Uba (Brazil; MPB); Apior (Cuna; IED); Apotocanum (Choco; IED); Aro Seguino (Sp.; USN); Bananeira d'Agua (Brazil; MPB); Cana-de-Imbe (Por.; USN) Cana Marona (Por.; GMJ); Caña Muda (Col.; Sp.; IED; USN); Canne à Gratter (Fr.; Haiti; AVP; USN); Canne Cochon (Creole; Guy.; GMJ); Canne Madere (Haiti; AVP); Canne Seguine (Creole; Guy.; GMJ); Comigo Ninguem Pode (Brazil; MPB); Cucaracho (Col.; IED); Donkin (Creole; Guy.; GMJ); Dumbcane (Eng.; CR2); Dumbplant (Eng.; USN); Hoja de Eva (Bol.; DLZ); Irup (Palikur; GMJ); Madere a Gratter (Haiti; AVP); Mata Puerco (Dor.; AVP); Mother in law plant (Eng.; USN); Oto de Lagarto (Pan.; IED); Pataquina (Peru; Sp.; LOR; MDD); Pataquiña (Peru; RAR); Pela Puerco (Dor.; AVP); Pulupululi (Wayãpi; GMJ); Rabano (Sp.; IED); Retamo Cimarron (Col.; IED); Salon Verde (Bol.; DLZ); Schweigrohrwurzel (Ger.; USN); Soquero (Culina; RAR).

**Activities:**

Analgesic (f; CRC); Aphrodisiac (f; CRC); Caustic (f; CRC); Contraceptive (f; CRC); Curare (f; AHL; CRC; JFM); Cyanogenic (f; CRC); Insecticide (f; CRC; JFM); Poison (f; CRC); Rodenticide (f; JFM); Sterilant (f; CRC; JFM; MPB); Vesicant (1; AHL).

**Indications:**

Angina (f; CRC; MPB); Bites (f; CRC); Burns (f; CRC); Cancer (f; CRC); Colds (f; IED); Corns (f; CRC); Coma (f; CRC); Dropsy (f; CRC; MPB); Dysmenorrhea (f; CRC); Edema (f; CRC; MPB); Frigidity (f; CRC); Gout (f; MPB); Impotence (f; CRC); Inflammation (f; CRC; MPB); Itch (f; MPB); *Leishmania* (f; GMJ); Pain (f; CRC); Parasites (f; DAV); Prurigo (f; CRC; MPB); Rheumatism (f; CRC); Snake Bite (f; JFM); Sores (f; GMJ); Stings (f; MPB); Swelling (f; CRC); Tumors (f; CRC); Ulcers (f; CRC); Varicosity (f; CRC); Warts (f; CRC; DLZ; JLH); Wounds (f; CRC); Yaw (f; CRC).



**Dosages:**

FNFF = X. Don't take (JAD).

- Brazilians gargle leaf decoctions for angina (MPB).
- Brazilians take root tincture for genital pruritus and gout (MPB).
- Tikuna use in curare (SAR).

**Downsides:**

“Acicular crystals of calcium oxalate, accompanied by a protein (enzyme) or asparagine, may cause severe burning in the mouth and throat. Swelling of the mouth may be severe enough to cause fatal choking. The sap, under some conditions, is irritant and vesicant. Contact with bruised plants seemed to be necessary for irritation. Panama natives to this day blame an indolent ulcer I suffered on the ankle on my walking through a patch of dumbcane that had recently been cut. On several occasions I applied fresh latex to my wrist with no problem” (CRC). As of July 2007, the FDA Poisonous Plant Database listed 102 titles alluding to toxicity of this species.

## AIR POTATO (*Dioscorea bulbifera* L.) +

### DIOSCOREACEAE

**Illustrations:**

fig 93 (DAV); p 71 (WOI)

**Synonyms:**

*Dioscorea crispata* Roxb.; *D. latifolia* Benth.; *D. pulchella* Roxb.; *D. sativa* Thunb. non L.; *D. tamnifolia* Salisb.; *D. versicolor* Buch.Ham ex Wall.; *Helmia bulbifera* Kunth.; fide (DEP; NPM; USN; WOI).

**Common Names:**

Abobo (Malaya; KAP); Aerial Yam (Eng.; Ocn.; AH2; UPW); Air Potato (Eng.; Scn.; AH2; FAC; UPW); Air Yam (Eng.; RAR); Banalu (Ben.; MPI; SKJ; WOI), Ban Tarul (Nepal; NPM); Barahi (Sanskrit; KAP); Batata de Aire (Ven.; AVP); Batata de Rama (Brazil; AVP); Bengo Nari (Satar; NPM); Bhayakur (Nepal; KAP; NPM); Bitter Yam (Eng.; Haw.; POR; USN); Bobo (Cuba; AVP); Bonda (Dor.; AVP); Bondanza (Sp.; AHL); Bonday (Dor.; AVP); Brotwursel (Ger.; KAP); Buk (Lepcha; NPM); Bulb-Bearing Yam (Eng.; DEP); Bulbil Yam (Eng.; UPW); Chedupaddu-Dumpa (Tel.; DEP; MPI; SKJ; WOI); Cheeky Yam (Aust.; POR; USN); Gaichu Alu (Ben.; WOI), Gathalu (Mar.; WOI); Gëmbolo (Java; IHB); Ghar Tyaur (Raute; NPM); Githa (Nepal; NPM); Gittha (Nepal; POR); Gittha Tarul (Nepal; POR); Goradu (Guj.; NAD); Heggenasu (Kan.; NAD; WOI); Hisaki (Newari; NPM); Hoei-Oepas (India; POR; USN); Hoi (Haw.; Ocn.; AH2; POR; USN); Huang Tu (China; TAN); Huang Yao (China; POR); Huang Yao Zi (Pin.; DAA); Huayra Papa (Peru; Sp.; LOR); Hubi Kapor (Malaya; IHB); Huwi (Sunda; IHB); Huwi Blichik (Sunda; IHB); Huwi Buwah (Sunda; IHB); Ignose Bulbifère (Fr.; POR; USN); Ignose des Bois (Guad.; AVP); Ignose Masoco (Haiti; AVP); Ignose Pousse en l’Air (Fr.; POR); Inhame de Angola (Brazil; AVP); Jada Bis (Nepal; POR); Jëbubug Basu (Java; IHB); Jëbubug Ęndog (Java; IHB); Kadu-U (Burma; KAP); Kai Vallikkodi (Tam.; KAP); Kamlo (Gurung; NPM); Kanthamul (Sunwar; NPM); Karanda (Mah.; Poona; DEP; NAD); Karinda (Bom.; Mah.; DEP; NAD); Karukaranda (Tam.; NAD); Karukarandi (Mah.; SKJ); Karukarinda (Mar.; MPI); Karukarundi (Mar.; WOI); Kashû Imo (Japan; TAN); Kathalu (Assam; DEP); Kattu-Kachil (Mal.; WOI); Katu Katsjil (Mal.; DEP); Kerukarinda (Dec.; DEP); Khashyo (Gurung; NPM); Khe (Limbu; NPM); Khoai Dái (Vn.; POR); Kisi (Gurung; NPM); Kodikilangu (Tam.; MPI; SKJ; WOI); Kondol (Sin.; KAP); Konfa Goradu (Mah.; NAD); Kukuralu (Ben.; SKJ; WOI); Kukur

Tarul (Nepal; NPM); Kurakanda (Chanda; DEP); Malakakayapendalamu (Tel.; WOI); Man (Thai; IHB); Manakund (Mar.; WOI); Man Khamin (Thai; IHB); Man Nok (Thai; IHB); Maruba Dokoro (Japan; TAN); Masoco (Haiti; AHL); Mēmali Hutan (Malaya; IHB); Monday (Wi.; AHL); Ñame de Gunda (Sp.; USN); Ñati Papa (Peru; Sp.; LOR; MDD); Niga Gashû (Japan; TAN); Nyame Bobo (Cr.; AVP); Nyame Congo (Ven.; AVP); Nyame de Mata (Ven.; AVP); Nyame Papa (Ven.; AVP); Otaheite Yam (Eng.; UPW); Pannukilangu (Tam.; WOI); Papa Caribe (Cr.; AVP); Papa Cholon (Peru; SOU); Papa del Aire (Cr.; AVP); Papa Voladora (Cr.; Sp.; AVP; POR; USN); Pas (Chepang; NPM); Paudhandel (Sin.; DEP); Phor (Danuwar; NPM); Pisha (San.; DEP); Pitalu (Hindi; SKJ; WOI); Pokok Ubi (Malaya; IHB); Potato Vine (Eng.; RAR); Potato Yam (Eng.; Ocn.; AH2; FAC; POR; UPW); Pousse en l'Air (Fr.; USN); Ratalu (Guj.; Hindi; Yunani; DEP; KAP; MPI; SKJ; TAN; WOI); Sakkisak (Raj.; NPM); Suarulu (Hindi; WOI); Tarul (Majhi; Tharu; NPM); Teme (Sherpa; NPM); Toca e Cae (Peru; RAR; SOU); Toleng (Semang; IHB); Top Yam (Eng.; UPW); Turkey Liver Yam (Eng.; UPW); Ubi Atas (Malaya; IHB; TAN); Ubi China (Malaya; IHB); Ubi Kastela (Malaya; IHB); Ubi Kēmili Hutan (Malaya; IHB); Van Tarul (Nepal; POR); Varahi (India; Sanskrit; AH2; OFF); Wan Phra Chim (Thai; POR); Wan Sam Phan Thueng (Thai; POR); Yam (Eng.; NAD); Zamin Kand (Hindi; KAP; NAD); Zamin Khand (Pun.; DEP); Zaminqand (Iran; KAP).

#### Activities:

Alexiteric (f; DAV); Alterative (f; KAB; KAP); Analgesic (1; TRA); Anorectic (1; KAP); Anthelmintic (f; KAB); Anticancer (1; X12230129; X15706925); Antidote (f; DAV); Antidote (food poisoning) (f; NPM); Antifeedant (1; MPI); Antiinflammatory (f; DAV); Antiseptic (f; NPM; WBB); Antitumor (f1; BPP25:1241; JLH; X12230129; X15706925); Antitumor Promoter (1; BPP25:1241); Aphrodisiac (f; KAB); Astringent (f; KAB); Bactericide (1; X16876211); Bitter (f1; NAD; KAB); Candidicide (f; WBB); Curare (1; HDN); Detoxicant (f; DAA); Diuretic (f; DAV; WBB); Expectorant (f; DAA; KAB); Febrifuge (f1; DAA; DEP; TRA); Hemolytic (1; WBB); Hemostat (f; DAV); Hepatotoxic (1; X15139116); Homocide (1; HDN); Hypoglycemic (1; HDN; TRA); Lactagogue (f; LMP); Lipogenic (f; KAB); Molluscicide (1; TRA; ZUL); Piscicide (1; HDN; WBB); Stomachic (f; KAB); Tonic (f; KAB).

#### Indications:

Abscesses (f; TRA); Ancylostomiasis (f; HDN); Anorexia (f; KAB); Arthrosis (f; UPW); Asthma (f; KAB); Bacteria (1; X16876211); Bilioussness (f; KAB); Bleeding (f; DAV); Boils (f; DAA; UPW; WBB); Bronchosis (f; KAB); Cancer (f1; BPP25:1241; DAV; HDN; JLH; KAB; KC2; X12230129; X15706925); Cancer, cervix (f1; BPP25:1241; DAA; JLH); Cancer, colon (1; BPP25:1241; DAA); Cancer, stomach (1; BPP25:1241; DAA); *Candida* (f; DAA; WBB); Cervicosis (f; JLH); Childbirth (f; HDN); Complexion (f; KAB); Conjunctivosis (f; DAA; HDN; UPW; WBB); Dermatitis (f; HDN); Diabetes (1; HDN; TRA); Diarrhea (f; DAA; WBB); Dysentery (f; DAV; KAP; MPI; NAD; WBB); Dyspepsia (f; KAB); Dystocia (f; HDN); Dysuria (f; KAB); Enterosis (f; DAA; KAB); Fever (f1; DAA; DAV; DEP; TRA); Food Poisoning (f; NPM); Fungus (f; HDN); Gastrosis (f; DAA); Goiter (f; DAA; KC2); Gonorrhoea (f; DAA); Hemorrhoids (f; KAB; KAP; SKJ; WBB); Hernia (f; DAA); Hookworm (f; HDN); Impotence (f; KAB); Infection (f1; DAA; HDN; NPM; WBB; X16876211); Inflammation (f; DAA; DAV; TRA; UPW); Leprosy (f; HDN); Leukoderma (f; KAB); Lice (f; HDN); Mastosis (f; UPW); Mycosis (f; UPW); Ophthalmia (f; UPW); Pain (f1; KAB; TRA; UPW); Parasites (f; HDN; UPW); *Pseudomonas* (1; X16876211); Rheumatism (f; HDN); *Salmonella* (1; X16876211); Snake Bite (f; DAA; HDN; LMP); Sores (f; DAV; KAB; KAP; MPI; WBB); Sore Throat (f; DAA); Strangury (f; KAB); Swelling (f; DAA); Syphilis (f; DAA; DAV; KAP; MPI; NAD; SKJ; WBB); Thyroma (f; DAA); Tumors (f1; DAV; X15706925); VD (f; DAA; KAP; SKJ); Worms (f; HDN; KAB; NPM; SKJ); Wounds (f; HDN); Yeast (f; DAA; WBB).

**Dosages:**

FNFF = !! Both aerial and ground tubers are widely eaten, baked, boiled, fried, mashed, or pickled; inflorescence also eaten (but see downsides) (DEP; FAC; NPM); 6–12 g powdered tuber (KAP).

- Asian Indians apply the powdered aerial tubers to sores, and take ½ oz with cumin, milk, and sugar for dysentery, piles, and syphilis (NAD).
- Burmese consider the plant lactagogue (LMP).
- Chinese use for boils, cervical cancer, snake bite, sore throat, and swelling (JLH; LMP).
- Colombians poultice leaves on tumors (JLH).
- Congolese dress fungal and parasitic infections with bulbs, mixing with palm oil for rheumatic pain, and using stem sap for purulent ophthalmia (UPW).
- Filipinos rub scrapings from aerial tubers onto swollen abdomen (LMP).
- Gabonese massage rheumatic, mastalgic areas, and jigger bites with crushed bulbs (UPW).
- Madagascans apply dried rasped bulbils to inflammations, sores, and wounds (UPW).
- Nepalese drip plant juice on sores to combat germs and worms (NPM).
- Nepalese mix root juice with turmeric and local beer for food poisoning (NPM).

**Downsides:**

Eating too much unprocessed tuber can kill animals and humans. In process of domestication, some yams almost edible, others quite poisonous. May contain a toxic alkaloid (NAD). Rhizomes can be hepatotoxic (X15139116). As of July 2007, the FDA Poisonous Plant Database listed 13 titles alluding to toxicity of this species.

**Extracts:**

Tuber extract shows significant antibacterial activity against *Pseudomonas aeruginosa*, *Salmonella typhi*, *S. paratyphi*, and *S. paratyphi* (X16876211). Petroleum ether extracts of hydrophobic compounds shows anticancer effects with direct toxicity to tumor cells (X15706925).

## LATINO YAM (*Dioscorea* spp.) +

### DIOSCOREACEAE

**Illustrations:**

p 784 (CR2); pl 48A, 48B (DAG)

**Synonyms:**

This is a rather broad generic account.

**Notes:**

I was amazed when I started rounding up my accounts for yams that most of my earlier accounts were on non-Latino species. Each year up in Ohio a group of us northeastern “gringos” argue as to whether we have 1, 2, or 3 species. We each have trouble convincing the other of the identities, when we have these 1–3 species. Nearly a thousand species have been described over the years. There are many in Latin America. And many of these have been genetically selected for medicinal or food virtues, and they are distinguished only with great difficulty. There is another confounding factor: what I call ethnobotanical drift. Almost every field botanist recognizes the genus *Dioscorea*, and those who do, in leading field trips, often tell the same medicinal tall tales when they see some poorly known Latin American wild species as I tell about the famed “wild yam” back home. Yes, on my pharmacy ecotours to Belize (ca. 5), Costa Rica (ca. 5), and Peru (ca. 50), adding up to more than a year of pharmacy ecotours, I’d talk about wild yams in general when

I'd see a *Dioscorea*. And the guides would listen and transpose my North American info to their more generic accounts for the next group of tourists (when I would not be there). That's ethnobotanical drift. But when I started to prepare this *Dioscorea* account for this Latin American edition, I floundered. Each of my Latin American floras had a lot of species and few ethnobotanical notes. Of the three species I covered by name in my *Isthmian Ethnobotanical Dictionary* (IED), all were cultivated and two were Asian, e.g., *D. alata*, which Morton (1977, 1981) covered very well (see JFM entries below). Only one, *D. trifida*, was Native American. And I reported no medicinal uses for that one, just food uses. So, in this account and only in this account, I include all the *D. villosa* indications and activities, noting that they were derived for *D. villosa* and not this imaginary composite Latino yam. Entries followed by JFM were cited in Julia Morton's book for the alien cultivated *D. alata*, but will probably apply even more to wilder species, richer in diosgenin. Mexican data followed by PCS (Standley, 1920–1926), relate to *D. macrostachya*. Belize data followed by AAB (Arvigo and Balick, 1993), apply to *D. cf. belizensis*. The common names followed by BNA apply to closely related *D. bartlettii* (Balick et al., 2000). Entries followed by MPB could be any one of 4 species reported medicinal there (*D. basiclavicaulis*, *D. glandulosa*, *D. laxiflora*, and *D. silvestris*) (Mors et al., 2000). Medicinal entries followed by DLZ apply to *D. larecajensis* a/o *D. tambillensis* (De Lucca and Zalles, 1992). EGG data are for *D. trifida* (Egg, 1999). There's really not much overlap between the North American and Latin American uses, but that will change (I predict), due to the explosion of ethnobotanical drift, following the discovery that contraceptives and steroids could be readily made from diosgenin. Readers are advised again that this is a broad generic approach to the genus *Dioscorea*. Those entries below followed by (1; FNF) have a chemical rationale, often due to the diosgenin.

#### Common Names:

Acaras (Bol.; Chiquitano; DLZ); Acars (Bol.; Chiquitano DLZ); Barba del Viejo (Bel.; Sp.; AAB); Barbasco (Bol.; Sp.; DLZ); Bejuco de Coraza (Mex.; PCS); Betilla (Ecu.; DAG); Cará de Folha Colorado (Brazil; MPB); Cará de Sapó (Brazil; MPB); Cará Liso (Brazil; MPB); Cará Sem Barba (Brazil; MPB); Caratinga (Brazil; MPB); Caratinga Brava (Brazil; MPB); Caratinga do Mato (Brazil; MPB); Cascos (Brazil; MPB); Cocolmeca (Bel.; AAB; BNA); Cocolmeca Blanca (Bel.; BNA); Cocolmecatl (Mex.; PCS); Japecanga (Brazil; MPB); Jupha Jupha (Aym.; Bol.; DLZ); Maji (Araona; Bol.; DLZ); Ogaje (Bel.; BNA); Qhari Unku (Bol.; Que.; DLZ); Red China Root (Bel.; Eng.; BNA); Tamara (Bol.; Tacana; DLZ); Warwascu (Aym.; Bol.; DLZ); White Cocolmecca (Bel.; Eng.; BNA); Wild Yam (Bel.; Eng.; BNA); Yayachi (Bel.; BNA); see also all names under *D. trifida*, a truly American species.

#### Activities:

Analeptic (1; FNF); Analgesic (1; FNF); Antiarthritic (f1; DLZ; FNF); Antiinflammatory (1; FNF); Antioxidant (1; FNF); Antirheumatic (1; FNF); Antispasmodic (1; FNF); Antiulcer (1; FNF); Bitter (f1; FNF); Carminative (f1; FNF); Cholagogue (f; FNF); Curare (f; DLZ); Diaphoretic (f; FNF); Digestive (f; JFM); Diuretic (f; EGG); Emetic (f; FNF); Emollient (f; MPB); Estrogenic (1; FNF); Expectorant (f; FNF); Febrifuge (f; DLZ; JFM); Hepatoprotective (1; FNF); Hypocholesterolemic (1; FNF); Hypoglycemic (f; FNF); Mastogenic (1; FNF); Myorelaxant (f; FNF); Piscicide (f; DLZ; PCS); Stimulant (f; JFM); Sudorific (f; JFM); Toxic (f; DLZ); Uterotonic (f; FNF).

#### Indications:

Acne (f; JFM); Angina (f; FNF); Appendicitis (f; FNF); Arteriosclerosis (f; FNF); Arthrosis (f1; DLZ; FNF); Asthma (f; MPB); Bilioussness (f; AAB); Boils (f; DLZ; MPB); Calculus (f; DLZ); Cardiopathy (f; FNF); Catarrh (f; DLZ); Chilblains (f; DLZ); Childbirth (f; FNF);

Cholecystosis (f; FNF); Cholera (f1; FNF); Colds (f; AAB); Colic (f; AAB); Conjunctivitis (f; FNF); Coughs (f; MPB); Cramps (f1; FNF); Croup (f; FNF); Cystosis (f; AAB); Dermatitis (f; DLZ; EGG; JFM); Diabetes (f; AAB; FNF); Diaphragmosis (f; FNF); Dysentery (f; FNF); Dysmenorrhea (f; FNF); Dyspepsia (f; FNF); Enteralgia (1; FNF); Enterosis (1; FNF); Fatigue (1; FNF); Fever (f; AAB; DLZ; JFM); Frigidity (f; FNF); Furuncle (f; DLZ); Gallstones (f; FNF); Gas (f1; FNF); Gastrosis (f; FNF); Gout (f; DLZ); Headache (1; FNF); Hemorrhoids (f; JFM); Hepatosis (f; FNF); Hiccough (f; FNF); High Cholesterol (1; FNF); High Triglycerides (1; FNF); Hysteria (f; FNF); IBS (f; FNF); Impotence (f; AAB); Infection (f; AAB); Infertility (f; AAB); Inflammation (1; EGG; FNF); Ischia (f; FNF); Itch (f; DLZ); Jaundice (f; FNF); Labor (f; FNF); Leprosy (f; MPB); Low HDL (1; FNF); Menopause (1; FNF); Micromastia (1; FNF); Miscarriage (f; AAB); Morning Sickness (f; FNF); Myalgia (f; FNF); Nausea (f; FNF); Nephrosis (f; AAB; DLZ); Nervousness (f; MPB); Neuralgia (f; FNF); Neurasthenia (f; FNF); Oliguria (f; AAB; DLZ); Pain (f1; AAB; FNF); Parturition (f; FNF); Pertussis (f; MPB); Prolapse (f; FNF); Rheumatism (1; FNF); Scabies (f; DLZ); Spermatorrhoea (f; FNF); Stings (f; JFM); Stomachache (f; FNF); Stress (1; FNF); Syphilis (f; FNF); Tenesmus (f; FNF); Tension (1; FNF); Tumors (f; JFM; JLH); Ulcers (1; FNF); Uterosis (f; FNF); VD (f; FNF); Vomiting (f; FNF).

### Dosages:

FNFF = X?! Caution, when you see that scientific epithet spp. This is a generic account, the better medicinal species may verge on poisonous, and the more edible species will be quite salubrious, and almost devoid of the phytosterols and especially diosgenin. Asparagus-like shoots of *D. macrostachya* are used to make “pozonque” with ground corn and chocolate (PCS). Tanaka (1976) lists dozens of edible species in his worldwide encyclopedia, but there could be dozens of poisonous species.

- Belizeans boil a handful of roots (*D. cf. belizensis*) 10 min. in 3 cups water for bladder and kidney ails, including stoppage of urine, sipping the 3 cups throughout the day (AAB).
- Belizeans drink tuber tea (*D. cf. belizensis*) before each meal for arthritis, biliousness, cold, colic, cough, diabetes, fever, pain, and rheumatism (AAB).
- Belizeans steep tuber (*D. cf. belizensis*) in gin or anisette 10 days taking 3 tsp/day for impotence and infertility (AAB).
- Bolivians take tea or rhizome or tuber (*D. larecajensis*) for arthritis, bladder ails, calculus, catarrh, gout, nephrosis, and rheumatism (DLZ).
- Bolivians apply mashed leaves (*D. larecajensis*) to blemishes, boils, furuncles, itch, mange, scabies, and other dermatoses (DLZ).

### Downsides:

Large doses of tincture can be poisonous. Medicinal yams may be so rich in saponins as to be distasteful, beware of overconsumption. Overdoses could lead to picrotoxin-like poisonings due to dioscorin (PHR). Diosgenin may reduce antiinflammatory effects of indomethacin (PH2), may be additively estrogenic with true estrogen (PH2). Use may be inappropriate in hormonal disorders (WAM). Use during pregnancy not advised (WAM). Limit children's use to 1 week (WAM).

### Extracts:

Diosgenin reportedly antifatigue, antiinflammatory, antistress, estrogenic, hepatoprotective, hypocholesterolemic, and mastogenic.

**CUSH CUSH (*Dioscorea trifida* L. f.) ++****DIOSCOREACEAE****Illustrations:**

pl 48 (DAG)

**Synonyms:***Dioscorea brasiliensis*; *D. ruizana*; *D. triphylla*; fide (EGG; RAR).**Notes:**

In his great Peruvian book, Brach-Egg (1999) reports more edible than medicinal species. His data below for *D. trifida* are followed by EGG.

**Common Names:**

Bija (Culina; EGG; RAR); Cara (Chiriguano; DLZ; EGG; RAR); Cará-Doce (Por.; POR; USN); Carazes (Peru; EGG; RAR); Couche-Couche (Fr.; Guad.; AVP; POR; USN); Cousse-Couche (Fr.; POR; USN); Cousse-Cousse (Fr.; Mart.; AVP); Cush-Cush (Eng.; Peru; Trin.; AVP; EGG; POR; RAR; USN); Cush-Cush Yam (Eng.; POR; USN); Igame Couche-Couche (Fr.; POR); Igame Martinique (Haiti; AVP); Indian Yam (Pr.; AVP); Indische Yams (Ger.; POR); Inhame (Brazil; Por.; USN); Kéngke (Aguaruna; Peru; EGG); Kusch-Kusch (Ger.; POR; USN); Kuschkusch-Yamswurzel (Ger.; USN); Mackua (Peru; Piro; EGG); Mágona (Matsigenka; Peru; EGG); Mallica (Peru; EGG; RAR); Mallika (Aym.; Bol.; DLZ); Mapuey (Dor.; AVP; FAC; USN); Mitsuba Dokoro (Japan; POR); Ñame (Peru; Sp.; EGG; POR; USN); Ñame de la India (Sp.; POR; USN); Napi (Sur.; AVP); Nihi Pova (Amahuaca; EGG; RAR); Nyame (Sp.; USN); Nyame de la India (Cr.; Sp.; AVP; USN); Nyame Mapuey (Cuba; Pr.; AVP); Nyame Morado (Pr.; Ven.; AVP); Nyampi (Cr.; AVP); Papa de Montanya (Peru; EGG; RAR); Papa Semitona (Peru; EGG); Sacha Papa (Peru; Sp.; EGG; LOR; MDD; POR; USN); Sacha Papa Morado (Peru; Sp.; EGG; LOR); Shari (Oatipaeri; Peru; EGG); Tabena (Col.; Sp.; POR; USN); Tamcapiz (Chiquitano; DLZ); Thai (Amarakaeri; Peru; EGG); Wild Potato (Eng.; DAV); Yampee (Eng.; Peru; EGG; RAR; USN); Yampi (Pan.; AVP); Yampie (Jam.; AVP).

**Activities:**

Curare (f; DLZ; EGG).

**Indications:**

Dermatosis (f; DAV; EGG); Inflammation (f; DAV; EGG).

**Dosages:**

FNFF = !! Bulbs widely consumed cooked for food, especially in Bolivia, the Caribbean, and Peru (DLZ; EGG; FAC).

- Bolivians and Peruvians extract arrow poisons from the stems and tubers (DLZ; EGG).
- Peruvians plaster mashed raw tubers on dermatitis and inflammation (EGG).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

## DIPHYSA (*Diphysa americana* (Mill.) M. Sousa) +

### FABACEAE

**Illustrations:**

p 441 (TTS)

**Synonyms:**

*Colutea americana* Mill. (basonym); *Diphysa floribubda* Peyr.; *D. robinoides* Benth.; fide (PCS; USN).

**Notes:**

Doubtfully distinct from *D. carthaginesis* (PCS) so I include that here in the JFM entries (Morton, 1977, 1981). Timber tree with antimalarial and antileishmanic potential.

**Common Names:**

Achivare (Sp.; TTS); Arate (Sp.; TTS); Bolsa de Gato (Ma.; JFM; TTS); Cacique (Pan.; PCS); Carate (Sp.; TTS); Cuachepil (Mex.; PCS); Cuau Chepilli (Mex.; Nahuatl; PCS); Guachipelfí (Cr.; Sal.; PCS); Guachipilín (Cr.; Guat.; Sal.; JFM; MPG; PCS); Huachipilín (Cr.; Sal.; PCS); Huiloche (Sp.; TTS); Macano (Pan.; PCS); Macano Amarillo (Sp.; TTS); Maraquito (Ma.; JFM); Much (Guat.; MPG); Naguapate (Sp.; TTS); Negrito (Sp.; TTS); Palo Amarillo (Guat.; MPG; PCS; TTS); Palo Santo (Sp.; TTS); Retama (Sp.; TTS); Retama de Cerro (Sp.; TTS); Ruda del Monte (Bel.; BNA); Sikró (Ma.; TTS); Singrá (Ma.; TTS); Stutztuk (Ma.; JFM); Susuc (Ma.; JFM); Tsikrá (Ma.; TTS); Tsutsuc (Ma.; JFM); Urxk (Ma.; TTS); Vivaseca (Ma.; TTS); Wild Ruda (Bel.; BNA); Wild Rue Monte (Bel.; BNA); Xbalbalché (Ma.; JFM; TTS); Xsusuc (Ma.; TTS); Zusec (Ma.; JFM); Zuzoc (Ma.; JFM); Zuzul (Ma.; JFM). (Nscn).

**Activities:**

Anticonvulsant (f; MPG); Antiescherichia (1; X2214824; X8479202); Antigonorrheal (1; X8583798); Antiinflammatory (f; MPG); Antisalmonella (1; X2214824; X8479202); Antiseptic (f1; MPG); Antishigella (1; X2214824; X8479202); Bactericide (1; MPG; X2214824; X8479202); Candidicide (1; MPG); Cicatrizant (f; MPG); Enterobactericide (1; X2214824; X8479202); Fungicide (1; MPG; X8145577); Hemostat (f; JFM); Sudorific (f; JFM; MPG).

**Indications:**

Abscesses (f; MPG); Anemia (f; MPG); Asthma (f; MPG); Bacteria (1; MPG; X2214824; X8479202); Bleeding (f; JFM); Boils (f; MPG); Cancer (f; MPG); *Candida* (1; MPG); Child-birth (f; MPG); Conjunctivitis (f; MPG); Convulsions (f; MPG); Dermatophyte (1; X8145577); Dermatitis (f; MPG); Diarrhea (f; MPG); Dysentery (f; MPG); *Escherichia* (1; X2214824; X8479202); Fungus (1; MPG; X8145577); Gastroitis (f1; MPG; X2214824; X8479202); Gonorrhoea (f1; MPG; X8583798); Headache (f; MPG); Infection (f1; MPG; X2214824; X8479202); Inflammation (f; MPG); *Leishmania* (f; MPG); Malaria (f; MPG); Mucositis (f; MPG); *Mycobacterium* (f; MPG);

*bacterium* (1; MPG); *Neisseria* (1; MPG); Nephrosis (f; MPG); Ophthalmia (f; MPG); Pain (f; MPG); Respiriosis (f; MPG); *Salmonella* (1; MPG; X2214824; X8479202); *Shigella* (1; MPG; X2214824; X8479202); Sores (f; JFM; MPG); *Staphylococcus* (1; MPG); *Streptococcus* (1; MPG); Tinea (f; MPG); Tonsilosis (f; MPG); VD (f1; MPG; X8583798); Wounds (f; JFM; MPG); Yeast (1; MPG).

**Dosages:**

FNFF = ?

- Mayans apply leaf juice to open sores and wounds, e.g., 5 or 6 drops to cure the “chiclero ulcer” (JFM).
- Mayans apply 9 drops mixed in water to treat bleeding dysentery (JFM).
- Yucatanese use plant as sudorific (JFM).

**Extracts:**

50% alcoholic leaf tincture *in vitro* active against *Neisseria gonorrhoeae* strains (X8583798). Ethanolic extract antifungal (MIC = 50 µg/ml) (X8145577). Extract demonstrated activity against enteropathogens *Escherichia coli*, *Salmonella enteritidis*, *S. typhi*, *Shigella dysenteriae*, and *S. flexneri* (X2214824; X8479202).

## TONKA BEAN (*Dipteryx odorata* (Aubl.) Willd.) + FABACEAE

**Illustrations:**

fig 94 (DAV); fig 36 (GMJ); p 79 (LEG)

**Synonyms:**

*Coumarouna odorata* Aubl.; *C. punctata* Blake.; fide (USN).

**Notes:**

While the coumarin warnings below are widely echoed in the literature, they are largely discounted. Duke and Vasquez (1994) list both *D. micrantha* and the more widely known *D. odorata* (in DAV), both sharing common names and uses. Without detailed comparative chemical, medicinal, and morphological studies of both species, I suspect that what I say of *D. odorata*, even the common names, are more or less generic for these two species at least. It's *D. micrantha* that is so far mentioned at Inkterra.

The reddish sawdust once caused a workman's hair, when wetted, to turn bright green (CRC).

**Common Names:**

Almendro (Ma.; JFM); Arvore dos Feiticeiros (Ma.; Por.; JFM); Charapilla (Peru; DAV); Charapilla del Murciélago (Peru; DAV); Coumaron (Fr.; USN); Cumaru (Guarani; Por.; Sp.; LEG; MPB; RAR; USN); Cumaru Amarelo (Brazil; MPB); Cumaru-de-Cheiro (Brazil; Por.; USN); Cumaru do Amazonas (Brazil; Por.; MPB; USN); Cumarurana (Brazil; Por.; USN); Cumaru Roxo (Por.; GMJ); Cumaru Verdadeiro (Brazil; Por.; MPB; USN); Cumaruzeiro (Por.; USN); Cumbari (Ma.; JFM); Cumbaru (Ma.; JFM); Dutch Tonka Bean (Eng.; USN); Emburano de Cheiro (Ma.; JFM); Faux Gaiac (Fr.; GMJ); Fava Tonka (Brazil; It.; MPB; USN); Feve Tonka (Fr.; GMJ; USN); Gaiac (Creole; Guy.; GMJ); Haba Tonka (Sp.; USN); Ishpingo (Ai.; Sa.; RAR); Koemaroe (Dwi.; JFM); Krapabosi (Ma.; JFM); Kumaru (Ma.; JFM); Munui (Wayāpi; GMJ); Muniiee (Wayāpi; GMJ); Sarapia (Ma.; JFM); Sarrapia (Sp.; USN); Serrapia (Ai.; Sa.; RAR); Shihuahuaco (Peru; DAV); Tonca Bean (Eng.; EFS); Tonicaboon (Dutch; EFS); Tonga (Sp.; LEG); Tonga Bean (Eng.; USN); Tonka Bean (Eng.; USN); Tonk-



abohnenbaum (Ger.; USN); Tonkabonner (Den.; EFS); Tonka Mame (Japan; TAN); Tonkin Bean (Eng.; Ma.; JFM); Waikwwinkwa (Palikur; GMJ); Yape (Ma.; JFM).

### Activities:

Analgesic (1; FNF); Anesthetic (1; FNF); Antiaggregant (1; APA; DAW); Antiandrogenic (1; FNF); Antiasthmatic (f; MPB); Antidiuretic (1; CAN); Antiedemic (1; CPB38:2283); Anti-escherichia (1; JBH); Antiinflammatory (1; FNF); Antimitotic (1; IJP33:7); Antimononucleotic (1; MAB); Antimutagenic (1; EMP6:235); Antimycoplasmotic (1; MAB); Antioxidant (1; APA); Antipsittacotic (1; MAB); Antipsoriac (1; IJP33:7); Antiseptic (1; APA); Antispasmodic (f; APA; CRC; HHB); Antitoxoplasmotic (1; MAB); Antitussive (f; DAW); Aphrodisiac (f; CRC); Cardiotoxic (f; DAW; EFS; FEL); Cardiotoxic (1; PNC); Chemopreventive (1; X12762787); Diaphoretic (f; DAW); Emmenagogue (f; MPB); Febrifuge (f; DAV; DAW); Fumitory (f; CRC); Hepatotoxic (1; APA); Narcotic (f; CRC; DAD; FEL); Propecic (f; MPB); Stimulant (f; DAW); Stomachic (f; DAW); Tonic (f; APA; CRC; PHR; PH2).

### Indications:

Alopecia (f; MPB); Asthma (f; MPB); Bacteria (1; FNF); Brucellosis (1; FNF); Bruises (f; DAV); Cachexia (f; APA; CRC); Cancer, kidney (1; FNF); Cancer, prostate (1; FNF); Canker (f; CRC); Cardiopathy (f; DAW; EFS; FEL); Coughs (f; DAV; DAW); Cramps (f; APA; CRC; HHB); Diabetes (1; FNF); Dyspepsia (f; DAW); Earache (f; CRC); Edema (1; CPB38:2283; FNF); Elephantiasis (2; X8853310); *Escherichia* (1; FNF; JBH); Fever (f; DAV; DAW); Fungus (1; FNF); Gastrosis (f; MPB); Hyperglycemia (1; FNF); Impotence (f; CRC); Infection (1; APA; FNF); Inflammation (1; FNF); Insomnia (1; FNF); Lymphedema (2; X8853310); Lymphoma (1; FNF); Melanoma (1; FNF); Metastasis (1; FNF); Mononucleosis (1; FNF); Mycoplasma (1; FNF); Mycosis (1; FNF); Nausea (f; APA; CRC; DAD); Nephrosis (1; FNF); Pain (f1; FNF; MPB); Pertussis (f; APA; CRC; FEL; PHR; PH2); Prostatitis (1; FNF); Psittacosis (1; FNF; MAB); Psoriasis (1; IJP33:7); Rheumatism (f; DAV); Schistosomiasis (f; CRC; DAD); Snake Bite (f; DAV); Sores (f; CRC; JFM); Sore Throat (f; CRC; JFM); Spasms (f; CRC); Stomachache (f; MPB); Stomatitis (f; CRC; MPB); Toxoplasmosis (1; MAB); Tuberculosis (1; APA); Ulcers (f; CRC).

### Dosages:

FNFF = ! Tonka beans sometimes eaten, though such would be discouraged in the U.S. (FAC). Powdered seed added to white wine for stomach distress (JFM). Seed oil used to alleviate oral sores, stomachache, and to stimulate hair growth; seed tincture used to alleviate pain (MPB).

- Brazilians use seed oil for earache (CRC).
- Guyanans use astringent gum for sore throat (JFM).

### Downsides:

Class 3 (AHP). Not covered (CAN; KOM). None at proper dosage (PH2). Should not be used medicinally (APA); high doses (150 g bean, equivalent to 4 g coumarin) could cause headache, nausea, stupor, and vomiting (PHR). Coumarins may cause severe liver damage "which is why the FDA banned the use of the beans as a flavoring agent" (APA). Rats and dogs fed coumarin develop liver damage, retarded growth, and testicular atrophy. Still, coumarins are reportedly effective in reducing high-protein edema, especially lymphedema. Respectable scientists question that coumarin, in reasonable doses, can harm humans with normal liver function. Coumarin may possibly cause bleeding incidents, but not like coumadin. Not being exactly exact, Peirce (1999) leads us to a half-coumadinized conclusion: "You may recognize the name coumarin in relation to the common anticoagulant warfarin, sold as Coumadin TM" (APA). My understanding is that coumadin is dicumarol, much more serious than coumarin itself. In large doses fluid extracts of tonka beans are reportedly cardioparalytic (APA); narcotic, the fluid extract can paralyze the heart if infused in large doses. As of July 2007, the FDA Poisonous Plant Database listed 26 titles alluding to toxicity of this species.

**Extracts:**

Coumarin itself (1,2-benzopyrone) has long-established efficacy in slow-onset long-term reduction of lymphoedema in man, as confirmed in recent double-blind trials against elephantiasis and post-mastectomy swelling of the arm. The mechanism of action is uncertain, but may involve macrophage-induced proteolysis of oedema protein. However, coumarin has low absolute bioavailability in man (< 5%), due to extensive first-pass hepatic conversion to 7-hydroxycoumarin followed by glucuronidation. It may, therefore, be a pro-drug (X8853310).

**FLORIDA HOPSHRUB (*Dodonaea viscosa* Jacq.) ++****SAPINDACEAE****Illustrations:**

pl 267 (KAB)

**Notes:**

I'm inclined to agree with Austin (2004), who's inclined to believe that most, if not all, of the many species described in the pantropical genus are synonymous. Willis' Dictionary says there are some sixty (AIR).

**Common Names:**

Ake (Nz.; KAB); Akeake (Nz.; KAB); Akerantangi (Nz.; KAB); Aliar (Hindi; Sanskrit; NAD); Alipata (Tag.; KAB); Anarthrik (Jaunchotok; KAB); Ayuelo (Col.; AVP); Bandare (Badaga; KAB); Bandari (Bom.; Mah.; NAD); Bandarike (Kan.; KAB); Bandaru (Tel.; KAB; NAD); Bandediru (Lambadi; KAB); Bandedu (Tel.; KAB); Banderu (India; KAB); Bandrike (Kan.; DEP; NAD); Bandu (Kan.; DEP); Bandurgi (Bom.; Mah.; DEP; NAD); Ban Mendru (Pun.; NAD); Banmendu (Pun.; KAB); Bois Couche (Fwi.; AVP); Bois Guillame (Fwi.; JFM); Bois Madame (Fwi.; AVP); Bundurgi (Kan.; KAB); Calapinai (Tag.; KAB); Candlewood (Bah.; Bar.; AUS; AVP); Casirag (Zambales; KAB); Castaña(o) (Ma.; Peru; AUS; JFM; ROE); Chacataya (Bol.; HAD); Chama (Peru; ROE); Chaman (Peru; ROE); Chamana (Col.; Peru; AVP; EGG); Chamasa (Peru; EGG; ROE); Chamisa Samana (Peru; EGG); Chamiso (Arg.; Pr.; Uru.; AUS; AVP); Chamiza (Peru; ROE); Chanamo (Col.; Peru; AVP; ROE); Chantigi (Sunda; IHB); Chapulixctli (Mex.; Nahuatl; AUS; JFM); Chapuliztle (Mex.; AVP); Chapuliztoli (Ma.; JFM); Chilca (Cr.; Peru; AUS; JFM; ROE); Chilim (Ma.; Peru; JFM; ROE); Chirca (Ma.; JFM); Chirca de Monte (Cr.; Ma.; Peru; AUS; JFM; ROE); Chulita (Guat.; Sal.; AVP; ROE); Cucaracha (Dor.; AHL; AUS); Cuervo de Calva (Mex.; AVP); Cuerno de Cabra (Mex.; AUS; JFM; ROE); Daduni (Nasirabad; KAB); Dawakajhar (Pun.; NAD); Dhasera (Pun.; NAD); Digadigambazaha (Malagasy; KAB); Dindgadingandahy (Hova; KAB); Dingandahy (Malagasy; KAB); Dodena (Cuba; AVP); Dogwood (Bah.; Pr.; AUS; AVP); Erva de Veado (Brazil; AUS); Eta (Sin.; NAD); Etaverella (Sin.; KAB); Eta Werella (Sin.; DEP); Faxini Vermelha (Brazil; AUS); Florida Hopbush (Eng.; Scn.; AH2; USN); Gansies (Afrikaan; KAB); Gelampaya (Malaya; IHB); Ghisani (Bal.; KAB); Ghoraski (Pushtu; KAB); Ghuraska (Trans-Indus; KAB); Ghuraskai (Pushtu; KAB); Gitaran (Pr.; AVP); Gollapullea (Saora; KAB); Granadillo (Ven.; AVP); Granadina (Mex.; AUS; AVP); Grenadina (Ma.; JFM; ROE); Guachomó (Guarijio; AUS); Guatacan (Pr.; AVP); Gui Laga Citi (Mex.; Zapotec; AUS); Guitarán (Pr.; AUS); Haguelo (Ven.; AVP); Haguyuy (Tayabus; KAB); Hanartirk (Ormara; KAB); Hangaralu (Kan.; KAB); Hangaru (Kan.; KAB); Hayo (Peru; Ven.; AVP; ROE); Hayuelo (Col.; AVP); Hierba de la Cucaracha (Mex.; AUS; JFM; ROE); Hierba del Campo (Ma.; JFM; ROE); Hopbush (Eng.; Aust.; Pan.; AUS; AVP; UPW); Hopshrub (Bar.; Eng.; USN); Hopwood (Eng.; FNF); Huayun Ak (Maya; Mex.; AUS); Incienso (Ma.; Sp.; AUS; JFM);

Jaras (Mex.; AUS); Jaril (Ven.; AVP); Jarilla (Ma.; Mex.; AUS; JFM; ROE); Jirimu (Ma.; JFM); Kabunda (Congo; AVP); Kankerbos (Afrikaan; KAB); Kayu Berteh (Malaya; IHB); Kayu Berthi (Malaya; KAB); Kayu Mesen (Java; IHB); Kese (Java; IHB); Kharata (India; KAB); Kisig (Java; IHB); Kresek (Java; IHB); Lambinamorona (Betsileo; KAB); Letup Letup (Malaya; IHB); Lovinohazu (Sakalave; KAB); Lutchmi (Mar.; KAB); Mai Pek (Thai; IHB); Mangle Oseille (Fwi.; Guad.; Mart.; AUS; AVP); Manglier Petites Feuilles (Haiti; AVP); Mendar (Pun.; KAB); Mendru (Pun.; KAB); Mesen (Java; IHB); Mirandu (Kangra; DEP; KAB); Misidu (Teita; KAB); Muendu (Kakamega; KAB); Mukusao (Congo; AVP); Munditos (Mex.; AUS; JFM); Muremumusua (Kikuyu; KAB); Musara (Congo; AVP); Musombia (Congo; AVP); Mutheo (Kamba; KAB); Native Birch (Tasmania; KAB); Native Ebony; Native Hops (Eng.; AUS; FAC); Native Lignum Vitae (Tasmania; KAB); Ocotillo (Mex.; Ocn.; AH2; AUS; JFM); Oi Gerturai (Masai; KAB); Palo de Reina (Ma.; JFM); Palo de Rey (Dor.; JFM); Palo de Sabana (Dor.; AHL); Pativier (Haiti; Ma.; AUS; JFM); Pichon (Ma.; JFM); Pinchon (Trin.; AUS); Pipali (Simla; KAB); Pipalu (Simla; DEP); Pirimu (Mex.; Tarascan; AUS; JFM); Plomito (Ma.; AUS; JFM); Pullena (Tel.; KAB); Reinette (Réunion; KAB); Sanatha (Hazara; DEP; KAB); Sanatta (Pun.; Sanskrit; KAB; NAD); Santha (Pun.; KAB); Sen (Ven.; AVP); Serengan Laut (Malaya; IHB); Seringan Laut (Malaya; KAB); Shahas (Arab.; GHA); Sinatha (Hindi; TAN); Sonalta (Hindi; KAB); Sticky Hop Bush (Eng.; AUS); Switch Sorrel (Eng.; Jam.; AUS; AVP; FAC); Tahsses (Tigrinia; KAB); Takri (Mikasuki; AUS); Tarachiqui (Mex.; Opatá; AUS); Tasses (Tigre; KAB); Tengsek (Java; IHB); Tsekatseki (Chopi; Lenge; KAB); Umusasa (Congo; AVP); Unnataruvi (Kadir; Mal.; KAB); Valari (Tam.; NAD); Varal (Ma.; JFM); Varnish Leaf (Eng.; Ma.; AUS; JFM); Vassoura de Campa (Brazil; AUS); Vassoura Vermelha (Brazil; AUS; AVP); Veravena (Trans-Indus; KAB); Virali (Mal.; Sri.; Tam.; KAB; NAD); Vrali (Madras; KAB); Walaytinahndi (Hindi; KAB); Warella (Sin.; NAD); Worra (Kohlu; KAB); Wuraskai (Pushtu; KAB); Yak Cij (Mex.; Zapotec; AUS); Zakhmi (Bom.; Mah.; NAD).

### Activities:

Alterative (f; NAD); Analgesic (f1; UPW; X11297841); Anthelmintic (1; HAD); Antiedemic (1; X16884859); Antiexudative (1; AUS; GHA); AntiHIV (1; X11180526); Antiinflammatory (1; X12628410; X16884859); Antiretroviral (1; X11180526); Antiseptic (1; JFM; X12628410; X1548900); Antispasmodic (1; JFM; X8657750); Antiviral (1; X12628410); Astringent (f; ROE; UPW); Bactericide (1; X12628410; X1548900); Candidicide (1; X1548900); Cardioactive (1; HAD; JFM); Carminative (f; IHB); Diaphoretic (f; HAD); Febrifuge (f; DAW; DEP; GHA; ROE); Fungicide (1; X1548900); Gram(+)-icide (1; X1548900); Gram(-)-icide (1; X1548900); Hemostat (f; AUS; JFM); Hypotensive (1; HAD; JFM); Immunostimulant (1; AUS); Lactagogue (f; UPW); Laxative (f; ROE); Molluscicide (1; GHA); Myorelaxant (1; X8657750); Panacea (f; KAB); Phagocytotic (1; AUS); Piscicide (f; DAW); Purgative (f; AUS; ROE); Sedative (1; HAD; JFM); Stimulant (f; FAC; KAB; WOI); Styptic (f; DAW); Sudorific (f; AUS); Tonic (f; NAD; ROE); Vulnerary (f; DEP; ROE).

### Indications:

Abscesses (f; JFM); Asthma (f; ROE); *Bacillus* (1; AUS); Bacteria (1; X12628410; X1548900); Bleeding (f; AUS; DAW; JFM); Boils (f; JFM); Bruises (f; DAW; ROE); Burns (f; DAW; DEP; GHA; NAD; ROE); *Candida* (1; X1548900); Childbirth (f; ROE); Colic (f; DAW); Constipation (f; ROE); Coxsackie (1; X12628410); Cramps (1; JFM; X8657750); Dermatitis (f; DAW); Dislocation (f; EGG); Eczema (f; UPW); Edema (1; X16884859); Enuresis (f; ROE); *Escherichia* (1; AUS); Fever (f; DAW; DEP; GHA; KAB; ROE); Flu (1; X12628410); Fracture (f; ROE); Fungus (1; X1548900); Gas (f; IHB); Gastrosis (f; GHA; KAB); Gout (f; DAW; NAD; ROE); High Blood Pressure (1; HAD; JFM); HIV (1; X11180526); Infection (f1; HAD; JFM; X12628410; X1548900); Inflammation (1; X12628410; X16884859); Insomnia (1; HAD; JFM); Itch (f; HAD); Mycosis (1; X1548900); Pain (f1; UPW; X11297841);

Pregnancy (f; ROE); Puerperium (f; ROE); Pulmonosis (f; ROE); Rheumatism (f; DAW; GHA; NAD; ROE); Scalding (f; DEP); Scars (f; DEP; JFM); Sciatica (f; EGG); Shoulder (f; EB25:348); Snake Bite (f; HAD; KAB; ROE); Sores (f; EB25:348); Sore Throat (f; UPW); Spasms (1; JFM; X8657750); Sprains (f; DAW); *Staphylococcus* (1; AUS; X12628410); *Streptococcus* (1; X12628410); Swelling (f; DAW; KAB; WOI); Toothache (f; GHA; HAD; JFM); Tumors (f; AUS); VD (f; DAW); Viruses (1; X12628410); Worms (1; HAD); Wounds (f; DAW; DEP; HAD; ROE); Yeast (1; X1548900).

**Dosages:**

FNFF = !! Fruits edible, used as hops substitute; seeds edible; leaves chewed as a stimulant (FAC; TAN).

- Arabians apply crushed leaves to toothache (GHA).
- Brazilians and Mexicans use the leaf decoction for rheumatism and VD (AUS).
- Brazilians apply the sap to tumors (AUS).
- Brazilians, Mexicans, and Panamanians use the plant for fever (AUS).
- Colombians use the leaf tea as hemostat (AUS).
- Latinos boil 2 handful leaves in 1 liter water for 10 min and poultice on abscesses and boils (JFM).
- Mexicans take the bitter leaf decoction for colic, fever, gout, rheumatism, and VD (JFM).
- Panamanians chew the leaves for toothache (AUS).
- Peruvians bathe sciatica areas with leaf decoction (EGG).
- Peruvians plaster the leaves on dislocations and rheumatic areas (EGG).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed 10 titles alluding to toxicity of this species.

**Extracts:**

Hydroalcoholic leaf extract given orally to mice at 300 mg/kg significantly inhibited induced paw edema, with no sign of toxicity 5,000 mg/kg p.o. (X16884859). Leaf extract antibacterial against *Streptococcus pyogenes*, *Staphylococcus aureus*, with strong activity against Cocksackie virus B3 and influenza A virus (X12628410). The spasmolytic compounds from the extract, sakuranetin, 6-hydroxykaempferyl 3,7-dimethyl ether, hautrivaic acid, and ent-15,16-epoxy-9 alpha H-labda-13(16)14-diene-3 beta, 8 alpha-diol, inhibited guinea pig ileum-induced contractions by interfering with the calcium metabolism in smooth muscle cells (X8657750).

**CONTRAHIERBA (*Dorstenia contrajerva* L.) +****MORACEAE****Common Names:**

Contrayerba (Sp.; USN); Herbe-Chapeau (Fr.; USN).

**Activities:**

Alexiteric (f; EFS); AntiHIV (1; X15178338); Diaphoretic (f; HHB; PH2); Diuretic (f; HHB); Emmenagogue (f; JFM); Febrifuge (f; JFM); Leishmanicide (1; X17482379); Orexigenic (f; JFM); Stimulant (f; EFS; PH2); Tonic (f; JFM).

**Indications:**

Anorexia (f; JFM); Bites (f; JFM); Cancer (f; HHB; JLH); Cholera (f; JFM); Colds (f; JFM); Colic (f; JFM); Coughs (f; EFS); Dermatitis (f; JFM); Diarrhea (f1; HHB; X16846708); Dys-

entry (f1; HHB; X16846708); Dyspepsia (f; JFM); Epilepsy (f; JFM); Fever (f; JFM); Fracture (f; IED); Gastrosis (f1; EFS; X16846708); HIV (1; X15178338); *Leishmania* (1; X17482379); Malaria (f; HHB); Measles (f; JFM); Smallpox (f; JFM); Snake Bite (f; HHB; PH2); Tetanus (f; JFM); Toothache (f; JFM); Typhoid (f; JFM); Typhus (f; HHB); Wounds (f; HHB).

**Dosages:**

FNFF = ? Decoct 8 g in 180 cc sweetened water, take 2 tbsp every other hour (JFM).

**Downsides:**

Not covered (AHP). "Health risks or side effects following the proper administration of designated therapeutic dosages are not recorded" (PH2). Furanocoumarins may trigger phototoxicity. As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**Extracts:**

Methanol plant extract active against *Leishmania mexicana* promastigotes (IC<sub>50</sub> < 50 µg/ml) (X17482379). Methanolic extract active against *Giardia lamblia* (IC<sub>50</sub> < 38 µg/ml) (X16846708). The peptide contrajervin inhibits the cytopathic effect of HIV-1(RF), binding to gp41 and gp120 (X15178338).

**LITAMO (*Draba litamo* (L.) Uribe) +  
BRASSICACEAE**

**Notes:**

The folklore looks like that we hear lately for the related "maca," *Lepidium maca*, of the same family Brassicaceae.

**Common Names:**

Dictamo (Col.; MPG); Litamo (Col.; MPG); Litamo Real (Col.; MPG); Litamo Rial (Col.; MPG). (Nscn).

**Activities:**

Antiaging (f; MPG); Tonic (f; MPG).

**Indications:**

Aging (f; MPG); Cancer (f; MPG); Cardiopathy (f; MPG); Enterosis (f; MPG); Gastrosis (f; MPG); Hepatosis (f; MPG); Nephrosis (f; MPG); Neurosis (f; MPG); Pain (f; MPG); Toothache (f; MPG).

**Dosages:**

FNFF = ! Colombians believe that eating it regularly will prolong life and vigor (MPG).

**DRAGONTREE (*Dracaena draco* (L.) L.) +  
AGAVACEAE**

**Synonyms:**

*Asparagus draco* L. (basonym); *Yucca draconis* L.; fide (USN).

**Notes:**

This native of the Canary Islands is another of the trees called popularly "dragon's blood" as the sap turns red on exposure.

**Common Names:**

Canary Dragon's Blood (Eng.; HOC); Dracena (Brazil; Por.; USN); Drago (Spain; MPG); Dragontree (Eng.; USN); Sangue-de-Dragão (Brazil; Por.; USN). (Nscn).

**Activities:**

Antileukemic (1; X12828464; X15265493; X17193217); Antitussive (f; MPG); Apoptotic (1; X15265493); Cicatrizant (f; MPG); Cytotoxic (1; X12828464; X15265493; X17193217); Hemostat (f; MPG).

**Indications:**

Bleeding (f; MPG); Coughs (f; MPG); Dysentery (f; MPG); Gingivosis (f; MPG); Glossosis (f; MPG); Hematoma (f; MPG); Leukemia (1; X12828464; X15265493; X17193217); Sores (f; MPG); Stomatosis (f; MPG); Wounds (f; MPG).

**Dosages:**

FNFF = ! Tender young leaves cooked as vegetable, added to rice dishes; roasted fruits locally eaten (FAC; TAN).

**Extracts:**

The steroidal saponin, icogenin, and several other compounds exhibited cytotoxic activity toward leukemia cell line HL-60 (IC<sub>50</sub> = 2.0–9.7 μM) (X12828464; X15265493; X17193217).

**DRACONTIUM (*Dracontium* spp.) +  
ARACEAE**

**Illustrations:**

fig 96 (DAV)

**Notes:**

Though I dislike using a scientific name as common name, the scientific name of *Dracontium polyphyllum* was used also as its standardized common name (AH2), and I'll abide by their choice, reluctantly. So the standardized common "Dracontium" was given for the species I discuss briefly here in my generic account. Rutter (1990) data apply to *D. asperum* and *D. dubium* (RAR); Morton (1977, 1981) data to *D. pittieri* (JFM); EB23 (*Economic Botany*) data to *D. polyphyllum*; Schultes and Raffauf (1990) data to *D. trianae* (SAR); De Lucca and Zalles (1992) data to *D. ulei* (DLZ); Mors et al. (2000) data to *D. asperum* and *D. polyphyllum* (MPB). Taylor (2005) data seem spread across *D. asperum*, *D. longipes*, *D. lortetense*, and *D. peruvianum* (RAI). Desmarchelier and Witting (2000) and Duke and Vasquez (1994) data apply to *D. loretense* (60P; DAV). I'm going to use the prevailing local name in Loreto for this one, "jergon sacha," which translates "fer-de-lanc." Schultes and Raffauf (1990) refer to *D. longipes* as "jergon sacha." Perhaps Dr. Tom Croat, my friend and aroid specialist, can tell them all apart. I cannot. I feel there may be more names than species and further suspect

that the taxonomically naive natives use them generically, not distinguishing so many species. As with most of the other Amazonian species of *Dracontium*, most of the colloquial names relate to snakes. It has found its way into a local Peruvian AIDS (CIDA) remedy, with cat's claw and turmeric.

### Common Names:

Bâton Parapluie (Creole; Guy.; GMJ); Bordón (Peru; RAR); *Dracontium Polyphyllum* (Eng.; Scn.; AH2); Erva de Santa Maria (Brazil; MPB); Erva Jararaca (Brazil; MPB; RAI); Fer-de-lance (Eng.; DAV); Halbou (Creole; Guy.; GMJ); Hierba del Jergón (Bol.; Peru; Sp.; DLZ; LOR; MDD); Hombrón (Cr.; JFM); Hurignpe (Amarakaeri; MD2); Jararaca (Brazil; MPB; RAI); Jararaca Mirim (Brazil; MPB); Jararaca Taia (Brazil; MPB); Jararacataja (Por.; GMJ); Jararaca Tajá (Brazil; MPB); Jararassamirí (Brazil; RAR); Jergoncillo (Peru; RAR); Jergón Sacha (Bol.; Peru; Que.; Sp.; DLZ; LOR; MDD; RAR); Kinotata Taya (Boni; GMJ); Machacuiborbon (Peru; SOU); Mágoro (Matsigenka; MD2); Masas Uukwey (Palikur; GMJ); Meycala (Wayãpi; GMJ); Milho de Cobra; Radiè Serpent (Creole; Guy.; GMJ); Rale Bois (Creole; Guy.; GMJ); Ronon Rao (Shipibo/Conibo; MD2); See (Ese'ejá; MD2); Serpentère (Creole; Guy.; GMJ); Shandó Rao (Amahuaca; MD2); Shanvi Rao (Shipibo/Conibo; MD2); Shi Shutushese Hê'pa (Kofan; SAR); Tajá de Cobra (Brazil; MPB; RAR); Tkabe-Kli (Cr.; JFM); Uukwey (Palikur; GMJ); Yerba del Jergón (Peru; RAR; SOU).

### Activities:

Anthelmintic (f; JFM; RAI); Antiasthmatic (f; MPB); Antidote (f; RAI; RAR); Antidote (curare) (f; RAI); Antidote (spider) (f; RAI); Antidote (stingray) (f; RAI); Antiinflammatory (f; RAI); Antiophidic (f; RAI); Antioxidant (1; 60P); Antiradicular (1; 60P); Antispasmodic (f; EB23:108; MPB); Antitussive (f; RAI); Antivenom (f; RAI); Antiviral (f; RAI); Caustic (f; MPB); Emmenagogue (f; RAR; WOI); Herbicide (f; RAR); Herpetofuge (snake-repellant) (f; DAV); Immunostimulant (f; RAI); Larvicide (f; MD2); Stimulant (f; EB23:108); Toxic (f; MPB); Verrucolytic (f; DLZ); Vulnerary (f; RAR).

### Indications:

Abscesses (f; MD2); Amenorrhea (f; MPB); Asthma (f; EB23:108; MPB; SAR); Boils (f; MD2); Botfly (f; MD2); Cancer (f; RAI); Cardiopathy (f; RAI); Chlorosis (f; MPB; RAI); Coughs (f; RAI); Dermatitis (f; MPB; RAI); Diarrhea (f; SAR); Dysmenorrhea (f; RAI); Enterosis (f; RAI); Gastrosis (f; RAI); Gout (f; MPB; RAI); Hemorrhoids (f; EB23:108); Hernia (f; RAI); Herpes (f; RAI); HIV (f; JAD); Infection (f; RAI); Inflammation (f; RAI); Oliguria (f; RAI); Palpitations (f; RAI); Pertussis (f; MPB; RAI); Scabies (f; MPB; RAI); Shakes (f; DAV); Shingles (f; RAI); Snake Bite (f; DAV; EB23:108; JFM; MD2; RAI; SAR); Sores (f; MPB; RAI); Spasms (f; EB23:108; MPB); Spider Bites (f; RAI); Swelling (f; JFM); Tremors (f; RAI); Viruses (f; RAI); Warts (f; DLZ); Worms (f; JFM; RAI); Wounds (f; RAR; 60P).

### Dosages:

FNFF = ? Lacaze and Alexiades (1995) say the tuber can be eaten toasted. 2–3 g rhizome capsule/tablet 2–3×/day (RAI); 3–5 ml rhizome tincture 2×/day (RAI).

- Bolivians suggest caustic leaf latex to remove warts (DLZ).
- Brazilians use for asthma, bugbite, chlorosis, dermatitis, dysmenorrhea, gout, pertussis, snake bite, sores, and worms (RAI).
- Ecuadorian Koran take tuber decoction for diarrhea; others for snake bite (RAI; 60P).
- Ese'ejá use whole plant decoction to wash wounds of snake bite (60P).
- Guyanans use as an antidote to curare, snake, spider, and stingray (RAI).
- Loreto guides of Peru and shamans heat the tuber and poultice onto snake bite to suck out the poison (JAD).
- Madre de Dios Peruvians plaster grated tuber with tobacco leaf to kill botfly larvae (MD2).

- Mexicans use for oliguria and snake bite (JAD).
- Panamanians use for snake bite (RAI).
- Peruvians grind tuber into a paste, heat in *Calathea* leaves, and poultice onto snake bite, or heat 1 teaspoon crushed leaves with water for 2 min; place over bite 3×/day (SAR).
- Peruvians use for cancer, diarrhea, enterosis, gastrosis, hernia, herpes, HIV, immunodepression, palpitations, tremors, tumors, and virus (RAI).

**Downsides:**

Species not covered (KOM; PH2; TRA). None reported by Taylor (RAI).

**WINTER'S-BARK (*Drimys winteri* J.R. Forst.& G. Forst.) +****WINTERACEAE****Illustrations:**

p 341 (MPB); p 574 (MPG)

**Synonyms:**

*Drimys chilensis* DC.; *D. granadensis* var. *peruana* A.C. Smith; *D. granatensis* L. f.; *D. mexicana* Moc. & Sesse; *D. montana* Mier.; *D. winteri* var. *chilensis* (DC.) A. Gray; *Winterana aromatica* Sol. ex Foth.; *W. romantica* Sol.

**Common Names:**

Acataia (Ma.; JFM); Aji Canella (Col.; IED); Aktarçin (Tur.; EFS); Boigue (Chile; MPG); Boique (Chile; MPG); Caataya (Brazil; MPG); Canela (Peru; EGG); Canela Amarga (Brazil; MPB; MPG); Canela de Paramo (Col.; IED; JFM); Canelo (Chile; Sp.; EFS; MPG); Canelon Silvestre (Ma.; JFM); Capororoca Picante (Brazil; MPB; MPG); Carne d'Anta (Brazil; MPG); Casca de Anta (Brazil; MPB; MPG; RA2); Casca de Winter (Brazil; MPG); Cataia (Brazil; MPB); Chachaca (Mex.; JFM; PCS); Chile (Cr.; IED; JFM); Chilillo (Mex.; JFM; PCS); Cupis (Col.; IED.; JFM); Echte Wintersbast (Dutch; EFS); Echte Wintersrinde (Ger.; EFS); Ecorce Vraie de Winter (Fr.; EFS); Foiye (Chile; MPG); Fuñe Boighe (Chile; MPG); Magellanische Zimt (Ger.; EFS); Melabo (Brazil; JFM; MPG); Muelo (Cr.; IED; JFM); Palo de Aji (Col.; Ma.; IED; JFM); Palo de Chile (Mex.; JFM; PCS); Palo Picante (Mex.; JFM; PCS); Paratuda (Brazil; MPG); Pauparatuda (Brazil; MPG); Pepperbark (Eng.; RA2); Quiebra Muelas (Cr.; IED); Quinon (Col.; IED; JFM); True Winterbark (Eng.; EFS); Tuerto del Tocuyo (Ma.; JFM); Winter's-Bark (Eng.; CRC; JFM; USN); Winter's Cinnamon (Eng.; EFS); Winter Verdadero (Sp.; EFS). (Nscn).

**Activities:**

Analgesic (f1; FNF; PR14:401; X122437631; X9849632); Antiallergic (f1; X9849632); Antiedemic (f; PR14:401); Antiemetic (f1; RA2); Antifeedant (1; X15759420); Antiinflammatory (1; MPG; X9849632); Antileukemic (1; JFM; MPG); Antiscorbutic (f; EFS); Antiseptic (1; MPG); Antispasmodic (f; MPB); Antitumor (1; JFM); Astringent (f1; EFS); Bactericide (1; MPG); Bitter (1; PH2); Candidicide (1; MPG); Carminative (f1; EFS; PH2); Digestive (f1; RA2); Fungicide (1; MPG); Insecticide (1; MPG); Orexigenic (f; JFM); Secretolytic (f1; RA2); Stimulant (f; EFS); Stomachic (f1; EFS; HHB; PH2); Sudorific (f; MPG); Tonic (f1; MPG; PH2).

**Indications:**

Adenopathy (1; MPG); Allergies (f1; PR14:401; X9849632); Anemia (f; MPG); Anorexia (f; JFM); Aphtha (f; EGG); Arthrosis (f; MPG); Asthma (f; PR14:401); Bacteria (1; MPG); Cancer (1; JFM; JLH; MPG; RA2); Candidiasis (1; MPG); Catarrh (f; MPB); Circulosis (f; MPG); Colic (f; PH2); Constipation (f; JFM); Cramps (f; MPB); Debility (f; MPB; MPG); Dermatosis (f; PH2); Diarrhea (f; MPG); Dysentery (f; MPG); Dyspepsia (f; PH2); Edema (f; PR14:401); Enterosis (f; MPG); Fever (f; MPG); Fungus (1; MPG); Gas (f1; EFS; PH2; RA2); Gastro-



sis (f; JFM; MPG); Infection (1; MPG); Inflammation (1; MPG; X9849632); Leukemia (1; FNF; JFM; MPG); Malaria (f; RA2); Nausea (f1; RA2); Pain (f1; FNF; PR14:401; X12243763; X9849632); Respirosis (f; MPG); Rheumatism (f; MPG); Scurvy (f1; JFM; MPG); *Staphylococcus* (1; MPG); Stomachache (f1; JFM; MPG; PH2; RA2); Toothache (f1; JFM; PH2); Yeast (1; MPG).

#### Dosages:

FNFF = !! Steep 1 leaf in 1 cup boiling water 5 min, sweeten to taste (MPG); 1 cup bark tea 2–3×/day (RA2).

- Brazilians consider the plant as febrifuge, stimulant, stomachic, sudorific, and tonic, taking for anemia, colic, constipation, debility, diarrhea, dysentery, enterosis, fever, gastrostis, nausea, respiratory distress, and stomachache (JFM; MPG; RA2).
- Brazilians sometimes substitute the bark for quinine in treating malaria and other fevers (RA2).
- Chileans boil some bark and leaves in water, sipping during the day for scurvy (MPG).
- Chileans steep a leaf in boiling water 5 min, with honey, as a stomachic tonic (MPG).
- Chileans take long baths in warm decoction for rheumatism (MPG).
- Chileans use tincture (steep 100 g bark and leaf in ½ liter alcohol 1 week) for circulatory disorders and rheumatism (MPG).
- Colombians give salted bark powder to cattle to stimulate appetite (JFM).
- Costa Ricans chew the bark for toothache (JFM).
- Mexicans suggest the plant for dysentery, scurvy, stomach problems, and toothache (PCS; RA2).
- Venezuelans suggest the bark as orexigenic, stimulant, and tonic (JFM; RA2).

#### Downsides:

Not covered (AHP; KOM). None reported (PH2). As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

#### Extracts:

Hydroalcoholic extract antiallergenic, antiinflammatory, and antinociceptive. Polygodial and 1-beta-(p-methoxycinnamyl) polygodial were antinociceptive (ipr and oral mice), more potent than aspirin and acetaminophen (X9849632). The sesquiterpene drimaniol, isolated from the bark, showed antinociceptive activity in mice at peripheral, spinal, and supraspinal sites (X12243763). Taxifolin active against lymphocytic leukemic (MPG).

Polygodial: analgesic (FNF), antifeedant (450), antinociceptive (X9849632), antiseptic (JNP56:1539), bactericide MIC = 125–2000 µg/ml (JAF40:2330), candidicide MIC = 4–7 µg/ml (JAF40:2330), cytotoxic (PM57:344), fungicide MIC = 2–8 µg/ml (JAF40:2330), helicide, molluscicide (382), and piscicide.

## GOLDEN DEWDROP (*Duranta erecta* L.) + VERBENACEAE

#### Illustrations:

p 150 (DLZ)

#### Synonyms:

*Duranta ellisia* Jacq.; *D. plumieri* Jacq.; *D. repens* L.; fide (USN).

#### Common Names:

Adonis (Col.; Dom.; Wi.; AHL; AVP); Adonis Blanco (Col.; AVP); Adonis Morado (Ma.; JFM); Angel's Whisper (Eng.; JFM); Azota Caballo (Pr.; Sp.; AVP); Bois Jambette (Haiti; AHL);

AVP); Capocoche (Ma.; JFM); Celosa (Cuba; AVP); Celosa Cimarrona (Cuba; AVP); Chinchorro (Ven.; JTR); Chulada (Sal.; AVP); Coralillo Amarillo (Ma.; JFM); Coralillo Rosado (Ma.; JFM); Corazón de Paloma (Dor.; AHL); Cuenta de Oro (Pr.; AVP); Espino Blanco (Mex.; AVP); Espino de Paloma (Pan.; AVP); Espino Negro (Col.; AVP); Fruta de Chivo (Dor.; AHL); Fruta de Iguana (Ma.; JFM); Fruta de Paloma (Dor.; Ven.; AHL; AVP); Garboncillo (Cuba; Sp.; AVP; JTR); Golden Dewdrop (Eng.; CR2; USN); Grao de Galo (Por.; JFM); Guapante (Col.; AVP); Heliotropio (Sal.; AVP); Hombo Coché (Mex.; AVP); Jia Lian Qiao (Pin.; DAA); Lila (Pr.; AVP); Limoncillo (Ven.; AVP); Limoncillo Cimarrón (Dor.; AHL); Lluvia (Pr.; AVP); Lora (Sp.; JFM); Maíz Boulli (Haiti; AVP); Melero (Sp.; JFM); No me Olvides (Sp.; AVP); Pensamiento (Nic.; AVP); Persian Lilac (Eng.; JFM); Pigeon-Berry (Wi.; USN); Poison Macca (Ma.; JFM); Skyflower (Eng.; USN); Tala Blanca (Arg.; AVP; JFM); Tanqar (Bol.; Que.; DLZ); Vanilla (Ma.; JFM); Varita de San José (Pan.; AVP); Vergeet-My-Nie-Boom (Afrikaan; USN); Villa Fermín (Haiti; AHL); Violetina (Cuba; AVP). (Nscn).

**Activities:**

Alpha-Glucosidase (1; X15256696); Antioxidant (1; X16372377); Antiradicular (1; X16372377); Antithrombic (1; X11964000); Detergent (f; CRC; JTR); Diuretic (f; CRC; DLZ); Febrifuge (f; CRC; JFM); Insecticide (f1; CRC; JFM); Larvicide (f1; CRC; JFM); Mosquitocide (1; JFM); Poison (1; CRC); Stimulant (f; CRC; DLZ; JFM; JTR); Toxic (1; CRC; JFM; X17359477).

**Indications:**

Fever (f; CRC); Malaria (f; CRC); Varicosis (f; CRC).

**Dosages:**

FNFF = X

- Guatemalans and Mexicans take flora decoction as stimulant, the fruit decoction as febrifuge (JFM).
- Venezuelans use the saponin-containing plant as detersive and stimulant (JFM; JTR).

**Downsides:**

Not covered (AHP; KOM; PHR). "Berries contain a saponin causing drowsiness, fever, nausea, vomiting, and convulsions. Deaths of children from eating the berries are recorded" (JFM). "Symptoms include sleepiness, hyperthermia, dilated pupils, rapid pulse, swelling of lips and eyelids, and convulsions" (CRC). Grazing has killed pigs (JFM). Cases of dog and cat poisonings from ingesting leaves and fruit reported, with symptoms of gastric and intestinal hemorrhage, diarrhea, drowsiness, hyperaesthesia, melaena, tetanic seizures, and vomiting (X17359477). As of July 2007, the FDA Poisonous Plant Database listed 30 titles alluding to toxicity of this species.

**Extracts:**

Acteoside was antioxidant (IC50 = ca. 3 µg/ml) while lamiide and pseudo-ginsenoside-RT1 were not active (X16372377).

**EPAZOTE (*Dysphania ambrosioides* (L.) Mosyakin & Clemants) +  
CHENOPODIACEAE**

**Illustrations:**

fig 67 (DAV); p 198 (AAB)

**Synonyms:**

*Chenopodium ambrosioides* L; *C. ambrosioides* var. *anthelminticum* (L.) A. Gray; *C. anthelminticum* L.

**Notes:**

In the Afro-Brazilian Candomblé religion, the plant is associated with the deities Xangô and Iansa (VOD).

**Common Names:**

A'apoa (Wayãpi; GMJ); Achich (Ma.; JFM); Amash (Peru; EGG); Ambroisie (Fr.; BOU); Ambrósia (Brazil; MPB); Ambrósia de Mexico (Mex.; MPB; MPG); Ambroisie du Mexique (Fr.; BOU); American Wormseed (Eng.; Ocn.; AH2; USN); Amerikaaritasa (Japan; KAP); A Mhu Hum (Tzeltal; MPG); Amush (Peru; EGG; SOU); Anserina (Peru; EGG); Anserina Vermifuga (Brazil; MPG); Anserina Vermifuga (Por.; USN); Anserine Anthelminthique (Haiti; AVP); Apasote (Bel.; Brazil; Cr.; Cuba; Guat.; His.; Nic.; AHL; BNA; JTR; MPG); Apazote (Guat.; JFM; USN); Apezote (Sal.; MPG); Apozote (Sp.; USN); Bathua (Yunani; KAP); Bathu Sag (Ben.; KAP); Bersiana (Arab.; BOU); Betu (Tamang; NPM); Bitia (Zapotec; MPG); Bitter Weed (Ma.; JFM); Boldo (Guad.; AVP); Caa ne (Arg.; MPG); Camatai (Peru; SOU); Camatay (Bol.; DLZ); Caré (Bol.; DLZ); Carey (Bol.; DLZ); Cashiva (Peru; EGG; MPG); Cashua (Peru; EGG; MPG); Cha de Espaha (Brazil; MPG); Chá de los Jesuitas (Arg.; MPG); Cha do Mexico (Ma.; JFM); Chandanbatva (Mah.; NAD); Chenopode (Haiti; AHL); Chenopodio (It.; AVP); Chih Khorassany (Arab.; AVP); Chisikbol (Garó; WO2); Cuatsitasutats (Purepacha; MPG); Culen (Chile; DEP); Cytwar (Pol.; AVP); Cytwarowe Nasiene (Pol.; AVP); Epasote (Ma.; JFM); Epazote (Bel.; Mex.; Scn.; Sp.; AH2; BNA); Epazote Morado (Mex.; MPG); Epazote Morillo (Mex.; MPG); Erva de Formigueira (Por.; GMJ); Erva de Mastruz (Por.; GMJ); Erva de Santa Maria (Brazil; MPG; USN); Feuilles à Vers (Haiti; AHL; AVP); Formiguera (Ma.; JFM); Fruminga (Ma.; JFM); Gaensefuss (Ger.; AVP); Hatua (Hindi; WO2); Hedge Mustard (Ma.; JFM); Herbe à Vers (Guad.; Haiti; AHL; AVP); Herva Ambrosia (Ma.; JFM); Herva das Lombrigas (Ma.; JFM); Herva de Santa Maria (Ma.; JFM); Herva no Mexico (Ma.; JFM); Herva Vomquiera (Ma.; JFM); Hierba de los Serpientes (Arg.; MPG); Hierba de Santa María (Sp.; EGG); Hierba Hormiguera (Sp.; USN); Hierba Lobriguera (Sp.; AVP); Hipazote (Mex.; MPG); Hormiguera (Ma.; JFM); Hyang Hamo (Nepal; KAP); Ipazote (Hon.; MPG); Jangli (Kas.; MKK); Javind (Kas.; MKK); Jerba di Froeminga (Ma.; JFM); Jerusalem Bush (Ma.; JFM); Jerusalem Oak (Ma.; JFM); Jerusalem Parsley (Ma.; JFM); Jerusalem Tea (Eng.; USN); Jesuiten Tee (Ger.; AVP); Kaaduvoma (Kan.; WO2); Kamonkila (Congo; AVP); Kanumkeila (Congo; AVP); Kattasambadam (Tam.; WO2); Kattayamodagum (Mal.; WO2); Katu Ayamoddakam (Mal.; WOI); Kawissey (Palikur; GMJ); Keresenemenumba (Nagaland; SKJ); Khatua (Hindi; WO2); Khorasana (Tur.; AVP); Kshetravastuka (Sanskrit; WO2); Kutu Ayamodakam (Mal.; NAD); Lukanga Nioka (Congo; AVP); Lukimixiu (Mex.; MPG); Lukum Xiu (Mex.; AVP); Maskfrae (Swe.; AVP); Mastruço (Por.; AVP; EGG; MPB; USN); Mastruz (Brazil; EGG; X8701041); Matri (Por.; AVP); Matrutz (Por.; AVP); Mentrutz (Peru; EGG); Mexican Goosefoot (Eng.; BOU); Mexican Tea (Eng.; Jam.; Ocn.; AH2; AVP; BOU; NPM); Mexican Weed (Bel.; Eng.; AAB); Mexikanischer Tee (Ger.; USN); Minu (Mixtec; MPG); Mkheinza (Ber.; BOU); Natna (Arab.; BOU); Paicco (Peru; EGG; SOU); Paico (Arg.; Bol.; Col.; Ecu.; Pan.; Peru; Sp.; Uru.; EGG; IED; MPG); Paico Macho (Arg.; Uru.; MPG); Paiko Nume Mba Se Hé Pa (Kofan; SAR); Paiku (Peru; EGG); Pasare Bethi (Nepal; NPM); Pasota (Ma.; JFM); Pasote (Wi.; JFM; JTR); Payco (Peru; SOU); Payko (Piro; Yine; MD2); Payqo (Aym.; Que.; DLZ); Pazote (Cr.; MPG; USN); Pookalachili (Mal.; WO2); Poudre aux Vers (Creole; Guy.; GMJ); Pozote (Peru; EGG); Qataf (Arab.; KAP); Quenopodio (Brazil; Spain; MPB; VAD); Rato Latte (Nepal; NPM; SUW); Sagrada (Ma.; JFM); Santonico (It.; Sp.; AVP); Sarmaq (Iran; KAP); Scho Kraut (Ger.; KAP); Semen Contra (Dor.; Haiti; Sp.; AHL; AVP; VOD); Semenzina (It.; AVP); Semesanto (It.; AVP); Semicontra (Ma.; JFM); Semin Contra (Dor.; Sp.; AHL); Shuppujuic (Popoluca; MPG); Sianama (Arab.; BOU); Sie Sie (Ese'èja; EGG; MD2); Simin Contra (Creole; Guy.; GMJ); Simón Contegras (His.; AHL); Spanish Tea (Eng.; USN); Stani (Totonaco; MPG); Stinking Weed (Eng.; AVP); Stinkweed (Ma.; JFM);

Sugandhavastuk (Sanskrit; KAP); Sughavastuk (Hindi; KAP); Sweet Pigweed (Eng.; DEP); Te (Spain; X15763359); Té de los Jesuitas (Arg.; MPG); Té de Mexico (Mex.; MPG); The du Mexique (Fr.; Guad.; AVP; BOU); Tiene Minti (Sur.; AVP); Tiengie Mentie (Ma.; JFM); Tij Tzan (Huasteco; MPG); Tu Jing Jie (Pin.; AH2); Uahaibiaya (Ma.; JFM); Vara de Estericol (Mex.; MPG); Viteya (Mex.; MPG); Wasi Iko (Siona; SAR); Wayna Wayna (Que.; DLZ); West Indian Goosefoot (Eng.; Ma.; JFM); Wohlriechender Gänsefuß (Ger.; USN); Worm Bush (Ma.; JFM); Worm Grass (f; NPM); Wormseed (Eng.; BOU; NPM); Wormweed (Ma.; JFM); Wormwood (Ma.; JFM); Worong Mentie (Ma.; JFM); Wurmsamen (Ger.; AVP; USN); Yerba del Zorrillo (Mex.; MPG); Yerba de Santa Maria (Arg.; MPG); Yerba Sagrada (Ma.; JFM); Yerba Santa (Ma.; JFM); Zorbeih (Arab.; BOU). (Diacritically prepared).

### Activities:

Abortifacient (f; CRC; PH2; WBB; ZUL); Acaricide (1; MD2; X15384350); Amebicide (1; CRC; MPG); Analgesic (f1; CRC; TRA); Antemetic (f; EGG); Anthelmintic (f1; BOU; PHR; PNC; TRA; 60P); Antiaflatoxicogenic (1; X17174000); Antiasthmatic (f; PH2); Anticancer (1; X16307762); Antifeedant (f; ZUL); Antiinflammatory (f; VOD); Antileishmanic (f1; X16636536; X17254746; X8701041); Antimalarial (1; TRA); Antioxidant (1; X16307762; X17174000); Antiseptic (f1; AHL; EGG; ZUL; 60P); Antispasmodic (f; BOU; CRC; DEP; JTR; WBB; WO2; ZUL; 60P); Antitumor (1; X16307762); Antitussive (f; CRC; EGG); Antiulcer (1; MPG; TRA; 60P); Apifuge (1; ZUL); Ascaricide (1; AAB; CRC); Bactericide (1; TRA); Carcinogenic (1; AAB; TRA); Cardiodepressant (1; MPG; TRA); Cardiotonic (f; ZUL); Carminative (f1; BOU; CRC; DAV; FAD); Contraceptive (f; DAV; EGG; SAR); Cytotoxic (1; X16219440); Decongestant (f; DAV); Depurative (f; DAV); Diaphoretic (f; CRC; WBB; ZUL); Digestive (f; BOU; VOD); Diuretic (f; CRC); Emmenagogue (f; BOU; CRC; DEM; JFM); Febrifuge (f; BOU; DEM); Fungicide (f1; AAB; TRA; X17174000; 60P); Genotoxic (1; X16219440); Hepatoprotective (f; EGG); Hypotensive (1; TRA; 60P); Insecticide (1; CRC; TRA; X15384351); Lactagogue (f; BOU; CRC); Myorelaxant (1; MPG; TRA; 60P); Narcotic (f; CRC); Nematocide (f1; GMJ; JE92:215; X17588325); Nervine (f; CRC); NO-genic (1; X17156956); Panacea (f; DEM); Paralytic (1; PHR); Parasiticide (f; VOD); Pectoral (f; WO2); Plasmodicide (1; WO3); Poison (1; CRC; JFM); Protisticide (1; TRA); Purgative (f; DAV); Respirostimulant (1; MPG; TRA); Sedative (f; AAB); Snake Repellent (f; ZIM; ZUL); Spasmogenic (1; PHR); Stimulant (f; BOU; CRC; PH2); Stomachic (f; BOU; CRC; HHB; JFM; VOD; ZIM); Sudorific (f; CRC); Tonic (f; CRC; DEM; DEP; HHB); Tumorigenic (1; X625070); Vermifuge (f12; FAD; PHR; VOD; ZUL).

### Indications:

Abscesses (f; EGG; RAR); Amebiasis (12; CRC; FAD; IED; KAP); Amenorrhea (f; CRC); Anemia (f; CRC; WO2; ZUL); Angina (f; MPB); Apoplexy (f; DLZ); Appendicitis (f; CRC; JFM); Arthrosis (f; CRC; DAV; EGG); Asthma (f; IED; MPG; PH2; 60P); Athlete's Foot (f; EGG); *Bacillus* (1; WO2); Bacteria (1; JE66:347); Bites (f; CRC; JFM; MPG); Bleeding (f; PH2); Bronchosis (f; VOD); Bruises (f; EGG; JFM); Burns (f; JFM); Cancer (f1; JLH; X16307762; X17707603); Cancer, eye (f; JLH); Cancer, uterus (f; JLH); Caries (f; RAR); Chest Ache (f; DEM; ZIM); Childbirth (f; CRC; JFM); Cholera (f; DAV); Chorea (f; JFM); Colds (f; ZUL); Colic (f; CRC; JTR; MD2; MPG; ZUL); Conjunctivitis (f; AHL; VOD); Convulsions (f; VAG; ZIM; ZUL); Coughs (f; EGG; MPG; WO2; ZUL); Cramps (f; BOU; DAV; PH2; ZUL); Delirium (f; ZIM); Dermatophyte (f; CRC); Dermatitis (f; CRC; DAV; MPG; 60P); Diarrhea (f; TRA); Dislocation (f; JFM); Dysentery (f; CRC; KAP); Dyslactea (f; BOU); Dysmenorrhea (f; CRC; MPG); Dyspepsia (f1; CRC; DAV; JFM); Dyspnea (f; CRC; JFM); Dysuria (f; JFM); Eczema (f; PH2; ZUL); Enterosis (f; CRC; EGG; MKK; WO2); Epilepsy (f; DLZ); Erysipelas (f; HHB; ZUL); Fatigue (f; CRC); Fever (f; BOU; VAG; ZIM; ZUL); Flu (f; DAV); Fracture (f; EGG; JFM); Fungus (f1; CRC; EGG; X17174000); Gas (f1; FAD; FNF; JFM); Gastralgia (f1; TRA); Gastrosis (f; DEM; EGG; NPM; TRA); Gonorrhea (f; DEM); Gout (f; DAV); Guinea

Worm (1; WO2); Hangover (f; AAB); Headache (f; DEM); Hemiplegia (f; DLZ); Hemorrhoids (f; DAV; EGG; MPG; JTR; 60P); Hepatosis (f; DLZ; TRA); High Blood Pressure (1; MPG; 60P); Hookworm (f12; CRC; FAD; KAP); Hyperacidity (f; EGG); Hysteria (f; DAV; WO2); Induration (f; JLH); Infection (1; JE66:347; ZUL; 60P); Inflammation (f; MPG; 60P); Insanity (f; VAG); Insomnia (f; AAB; ZUL); Jaundice (f; DLZ); Laryngitis (f; DAV); Laziness (f; DEM); *Leishmania* (f1; X16636536; X17254746; X8701041); Leprosy (f; ZUL); Madness (f; ZIM; ZUL); Malaria (f1; MPG; TRA; WO2; WO3 60P); Measles (f; CRC; JFM; ZUL); Metrorrhagia (f; PH2); Mycosis (f1; CRC; EGG; TRA; X17174000; 60P); Nausea (f; EGG); Nematode (f1; JE92:215; X17588325); Nephrosis (f; 60P); Nervousness (f; DEM); Neurosis (f; CRC; MPG; ZUL); Ophthalmia (f; JLH); Pain (f1; CRC; JFM; TRA; VAG; ZUL); Palpitations (f; CRC; JFM); Paralysis (f; PH2); Parasites (f1; AAB; AHL; HHB; JFM; TRA; VOD); *Plasmodium* (1; WO3); Proctorrhagia (f; CRC; JFM); *Pseudomonas* (1; WO2); Puerperium (f; CRC); Pulmonosis (f; EGG); Rheumatism (f; CRC; DEM; EGG; PH2); Roundworm (f12; CRC; FAD; KAP; PHR); Smallpox (f; ZUL); Sores (f; CRC; TRA; WO2; X8701041); Spasms (f; JTR); Splenomegaly (f; ZUL); *Staphylococcus* (1; WO2); Stings (f; MPG); Stomachache (f; DAV; EGG; JTR; TRA; WO2; ZUL; 60P); Swelling (f; DEM; EGG); Tapeworm (2; FAD; PHR); Toothache (f; CRC; DEM; JFM); Trypanosomiasis (1; JNP65:509); Tuberculosis (f1; DAV; JE66:347); Tumors (f1; CRC; DAV; X16307762; X17156956); Ulcers (f1; MPG; NPM; TRA; WO2; ZUL; 60P); Urethrosis (f; EGG); Uteralgia (1; VAG; ZIM; ZUL); VD (f; DEM); Worms (f; BOU; CRC; DEM; MD2); Wounds (f; MD2).

### Dosages:

FNFF = ! Though often listed as an edible potherb, as an anti-gas spice in soups and salsas, or used in preparation of hot pepper sauces, etc., I'd use very sparingly! Topically applied in hemorrhoids (SOU). 1 g (HHB); 2–4 ml liquid extract (PNC); 0.03–0.1 g fresh shoots/kg/day, no more than 3 days; not more often than once every 6 months (TRA); 1–4 g powdered seed (PNC); 4 tsp powdered seed at bedtime, for 4 days, as anthelmintic (NPM) (much too much for safety (JAD)). Adult dosage: 20 drops in a.m. on empty stomach followed by purgative in 2 hr (PH2); pediatric dose: 1 drop for each year of age, repeat in 1 hr (PH2).

- Afro-Brazilian Candomblé take leaf juice or tea for hysteria and internal pain (VOD).
- Belizeans boil root of 1 large plant 10 min in 2 cups water for hangover (“crudo”) (AAB).
- Belizeans take hot leaf tea as sedative (AAB).
- Cubans use as anthelmintic, antispasmodic, hemostat, stomachic, and vermifuge, for colic and stomachache (JTR).
- Haitians rub the shoot onto the skin to kill parasites (VOD).
- Haitians use the shoot infusion as a digestive and stomachic (VOD).
- Madre de Dios Peruvians wash wounds with paico and tobacco tea (MD2).
- Mexicans infuse 20 g leaves in a 1 liter water as diuretic, emmenagogue, sudorific, and vermifuge (JFM).
- Nepalese suggest ca. 4 tsp seed for 4 days for worms (NPM).
- New Mexican Latinas take leaves with salt as abortifacient or for postpartum pain (JFM).
- Nigerians paste leaves and seeds in palm oil on guinea worm (WO2).
- Peruvians apply the leaves topically to arthritis (EGG).
- Peruvians suggest the leaf tea for acid stomach, diabetes, dysmenorrhea, gas, hemorrhoids, and rheumatism (EGG).
- Peruvians take decoction for colds, colic, gastrostis, urethrosis, and worms (EGG; MD2; SOU).
- Tikuna take root/shoot decoction during menopause each month as contraceptive (SAR).

- Venezuelans bathe with plant decoction to reduce fever (JFM).
- Yucatanese use the plant for asthma, catarrh, chorea, and other neuroses (JFM).

**Downsides:**

Not covered (AHP; KOM). Overdose can cause convulsions, dizziness, headache, vomiting, even death (PNC). The herbal *Physicians Desk Reference* cites cases of death ... following intake of 10 mg of the oil (much less for children) (PHR). Even therapeutic dosages can cause CNS disturbances (pachymeningitis haemorrhagica, signs of paralysis, spasms). Damaged nervus cochlearis may lead to tinnitus and hearing impairment (lasting for years) (PHR). Contact allergen (FAD). Foster suffered vertigo after harvest (FAD). Though alleged to prevent gas, wormseed oil is said to be explosive (PHR). Reading the warnings tempted me to score this XXX for safety, but I have used it many times as a precarminative in bean soup. And it is suggested that traditional usage of whole herb as a vermifuge is safer than the EO or synthetic or pure ascaridole (JE92:215).

**Extracts:**

Hydroalcoholic leaf extract exhibited potent antitumor activity even in small doses and also within two days of tumor implantation (X16307762). Extracts were active against drug-resistant *Mycobacterium tuberculosis* (0.1 mg/ml) (JE66:347). Leaf EO antiaflatoxic against *Aspergillus flavus*, completely inhibiting mycelial growth at 100 µg/ml, while also exhibiting a broad fungitoxic spectrum against *Aspergillus fumigatus*, *A. niger*, *Botryodiplodia theobromae*, *Cladosporium cladosporioides*, *Fusarium oxysporum*, *Helminthosporium oryzae*, *Macrophomina phaseolina*, *Pythium debaryanum*, and *Sclerotium rolfsii*, at 100 µg/ml, and strong antioxidant activity (X17174000). When tested against *Leishmania amazonensis*, it showed potent inhibitory action against promastigote and amastigote forms (50% effective dose of 3.7 and 4.6 µg/ml, respectively) with moderate toxicity on macrophages from BALB/c mice; effective optimal dose 30 mg/kg/day for 15 days i.p. mouse (X16636536). Compounds (-)-(2S,4S)- and (-)-(2R,4S)-p-mentha-1(7),8-dien-2-hydroperoxide (1.2 and 1.6 µM) (-)-(1R,4S)- and (-)-(1S,4S)-p-mentha-2,8-dien-1-hydroperoxide (3.1 and 0.8 µM, respectively) are trypanocidal against epimastigotes of *Trypanosoma cruzi* (ascaridole at 23 µM). These hydroperoxides, an order of magnitude more potent than ascaridole, may be formed via singlet-oxygen oxidation of limonene (JNP65:509). If I were traveling in malaria country and had no *Artemisia annua*, I'd certainly think about this as an antimalarial.

Plants containing ascaridole: *Chenopodium ambrosioides* L. 185–18,000 ppm in the leaf (DUKE1992), *Peumus boldus* Molina 4,000–10,000 ppm in the leaf (DUKE1992), *Vitex agnus-castus* L. 15 ppm in the leaf (JEO2:115) (FNF).

Ascaridole: analgesic, ancylostomicide, anthelmintic, antifatulent, carcinogenic, carminative, fungicide, nematicide, pesticide, sedative, vermifuge (FNF).



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# E

## ECLIPTA (*Eclipta prostrata* (L.) L.) ++

### ASTERACEAE

#### Illustrations:

pl 530 (KAB); p 211 (NPM)

#### Synonyms:

*Eclipta alba* (L.) Haask.; *E. erecta* L.; *E. marginiata* Boiss.; *E. punctata* L.; *Verbesina alba* L.; *V. prostrata* L. (basionym); fide (HH2; USN).

#### Notes:

Frequent users of the PubMed database by now realize that they need to search under old and new scientific names of the plant. It's amazing the difference between the results of a search on *E. alba* and a search on *E. prostrata*, both adding a lot of material to this update. It's a pantropical weed that's looking more and more interesting, even loaded with nicotine, and apparently really useful in snake bite. Chinese and Indians say it will dye gray hair black, and Chinese suggest it makes the hair grow. I'm ready to volunteer for clinical trials. Since it is also a food plant I need it for the *Green Farmacy Garden*, though it is reported as a weed, even here in Maryland (along ditch banks and in waste places throughout). I've been looking for two years and overlooked it so far. It's one of those things you can't find when you want it.

Amazonian alternatives for snake bite: Seeds of the cherimoya, *Annona cherimolia*, may contain 4,000 ppm stigmasterol, and they no doubt contain sitosterol, and probably contain the same astringent tannins found in persimmon seed. I'd try powdered seed on my snake bite were there no competent doctors around. *Casearia sylvestris* is there under the name "ucho caspi." And *Eclipta alba* (with the Peruvian name "naparo cimarron" and the Brazilian name "erva botao") grows by the Amazon just below Polaco's rum factory at Yanomono. If the doctor were out, I might rub these into the bite. Also I would take Antonio's suggestion; applying heated "jergon sacha" (*Dracontium loretanum*) topically, with or without the turmeric a/o "una-de-gato" admixed. Rather fearful of the proteolytic enzymes introduced into the wound, I might drink fig, papaya, or pineapple juice. We can assume that some of the birthworts (*Aristolochia*) around Explorama contain aristolochic acid which is said to inactivate snake venom. As Mors (X1842000) notes, antiinflammatory activity seems to be a property common to many if not all anti-snake bite plants (X1842000). Like probably all Araceae, the "jergon sacha" probably contains the antiinflammatory salicylic acid. Poulced onto the punctured area, the jergon would be providing both internal and transdermal salicylates. Turmeric and "una-de-gato" also contain proven antiinflammatory compounds. These three are in a mixture being clinically studied for antiAIDS activity. The mix might be better studied for snake bite (JAD in HAD).

#### Common Names:

Ajagara (Sanskrit; WOI); Alijar (Nepal; NPM); Antacha (Newari; NPM); Antali (Newari; NPM); Babri (Arab.; Hindi; Pun.; HH2; WOI); Bhangarail (Tharu; NPM); Bhangariya (Danu-



war; NPM); Bhangeri (Nepal; NPM); Bhangra (Guj.; Hindi; Urdu; KAB; WOI); Bharangraj (Arab.; HH2); Bhila (Nepal; KAP; SUW); Bhiringe (Gurung; NPM); Bhiriyo (Nepal; NPM); Bhri-Ga (Tibet; NPM); Bhringaraj (Nepal; Sanskrit; HH2; NPM); Bhringaraja (Ayu.; Sanskrit; AH2; KAP; MPI; OFF; WOI); Bhringaral (Sanskrit; WOI); Bhringe (Nepal; NPM); Bhringraja (Nepal; Sanskrit; ADP; SUW); Bhringuraja (Mar.; ADP; WOI); Boton Blanco (Sp.; JFM); Botoncillo (Sp.; JFM); Bungrah (Hindi; Yunani; HH2; KAP); Cajenneam (Hindi; HH2); Chari Jhar (Chepang; NPM); Congo Lalla (Ma.; JFM); Congo Tala (Ma.; JFM); Dodhak (Guj.; Pun.; HH2; WOI); Eclipta (Eng.; Scn.; ADP; AH2; USN); Eclipta Blanca (Ma.; Pr.; AVP; JFM); Éclipte Blanche (Fr.; USN); Erva Botão (Brazil; Por.; AVP); Erva Lanceta (Por.; AVP); False Daisy (Eng.; Ma.; Ocn.; AH2; FAC; JFM; NPM); Galagara (Tel.; ADP; WOI); Garagadasoppu (Kan.; WOI); Garuga (Tam.; ADP; WOI); Gharauriya (Mooshar; NPM); Guntagalijeru (Tel.; WOI); Gunta-Kalagara (Tam.; NAD); Herbe à l'Eau (Fr.; Guad.; AVP); Hierba del Pescador (Ma.; JFM); Hierba de Tajo (Sp.; USN); Huanguilla (Peru; Sp.; LOR; MDD); Jadah (Iran; KAP); Kadigga-Garaga (Kan.; DEP); Kadim-el-Bint (Arab.; DEP); Kakeshi (Tam.; NAD); Kal Gira (Nepal; NPM); Kalobhangro (Guj.; WOI); Kaluganthi (Guj.; ADP; WOI); Kanni (Hindi; HH2); Kannunni (Hindi; HH2); Kari Salai (Tam.; KAP); Karishalanganni (Tam.; NAD); Karishanganni (Hindi; HH2); Karisirang-Kanni (Tam.; NAD); Kayanthacara (Tam.; WOI); Kesaraja (Sanskrit; ADP; WOI); Kesarda (Oriya; WOI); Kesharaja (Sanskrit; HH2; NAD); Keshori (Ben.; WOI); Keshukti (Ben.; WOI); Kesuri (Ben.; NAD); Kesuria (Ben.; ADP; NAD); Kesuti (Ben.; KAP; WOI); Kikirindi (Sin.; KAP); Kongolala (Ma.; JFM); Kyonni (Mal.; ADP; WOI); Lal Kesari (San.; DEP); Langue Poule (Creole; Guy.; GMJ); Li Chang (China; Pin.; AH2; KAP); Loewisa-Wiwi Ri (Ma.; JFM); Loosa-W'wi Rie (Ma.; JFM); Loso-Wiri (Ma.; JFM); Loso-W-wi Ri (Ma.; JFM); Lug Chhung (Tibet; NPM); Maarkawa (Sanskrit; MPI); Maka (Bom.; Mar.; Pun.; ADP; HH2; NAD; WOI); Malajalam (Hindi; HH2); Mochkand (Hindi; HH2; WOI); Mò Hàn Lián (Pin.; AH2; DAA); Naparo Cimarron (Ma.; Peru; DAV; JFM); Nash Jhar (Nepal; NPM); Neela (Sanskrit; MPI); Radim el Bint (Arab.; HH2); Runput Beu (Burma; KAP); Shobi Isa Sheta (Peru; DAV); Snakebite Plant (Eng.; HAD); Superna (Sanskrit; HH2); Surucuinha (Ma.; JFM); Takasuburó (Japan; KAP; TAN); Tik (Sin.; DEP); Yerba-de-Tago (Ma.; JFM); Yerba-de-Tajo (Ma.; Pr.; AVP; JFM; USN); Zerb a l'Enere (Fwi.; GMJ); Zerb Annuelle (Fwi.; GMJ).

### Activities:

Alexiteric (f; KAB); Alterative (f; KAP); Analgesic (f1; AKT; HH2; KAB; WOI; X10771205); Anthelmintic (f1; KAB; ZUL); Antiaging (f; ADP); Anticonvulsant (1; HH2); Antiedemic (1; HH2); Anti-giardial (1; X15614584); Antihemorrhagic (1; KC2); Antihepatotoxic (1; HH2); Antihyperglycemic (1; X15369623); Antihyperlipidemic (1; X16406413); Antiinflammatory (f1; AKT; JAC7:405; X10771205; ZUL); Anti-ITP (f; JAH2:12); Antimytotoxic (1; KC2); Antiseptic (1; HH2; SUW; ZUL); Antispasmodic (1; ZUL); Antistress (1; X16054316); Antiulcer (1; X16054316); Antivenom (1; X15013200); Antiviral (1; KAP; ZUL); Astringent (1; FAD; JFM); Bactericide (1; DAA; ZUL); Bitter (f; KAB); Bronchodilator (1; X10771205); Candidicide (1; X9784152; ZUL); Cardiotonic (1; ZUL); Cholagogue (f; NAD); Deobstruent (f; DEP; KAB; KAP; SUW; ZUL); Depurative (f; DAV; NPM); Diuretic (f1; JFM; X17472478); Emetic (f; DEP; SUW; ZUL); Energizer (f; NPM); Estrogenic (f; DAA); Expectorant (f; KAB); Febrifuge (f; KAB); Fungicide (1; X9784152); Gastroprotective (1; X16054316); Hemostat (f1; DAA; FAD; GMJ; JFM; NPM); Hepatoprotective (1; AKT; HH2; JAC7:405; X11599347; ZUL); Hepatotonic (f; KAB; KAP; NAD; NPM); HIV-1 Integrase Inhibitor (1; X17696192); HIV-1 Protease Inhibitor (1; X17696192); Hypocholesterolemic (1; X17472478); Hypoglycemic (f1; X15369623); Hypotensive (1; ADP; AKT; X17472478); Immunostimulant (1; FAD; X15185851; X17499515); Larvicide (1; HH2); Lipogenic (f; KAB); Lipoxigenase-Inhibitor (1; ZUL); Myocardiodepressant (f1; ADP); Myorelaxant (f; DAA); Nematocide (f; DAA; HH2); Nootropic (1; X16054316); Phagocytotic (1; X15185851); Philtre (f; ZUL); Phototoxic

(f; DAA); Propepic (f1; AKT; DAA; KAB); Purgative (f; DEP; SUW; ZUL); Refrigerant (f; KAB); Stomachic (f; KAB); Tonic (f; KAB; SUW; ZUL); Trypsin-Inhibitor (1; X12722155).

### Indications:

Abortion (f; KAB); Abscesses (f; FAD); Acne (f; NPM); Adenopathy (f; KAP); Albuminuria (f; DAV; GMJ); Alopecia (f; AKT); Anemia (f; HH2; KAB); Arthrosis (f; KAP); Ascites (1; ADP); Asthma (f; DAV; GMJ; HH2; KAB); Bleeding (f1; DAA; FAD; GMJ; NPM); Bronchosis (f; HH2; KAB); Cancer (1; ADP); *Candida* (1; HH2; X9784152); Carcinoma (1; ADP); Cardiopathy (f1; KAB; ZUL); Catarrh (f; ADP; DEP; FAD; KAB; SUW; WOI); Childbirth (f; ZUL); Cholecystosis (f; NAD); Cirrhosis (f; AKT); Complexion (f; KAB); Conjunctivitis (f; AKT; DEP); Constipation (f; KAB; ZUL); Convulsions (1; HH2); Copremesis (f; DAV); Coughs (f; DAV); Cramps (1; ZUL); Cystosis (f; DAA); Dermatitis (f; KAB; NPM; ZUL); Diabetes (f1; X15369623); Diarrhea (f; HH2; JFM); Dropsy (f; KAB; KAP); Dysentery (f; ADP; FAD); Dyspepsia (f; DAV); Dysuria (f; DEP; NPM); Eczema (f; KC2); Elephantiasis (f; ADP; DAV; KAB; KAP); Enterorrhagia (1; DAV); Enterosis (f; DAA; KAB); Epistaxis (f; DAA); *Escherichia* (1; HH2); Fever (f; KAB; NPM); Fungus (1; DAA; X9784152); Gastrosis (f1; DAA; X16054316); Giardia (1; X15614584); Gingivitis (f; FAD; KAB); Gray Hair (canescence) (f; AKT; BUR; DEP; KAP); Headache (f; DAV; FAD; KAB; NPM); Hematemesis (f; DAA); Hematuria (f; DAA; KC2); Hemicrania (f; KAB); Hepatosis (f12; AKT; DAA; HH2; KAB; NPM; SUW; X11599347; ZUL); Hernia (f; KAB); High Blood Pressure (1; ADP; AKT; X17472478); High Cholesterol (1; X17472478); HIV (f1; X15614584; X17696192); Hyperglycemia (1; X15369623; X17472478); Hyperlipidemia (1; X16406413); Infection (1; DAA; HH2; X15614584; ZUL); Inflammation (f1; KAB; X10771205); Itch (f; KAB); ITP (f; JAH2:12); Jaundice (f12; HH2; KAB; SUW; ZUL); Leprosy (f; GMJ; ZUL); Leukoderma (f; KAB); Lumbago (f; DAV); Malaria (f; ADP); Malnutrition (f; JFM); Marasmus (f; DAV); Migraine (f; AKT); Miscarriage (f; KAB); Mycosis (1; X9784152); Nausea (1; HH2); Nematode (f; DAA); Nyctalopia (f; KAB); Obesity (1; X16406413); Odontosis (f; FAD; KAB); Ophthalmia (f; AKT; DAA; HH2; KAB); Otitis (f; AKT); Pain (f1; ADP; AKT; HH2; KAB; WOI; X10771205); Pertussis (f; DAV; JFM); Pulmonosis (1; HH2); Respirosis (1; HH2; X10771205); Rheumatism (f; KAP); Rhinosis (f; AKT); Shigellosis (1; ZUL); Shoulder (f; ADP); Sinusitis (f; AKT); Snake Bite (f1; X15013200; ZUL); Sores (f1; KAB; SUW; ZUL); Sore Throat (f; JFM); Splenosis (f; KAB; MPI; NPM; SUW; ZUL); *Staphylococcus* (1; HH2); Stings (f; KAB; SUW); Stomatosis (f; KAB); Stress (f1; AKT; X16054316); Swelling (f1; HH2; KAB); Syphilis (f; KAB); Tetanus (f; DEP); Tinnitus (f; AKT); Toothache (f; DAV; FAD; KAB); Tuberculosis (f; DAA; HH2); Ulcers (1; X16054316); Uterosis (f; KAB; KC2); VD (f; KAB); Vertigo (f; AKT; DAV; KAB); Viruses (1; ZUL); Worms (f; ADP); Wounds (f; ADP; KAB; NPM; SUW; ZUL); Yeast (1; DAA; HH2; X9784152).

### Dosages:

FNFF = ! Shoots and leaves cooked, boiled, or oil-roasted, and eaten, e.g., in Africa, Nepal, and the U.S. (JFM; NPM; TAN). 6 tsp juice 4×/day or 2 tsp root juice 2×/day for fever (NPM); 2–8 ml leaf juice (KAP); 4–12 ml leaf tea (KAP); 3–6 g powdered herb (KAP); Chinese dose is 30 g in decoction (KC2).

- Afghans take 1 tsp leaf juice for fever and jaundice, taking 180 grains root with salt for burning urination (DEP).
- Asian Indians boil 2 spoons plant powder in 2 glasses water, taking 1 spoon 2×/day for 6–7 days for malaria (ADP).
- Asians stain gray hair darker with the plant juices (DEP).
- Ayurvedics consider the plant alexipharmic, alterative, and anthelmintic, using it for, e.g., anemia, asthma, bronchosis, cardiopathy, childbirth, complexion, dermatosis, hernia, inflammation, itch, leukoderma, night-blindness, miscarriage, ophthalmia, and syphilis (KAB).

- Barbadians give it to babies with bellies swollen due to malnutrition, thinking the baby needs a diuretic (HAD).
- Brazilians use the plant for respiratory diseases (X10771205), asthma, bronchitis, diarrhea, and snake bite (JFM).
- Chinese rub the plant on the gums to treat toothache (KAB); the herb reportedly protects farmers' hands and feet from rice paddy infections (DAA).
- Créoles rub the leaf decoction on children for skin blemishes, also used for albuminuria (GMJ).
- Gujarati give dry powder as an energizer to the elderly (ADP).
- Guyanan Créoles rub leaf decoction onto skin blemishes, taking it for albuminuria (DAV).
- Hindus use as antidermatitic, deobstruent, and tonic, in hepatic and splenic enlargement (DEP).
- Indians use to treat hepatic diseases and hyperlipidemia (X16406413).
- Nepalese apply root juice to cuts, pimples, and wounds (NPM).
- Nepalese apply seed paste on forehead for headache (NPM).
- Peruvians around Pucallpa take the leaf macerate for headache (DAV).
- Réunion natives consider the plant pectoral, using for asthma, dermatosis, and elephantiasis (KAB).
- Surinamese rub crushed plant on dermatosis, mixing expressed juice of 10 leaves with molasses for sore throat or stomatitis (JFM).
- Thai HIV patients self treat giardia infections with this species (X15614584).
- Thais use for curing blood-related diseases (X17696192).
- Trinidadans take plant decoction for emaciation, malnutrition, and whooping cough (JFM).
- Yunani consider the plant expectorant, febrifuge, and stomachic, using it for fever, headache, hepatitis, pain, splenosis, stomatosis, toothache, and vertigo (KAB).

#### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed six titles alluding to toxicity of this species.

#### Extracts:

Wedelolactone active against HIV-1 integrase (IC<sub>50</sub> = 4.0 ± 0.2 μM), and orobol (IC<sub>50</sub> = 8.1 ± 0.5 μM); 5-hydroxymethyl-(2,2':5',2'')-terthienyl tiglate active against HIV-1 protease (IC<sub>50</sub> of 58.3 ± 0.8 μM), ecliptal (IC<sub>50</sub> = 83.3 ± 1.6 μM), and 5-hydroxymethyl-(2,2':5',2'')-terthienyl acetate (IC<sub>50</sub> = 93.7 ± 0.8 μM) (X17696192). Leaf suspension given orally (2 g/kg body weight rat) for 60 days reduced blood glucose (372.0 ± 33.2 to 117.0 ± 22.8) better than at the higher dosage of 4 g/kg (X15369623). Aqueous extract (300 mg/kg, p.o.) and its hydrolyzed fraction (30 mg/kg, p.o.) nootropic, and also protected against induced gastric ulcer formation and normalized white blood cell count in the milk induced leukocytosis challenge model (X16054316). Methanolic extract anti-giardial, IC<sub>50</sub> <100 μg/ml (X15614584). Butanolic extract at 2.5 mg/mouse completely neutralized *Calloselasma rhodostoma* (Malayan pit viper) venom, but increasing the dose diminished the effect (X15013200). Aqueous leaf extract inhibits myotoxic effects of rattlesnake venom: "The venom, dissolved in saline solution and preincubated with the plant extract, was injected in mice thighs ... All the animals used in the experiment survived ... Similar results were obtained both *in vitro* and *in vivo* with the venoms of three other South American Crotalidae: *Bothrops jararaca*, *B. jararacussu* and *Lachesis muta* ... Assayed in mice ... 50 μg/g of crude extract or 5 μg/g wedelolactone reduced the hemorrhagic response to 4 μg/g *B. jararaca* venom to about one-fifth of its original value. Somewhat less intense inhibition was found with sitosterol and stigmasterol" (X1842000), the latter two more or less ubiquitous (HAD). Wedelolactone and

demethylwedelolactone potent trypsin inhibitors (X12722155). May contain 780 ppm nicotine (WOI). At 200 mg/kg orl mus, the coumarin containing hydroethanolic extract had antinociceptive activity (X10771205). LD50 (hydroethanolic extract) = >1,000 mg/kg orl mus (HH2).

## AFRICAN OIL PALM (*Elaeis guineensis* Jacq.) +++

### ARECACEAE

#### Illustrations:

fig 95B (DAG)

#### Synonyms:

*Elaeis guineensis* var. *madagascariensis* Jum. & H. Perrier; *E. madagascariensis* (Jum. & H. Perrier) Becc.; *E. melanococca* Gaertn.; fide (USN).

#### Notes:

While almost all floras recognize the African and American oil palms as distinct, they have been exchanged both ways as another consequence of the Columbian exchange. I am maintaining two distinct write-ups in the FNF format for the species, but I dare say that natives would use them interchangeably, i.e., generically, as foodstuffs, medicines, etc. I was surprised to read that because of the high palmitic acid content of palm-oil, as also of cotton seed-oil, it has acquired a military value for the production of "Napalm."

*Elaeis oleifera* samples had significantly lower lipase activity compared with *E. guineensis* (var. *tenera*) samples. Even within *E. guineensis* var. *tenera*, there was a wide range of activity. The results confirmed that lipase activity is genotype-dependent. Selection for lipase genotypes is thus possible and this will have obvious commercial value. (X11171201). Unilever was accepting bids on two palm oil estates totaling 23,000 ha and producing 120,000 tons palm oil worth 132 million dollars a year (CMR, Sep. 23, 2002). Europe (mostly Germany) may have biodiesel production capacity of 1.6 million tons per year, increasing to 2.3 million tons in 2003, 10 million tons by 2010. That 10 million tons biodiesel would require 8 million tons vegetable oil. It takes 21 million tons rapeseed to produce 8 million tons vegetable oil (CMR, Sep. 23, 2002).

#### Common Names:

Aaavora (Sur.; KAB); Abair (Twi; KAB); Abbay Tree (Jam.; AVP); Abura Yashi (Japan; POR; TAN); African Oil Palm (Eng.; Pr.; Scn.; AH2; AVP; POR; USN); Afrikaansche Awarra (Dutch; KAB); Afrikaansche Oliepalm (Dutch; KAB); Afrikanische Ölpalme (Ger.; POR); Ak p (Gui.; UPW); Aline (Pahuin; KAB); Aouara d'Afrique (Fr.; KAB); Aouara de Guinee (Fr.; KAB); Aouara des Caraïbes (Fr.; KAB); Arazilair (Nzima; KAB); Avoora (Sur.; KAB); Avouara (Sur.; KAB); Avuara (Sur.; KAB); Bakelo (Gambia; UPW); Bakpa (Togo; UPW); Batana (Garifuna; IED); Bete (Banziri; KAB); Caiaué (Brazil; POR); Chéme (Gui. Bissau; UPW); Coquero de Dente (Brazil; KAB); Corojo de Guinea (Cuba; Sp.; AVP; POR); Corozo (Dom.; AVP); Corozo de Guinea (Cuba; AVP); Crocro (Haiti; AVP); Crocro Guinee (Haiti; AVP); Dau (Vn.; POR); DendL (Brazil; Ocn.; AH2; AVP; RAR); Dendl de Bahia (Brazil; RAR); Dendezeiro (Brazil; AVP); Dihoho (Angola; KAB); Elais de Guinee (Fr.; KAB); Eleide d'Afrique (Fr.; KAB); Eleide de Guinee (Fr.; KAB); Elen (Cameroon; UPW); Enomi (Nig.; UPW); Guineische Oelpalme (Ger.; KAB); Gvineiskaia (Rus.; POR); Gwesu (Lib.; UPW); Kelapa Sawit (Malaya; POR); Kelapa Sawit Bali (Malay; POR); Kèm (Sen.; UPW); Klapa Balek (Malaya; IHB); Kwakwa (Hausa; KAB); Leba (Congo; KAB); Maba (Sur.; KAB); Macaw Fat (Eng.; POR); Maslichnaia Pal'ma (Rus.; POR); Matebbe (Bacongo; KAB); M'bia (Baga; KAB); M'bila (Baffuru; KAB); Mchikichi (Swahili; POR); Miwesi (Swahili; POR); Mjenga (Swahili; POR); Murísi (Garifuna; IED); Nakhlet ez Zayt (Arab.; POR); Ngmetsho

(Ga; KAB); Nie (Sudan; AVP); Nsha (Sierra Leone; UPW); Nté (Sudan; AVP); Obe (Sur.; KAB); Obepalm (Dutch; KAB); Oelpalme (Ger.; KAB); Oila (Gabon; KAB); Oil Palm (Eng.; USN); Oily Palm (Jam.; AVP); Oliepalme (Den.; POR); Oliepalm van Guinea (Dutch; KAB); Oliepalm van West Africa (Dutch; KAB); Oljepalm (Swe.; POR); Öljypalmu (Fin.; POR); Ölpalme (Ger.; USN); Paam Nam Man (Thai; POR); Palma Africana (Ecu.; Pan.; Sp.; DAG; IED; POR); Palma Avoira (It.; POR); Palma da Olio (It.; POR); Palma de Aceite Africana (Col.; AVP); Palma Dendem (Por.; POR); Pal'ma Maslichnaia (Rus.; POR); Palma Oleaginosa Africana (It.; Sp.; POR); Palmeira Andim (St. Thomas; KAB); Palmera de Aceite (Sp.; POR; RAR); Palmera Dendém (Por.; POR); Palmier à Huile (Fr.; USN); Palmier à Huile d'Afrique (Fr.; USN); Palmier a l'huile Guinee (Haiti; AVP); Palmier Crocro (Fr.; KAB); Palmier Epineux (Fr.; KAB); Palmietboom (Dutch; KAB); Palmiste Epineux (Fr.; KAB); Popodanu (Dahomey; UPW); Si Htan (Burma; POR); Si Ohn (Burma; POR); Tigele (Uv.; UPW); Tintulu (Malinke; KAB); Toehtis (Gui.; KAB); True Oil Palm (Eng.; KAB); Tugi (Susu; KAB); Uruta (Choco; IED); Vonvuni (Ivo.; UPW); Wie (Ghana; UPW); You Zong (China; POR); Zamba (Yakoma; KAB). UPW devotes about 5 pages, small print, to common names for this species and its various parts and products. Sparing you most of them, I did add one for each country.

### Activities:

Analgesic (f; DAW; UPW); Antemetic (f; UPW); Antiabortifacient (f; UPW); Antiaggregant (1; X12602939); Antiatherosclerotic (1; X12602939); Anticarcinogenic (1; X8349204); Antidote (f; DAW); Antioxidant (1; X12492636; X15023645; X15294571); Antiradicular (1; X15023645); Antithrombic (1; X12602939); Antitumor (f; JLH); Aphrodisiac (f; DAW); Astringent (f; UPW); Cardioprotective (1; X12602939); Chemopreventive (1; X14506002); Cicatrizant (f; UPW); Diuretic (f; DAW; KAB; UPW); Ecbolic (f; UPW); Hypocholesterolemic (1; X10898484); Immunostimulant (1; X12602939); Laxative (f; KAB); Radioprotective (1; X7844638); Repellant (1; X9924960); Sunscreen (1; X7844638); Tonic (f; UPW); Toxic (f; DAW); Vasorelaxant (1; X12492636); Vasotonic (1; X12492636); Vulnerary (f; DAW; KAB).

### Indications:

Alzheimer's (1; X14506002); Arthrosis (f; UPW); Atherosclerosis (1; X12602939); Bronchosis (f; UPW); Cancer (f1; JLH; X14506002; X8349204); Cardiopathy (1; X12602939; X14506002); Cataracts (1; X14506002); Childbirth (f; UPW); Constipation (f; KAB); Courbature (f; KAB); Dementia (1; X14506002); Dermatitis (f; UPW); Dysmenorrhea (f; UPW); Enterosis (f; UPW); Gonorrhoea (f; UPW); Headache (f; DAW; UPW); High Blood Pressure (1; X12492636); High Cholesterol (1; X10898484); Infection (f; UPW); Leucorrhoea (f; UPW); Maculosis (1; X14506002); Metrorrhagia (f; UPW); Miscarriage (f; UPW); Mycosis (f; UPW); Pain (f; DAW; UPW); Rheumatism (f; DAW; KAB); Ringworm (f; UPW); Sleeping Sickness (f; UPW); Syphilis (f; UPW); Thrombosis (1; X12602939); Vasculosis (1; X14506002); VD (f; UPW); Wounds (f; DAW; KAB; UPW).

### Dosages:

FNFF = !! Cabbage, bark, young leaves and sap, often fermented, are consumed. Fruits edible, both mesocarp and kernel, and a major source of carotenoid-rich oil and vitamin E (FAC; HOE).

- Congolese use roots for dysmenorrhea, enterosis, leukorrhoea, and miscarriage (UPW).
- Diola use palm wine for blennorrhoea (UPW).
- Gabonese eat boiled cabbage with chile and salt for bronchoses, using sap as cicatrizant (UPW).
- Ghanaians make a paste from the spines mixed with citrus juice for ringworm and dermatoses (UPW).
- Ghanaians use the root for headache and pain (UPW).

- Guinea-Bissau locals use smoke of the infructescence to repel mosquitos (X9924960).
- Ivory Coastals use pulped spines with citron juice for skin afflictions (UPW).
- Nigerians eat stem bark as a tonic, using cabbage and young leaves for gonorrhoea and menorrhagia (UPW).
- Senegalese use roots for intestinal pain (UPW).
- Senegalese Wolof use for miscarriage and syphilis (UPW).

**Downsides:**

Roots folklorically considered highly toxic (UPW). As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**Extracts:**

“Palm oil is a rich source of carotene and appears to be the only oil of vegetable origin which can serve as a potent source of vitamin A, comparable to the better grades of cod liver oil and about 10 times richer than butter. It can be used in place of cod liver oil whenever a deficiency of vitamin A has to be corrected” (WOI). Homeostatic regulation of carotene bioconversion by the intestine prevents any excess toxic accumulation of vitamin A from provitamin A (X14506004). Palm oil, containing 50% saturated fatty acids, (yet does not promote atherosclerosis and arterial thrombosis unless it has been oxidized which does pose potential dangers), when consumed in moderation and with reduced levels of oxidation can have beneficial health effects (X12602939). Palm frond extracts exhibited considerable vascular relaxation (>75% in rat thoracic aorta) by endothelium-dependent mechanisms, and had highest antioxidant capacity of all tested plant extracts (X12492636). In comparison with two commercial mosquito repellents, the smoke of the infructescence was 69.0% as effective (X9924960).

## AMERICAN OIL PALM (*Elaeis oleifera* (Kunth) Cortés) + ARECACEAE

**Synonyms:**

*Alfonsia oleifera* Kunth (basonym); *Corozo oleifera* (Kunth) L. H. Bailey; *Elaeis melanococca* Mart.; fide (POR; USN).

**Notes:**

While almost all floras recognize the African and American oil palms as distinct, they have been exchanged both ways as another consequence of the Columbia exchange. I am maintaining two distinct write-ups in the FNF format for the species, but I dare say that natives would use them interchangeably, i.e., generically, as foodstuffs, medicines, etc. I was surprised to read that because of the high palmitic acid content of palm-oil, as also of cotton seed-oil, it has acquired a military value for the production of “Napalm.” *Elaeis oleifera* samples had significantly lower lipase activity compared with *E. guineensis* (var. *tenera*) samples. Even within *E. guineensis* var. *tenera*, there was a wide range of activity. The results confirmed that lipase activity is genotype dependent. Selection for lipase genotypes is thus possible and this will have obvious commercial value (X11171201).

**Common Names:**

American Oil Palm (Eng.; USN); Amerikanische Ölpalme (Ger.; POR; USN); Amerikansk Oliepalme (Den.; POR); Caiuá (Brazil; MPB); Caiué (Brazil; Por.; MPB; POR); Caraué (Brazil; RAR); Cayaué (Brazil; RAR); Coqueiro de Dendê (Por.; POR); Coquito (Sp.; USN); Corocito (Pan.; IED), Corocito Colorado (Sp.; POR), Corozo (Eng.; Sp.; POR.; USN); Corozo Colorado (Pan.; Sp.; IED); Corozo Colorado Moriche (Sp.; POR); Dendê do Pará (Por.; FAC; POR); Dendezeiro do Pará (Brazil; MPB); Kelapa Sawit (Malaya; POR); Kelapa Sawit Amer-

ika Mei Zhou You Zong (China; POR); Nolé (Sp.; USN); Nolí (Peru; Sp.; RAR; USN); Noli Palm (Eng.; POR); Öljypalmu (Fin.; POR); Palma Brasileira (Sp.; POR); Palma da Olio (It.; POR); Palma de Manteca (Col.; IED); Palma de Sebo (Col.; IED); Palma Nolí (It.; Sp.; POR); Palmiché (Sp.; Por.; RAR; USN); Palmier à Huile d'Amérique (Fr.; POR); Palmier Américain à Huile (Fr.; POR); Peloponte (Peru; DAV); Poloponta (Sp.; POR); Puma Yarina (Peru; DAV); Samaque (Cuna; IED); Selatan (Malaya; POR); Ujun (Sp.; POR). (Nscn).

**Activities:**

Analgesic (f; EGG); Antiinflammatory (f; DAW).

**Indications:**

Arthrosis (f; EGG); Gastrosis (f; DAW); Inflammation (f; DAW); Pain (f; EGG); Rheumatism (f; EGG).

**Dosages:**

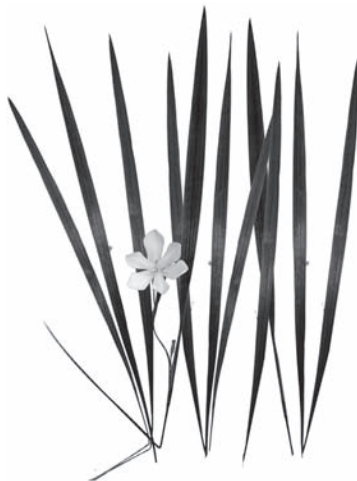
FNFF = !! Pulp and seeds of fruit eaten and used as oil source (FAC).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**PALM ONION (*Eleutherine bulbosa* (Mill.) Urb.) ++**

**IRIDACEAE**



**Illustrations:**

fig 22 (GMJ); p 281 (MD2)

**Synonyms:**

*Eleutherine palmifolia* auct.; *E. plicata* Herbert; *Ixia americana* Aubl.; *Moraea plicata* Sw.; *Sisyrinchium bulbosum* Mill. (basionym); fide (GMJ; USN).

**Common Names:**

Cebolla de Palma (Dor.; AHL); Echalote Caraibe (Creole; Wi.; GMJ); Echalote Marron (Haiti; GMJ); Envers (Creole; Guy.; GMJ); Envers Rouge (Creole; Guy.; GMJ); Eshihí Iñha (Ese'eja; MD2); Gorrai (Dor.; AHL); Inajai (Por.; GMJ); Jasin Huaste (Peru; Sp.; LOR); Kapiropenki (Matsigenka; MD2); l'Envers (Creole; Guy.; GMJ); Pacahuasten (Peru; SOU); Paka Waste (Shipibo/Conibo; Yine; MD2); Pti Palmiste (His.; AHL); Sero Shrojiru (Piro; Yine; MD2);

Waro (Secoya; Siona; SAR); Wasey (Wayãpi; GMJ); Yahuar Piri Piri (Peru; Sp.; LOR; MDD); Yawuro Kamalejite (Piro; Yine; MD2).

#### Activities:

Abortifacient (f; GMJ); Antifertility (f1; GMJ; SAR; X7109665); Astringent (f; MD2); Bactericide (f1; DAV; SAR; X807711); Cicatrizant (f; GMJ; MD2); Ecchymotic (f; VDF); Fungicide (f; X12973542); Hemostat (f; MD2); Uterostimulant (1; X7109665); Vermifuge (f; SAR).

#### Indications:

Amebiasis (f; DAV); *Bacillus* (f1; DAV; X807711); Bacteria (f1; DAV; SAR; X807711); Bleeding (f; MD2); Conjunctivitis (f; MD2); Diarrhea (f; MD2; RVM); Dislocation (f; MD2); Dysentery (f; MD2; SOU); Dysmenorrhea (f; DAW); Enterosis (f; MD2); Epilepsy (f; GMJ); Fungus (f; X12973542); Gastrosis (f; DAV; MD2); Hematochezia (f; MD2); Infection (f1; DAV; SAR; X12973542; X807711); Menopause (f; DAW); Mycosis (f; X12973542); Stomachache (f; DAV); Ulcers (f; MD2); Worms (f; SAR); Wounds (f; DAV; GMJ; MD2).

#### Dosages:

FNFF = ?

- Caribs use for female complaints and menstrual pain (X17362507).
- Madre de Dios natives apply bulb juice to stop bleeding and speed healing of wounds (MD2).
- Madre de Dios natives drink a cup of bulb juice for gastric ulcers and to stop internal bleeding (MD2).
- Madre de Dios natives plaster the bulbs to wounds and dislocated bones (MD2).
- Madre de Dios natives use bulb decoction for bloody diarrhea and dysentery (MD2).
- Madre de Dios natives use bulb juice as eye drops in conjunctivitis (MD2).

#### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

#### Extracts:

Dichloromethane bulb extract showed strong fungicidal activity toward *Cladosporium sphaerospermum*, namely four quinonoid compounds at 100 g/spot (X12973542). Eleutherin had a weak and transient effect of decreasing prothrombin time *in vivo* (rats) and was weakly antibacterial *in vitro* toward *Bacillus subtilis* (X807711).

## MONKEYSOAP (*Enterolobium cyclocarpum* (Jacq.) Griseb.) + MIMOSACEAE

#### Illustrations:

fig 108 (IED); p 451 (TTS)

#### Synonyms:

*Inga cyclocarpa* (Jacq.) Willd.; *Mimosa cyclocarpa* Jacq. (basionym); fide (USN).

#### Common Names:

Affenseife (Ger.; USN); Algarrobo de Orejas (Sp.; TTS); Anjera (Col.; IED); Árbol de las Orejas (Sal.; Sp.; AVP; USN); Bois Tanniste Rouge (Fr.; Haiti; AVP; USN); Caracara (Ven.; LWV); Caracao (Sp.; AVP); Carita (Sp.; USN); Carito (Col.; AVP); Caro (Col.; Ven.; AVP); Carocaró (Ven.; LWV); Caro Hembra (Sal.; LWV); Conacaste (Guat.; AVP); Corotú (Pan.; Sp.; IED; USN); Costa Mahogany (Eng.; TTS); Curotú (Pan.; AVP); Devil's-Ear (Eng.; USN); Dormilón (Col.; Pr.; AVP; IED); Earpod (Eng.; AVP); Earpodtree (Eng.; USN); Elephant's-



Ear (Eng.; USN); Flamboyán Extranjero (Sp.; TTS); Framboyán Extranjero (Sp.; AHL); Genicero (Cr.; Nic.; LWW); Guanacaste (Bel.; Hon.; Mex.; Sp.; USN); Guanacaste Blanco (Nic.; LWW); Guanacastle (Sp.; AH2; TTS); Hueso de Pescado (Ven.; LWW); Huichichile (Mex.; AVP); Huinacaxle (Mex.; AVP); Jarina (Cr.; LWW); Jenízaro (Sp.; TTS); Juana (Sp.; TTS); Juan de Acaste (Hon.; AVP); Monkey Ear (Eng.; AVP); Monkeysoap (Eng.; Jam.; Sen.; AH2; LWW; USN); Mulatto Ear (Eng.; AVP); Nacaste (Sp.; TTS); Nacastle (Sp.; TTS); Nacazle (Mex.; LWW); Oreille d'e Juif (Fr.; AVP); Oreille d'Éléphant (Fr.; USN); Oreja (Col.; Dor.; AHL; AVP; IED); Oreja de Judio (Cuba; AVP); Oreja de Mono (Sp.; AVP); Oreja de Mulato (Sp.; AVP); Orejero (Col.; IED); Oviero (Col.; IED); Palo de Orejas (Guat.; AVP); Parota (Mex.; Sp.; USN); Pich (Bel.; BNA); Piche (Mex.; AVP); Picho (Sp.; TTS); Piñon (Col.; AVP); Piñon de Oreja (Col.; AVP); Tubroos (Bel.; BNA); Tuburus (Nic.; LWW); Tusipono (Choco; IED). (Diacritically prepared).

**Activities:**

Piscicide (1; DAW); Spermicide (1; X4080814).

**Indications:**

Bronchitis (f; DAW); Colds (f; IED); Pulmonosis (f; DAW); Tuberculosis (f; AHL); Tumors (f; JLH).

**Dosages:**

FNFF = ! Seeds possibly edible to man (AHL). Tender young pods cooked and eaten (IED; TAN).

**Downsides:**

Sawdust allergenic, possibly piscicidal (AHL; LWW). As of July 2007, the FDA Poisonous Plant Database listed five titles alluding to toxicity of this species.

**Extracts:**

Saponins show spermicidal activity (X4080814).

## BOGOTA HORSETAIL (*Equisetum bogotense* Kunth.) + EQUISETACEAE

**Illustrations:**

fig 71 (MPG)

**Synonyms:**

*Equisetum chilense* K. Presl.; fide (MPG).

**Notes:**

Andeans in Bolivia (DLZ) and Peru (ROE) seem to use the smaller (and high Andean) *E. bogotense* and larger (and lower altitude) *E. giganteum* similarly as medicines. The MD2 data below are based on an unidentified species of horsetail from upper reaches of the Rio Madre de Dios (Lacaze and Alexiades, 1995). I have not seen horsetail at the lower altitudes.

**Common Names:**

Bogota Horsetail (Eng.; JAD); Caña Cidra (Peru; ROE); Canutillo (Col.; Ma.; JFM; MPG); Cavallinho (Por.; JFM); Cola de Caballo (Chile; Cr.; Pan.; Peru; JFM; MPG; ROE); Cola de Mula (Ma.; JFM); Herba Canudo (Ma.; JFM); Hierba de Conejo (Col.; MPG); Hierba del Platero (Chile; Ma.; JFM; MPG); Hierba de Plata (Pan.; MPG); Horsetail (Eng.; JFM); Khuchi Chupa (Bol.; Peru; Que.; DLZ; EGG); Khuchi Wich'inkha (Aym.; Bol.; DLZ); Limpia Plata (Chile; Ma.; JFM; MPG); Lixa Vegetal (Ma.; JFM); Mocco Mocco (Peru; EGG);

Moco-Moco (Ma.; JFM); Moqo Moqo (Bol.; Que.; DLZ); Pinco Pinco (Peru; ROE); Scouring Rush (Eng.; JFM); Tawa Tsati (Shipibo/Conibo; MD2); Tembladera (Ma.; JFM); Tembladera Pequeña (Col.; MPG); Tujchi Wich'inkha (Aym.; Bol.; DLZ); Yerba de Platero (Ma.; JFM); Zamarendó (Matsigenka; MD2).

#### Activities:

Analgesic (f; MD2); Antiinflammatory (f; ROE); Antiseptic (f; MPG); Astringent (f; ROE); Cicatrizant (f; ROE); Depurative (f; MPG; ROE); Diuretic (f; EGG; JFM; MPG; X8941869); Emmenagogue (f; EGG); Expectorant (f; DLZ); Hemostat (f; MPG); Hypertensive (f; MPG); Stimulant (f; EGG); Vasoconstrictor (f; EGG); Vulnerary (f; MPG).

#### Indications:

Acne (f; EGG; MD2); Alopecia (f; MPG); Bleeding (f; JFM; MPG); Bleorrhoea (f; ROE); Calculus (f; DLZ; EGG); Cancer (f; EGG); Cholera (f; ROE); Circulosis (f; ROE); Colds (f; EGG); Colic (f; MPG); Cystosis (f; MPG); Dermatoses (f; DLZ; MD2; MPG; ROE); Diabetes (f; JFM); Dysentery (f; JFM; ROE); Epistaxis (f; MPG); Gonorrhoea (f; JFM); Halitosis (f; DLZ); Hepatosis (f; DLZ; MD2); Infection (f; MPG); Inflammation (f; ROE); Low Blood Pressure (f; MPG); Lupus (f; EGG); Metrorrhagia (f; MPG); Nephrosis (f; EGG; MD2); Oliguria (f; JFM; MPG; X8941869); Ophthalmia (f; MPG); Pain (f; MD2); Pulmonosis (f; MPG); Pyorrhoea (f; MPG); Sores (f; EGG; MPG); Splenosis (f; DLZ); Stomatosis (f; EGG; MPG); Uterosis (f; MPG); VD (f; JFM); Wounds (f; MPG; ROE).

#### Dosages:

FNFF = X.

- Andean Peruvians take the decoction for cholera (ROE).
- Bolivians use infusion as diuretic, emmenagogue, hemostat, litholytic, stimulant, and vasoconstrictor, using the decoction for colds, halitosis, phlegm, and spleen (DLZ).
- Colombians use for alopecia, capillary hemorrhage, oliguria, oral ulcers, and pulmonary ails (MPG).
- Costa Ricans use externally to sanitize sores and wounds, internally for cystosis and hemorrhage (MPG).
- Madre de Dios Peruvians use the tea for kidney pains, liver ailments, and to correct facial blemishes (MD2).
- Panamanians use as collyrium, depurative, diuretic, hemostat, and for alopecia, metrorrhagia, and ophthalmia (MPG).
- Peruvians suggest the decoction to wash acne, bleeding, cancer, sores, and renal calculi, the tea as a diuretic, emmenagogue, and stimulant, for colds, cystosis, and lupus (EGG).

#### Downsides:

Possibly hypertensive. Said to damage grazing horses due to thiaminase (MPG).

#### Extracts:

Stem rich in silica.

## GIANT HORSETAIL (*Equisetum giganteum* L.) + EQUISETACEAE

#### Common Names:

Caña Cidra (Peru; ROE); Canutillo (Ma.; JFM); Cauda de Cavalo (Arg.; MPG); Cauda de Raposa (Arg.; MPG); Caudo Equina (Arg.; MPG); Cavalinha (Arg.; Brazil; MPB; MPG); Cavalinho (Brazil; MPB); Chicote de Fraile (Arg.; MPG); Coda di Cavallo (Spain; MPG); Cola de Caballo (Dor.; Hon.; Peru; Uru.; AHL; MPG; ROE); Cola de Caballo Agigantada

(Dor.; AHL); Cola de Cavalo (Brazil; MPB); Cola de Iguana (Ma.; JFM); Cola de Lagarto (Uru.; MPG); Cola de Raton (Ma.; JFM); Cola Grande de Caballo (Ma.; JFM); Hierba de Platero (Ma.; JFM); Kawaii Chupa (Que.; DLZ); Kawaii Wich'inkha (Aym.; DLZ); Khuchi Chupa (Que.; DLZ); Khuchi Wich'inkha (Aym.; DLZ); Lija Vegetal (Ma.; JFM); Limpia Plata (Ma.; JFM); Lixa Vegetal (Brazil; MPB); Moco Moco (Peru; SOU); Moqo Moqo (Que.; DLZ); Pigo (Arg.; Toba; MPG); Pinco-Pinco (Peru; ROE); Pirkurkui (Peru; EGG; SOU); Piuo (Arg.; MPG); Rabo de Cavalho (Brazil; MPG); Rabo de Rato (Arg.; MPG); Suelda Suelda (Peru; EGG; SOU); Tembladera (Ma.; Peru; JFM; SOU); Tembladora (Ma.; JFM); Tujchi Wich'inkha (Aym.; DLZ); Yerba de Platero (Ma.; JFM). (Nscn).

### Activities:

Abortifacient (f; MPG); Analgesic (f; MPG); Antiinflammatory (f; MPG); Antiseptic (f; ROE); Antispasmodic (f; MPG); Antitumor (f; MPG); Astringent (f; AHL); Cicatrizant (f; ROE); Depurative (f; ROE); Diuretic (f1; MPB; MPG; SOU); Emmenagogue (f; MPG; SOU); Eupepic (f; MPG); Hemostat (f; MPB); Hepatotonic (f; SOU); Hypotensive (f; MPG); Litholytic (f; SOU); Neuritogenic (1; X10443479); Vasoconstrictor (f; EGG; SOU); Vulnerary (f; JFM).

### Indications:

Abscesses (f; JFM); Acne (f; EGG; ROE; SOU); Alopecia (f; JFM); Anemia (f; MPG); Backache (f; MPG); Bladder Stones (f; SOU); Bleeding (f; EGG; MPB; SOU); Bruises (f; MPG); Calculus (f; EGG; MPG); Calluses (f; JFM); Cancer (f; MPG; SOU); Caries (f; RAR); Childbirth (f; ROE); Cramps (f; MPG); Cystosis (f; SOU); Dermatitis (f; DLZ; MPG); Diabetes (f; AHL); Dysentery (f; MPB); Dysmenorrhea (f; ROE); Dysuria (f; JFM; ROE); Enterosis (f; MPG); Epistaxis (f; JFM); Fracture (f; MPB); Gonorrhea (f; MPB; MPG); Halitosis (f; SOU); Hematuria (f; ROE); Hepatosis (f; SOU); Herpes (f; MPG); High Blood Pressure (f; MPG); Infection (f; ROE); Inflammation (f; MPG); Itch (f; ROE); Kidney Stones (f; JFM; SOU); Lupus (f; SOU); Myalgia (f; MPG); Nephrosis (f; MPG; SOU); Ophthalmia (f; MPG); Pain (f; MPG); Polyps (f; JFM); Scrofula (f; MPG); Sores (f; MPG; RAR; ROE; SOU); Sore Throat (f; ROE); Stomatosis (f; EGG; SOU); Stones (f; JFM; SOU); Swelling (f; ROE); Tumors (f; MPG; SOU); VD (f; MPB; MPG); Wounds (f; MPG; JFM; ROE).

### Dosages:

FNFF = X.

- Argentinians use shoots as astringent and diuretic (MPG).
- Brazilians use as abortifacient and against scrofula (MPG).
- Guatemalans use as diuretic and hypotensive, for bruises, dermatitis, nephrosis, sores, and wounds (MPG).
- Hondurans use as antiinflammatory and diuretic, for anemia, backache, cramps, enterosis, myalgia, and nephrosis (MPG).
- Peruvians view plant as cicatrizant, diuretic, and emmenagogue, using for diarrhea and renal calculus (MPG).
- Uruguayans use as astringent, diuretic, and eupepic, for dysentery, gonorrhea, hepatosis, and nephrosis (MPG).
- Venezuelans apply the plant as a cataplasm on tumors (MPG).

### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

### Extracts:

Of 17 plants screened for NGF-potentiating activity, *E. giganteum* showed the highest proportion of neurite-bearing cells of all extracts or fractions, while others had longer neurites or long neurites but small proportion (X10443479).

**FIREWEED (*Erechtites hieraciifolius* (L.) Raf. ex DC.) ++****ASTERACEAE****Synonyms:**

*Erechtites agrestis* Standl. & Steyererm.; *E. cacalioides* (Fisch. ex Spreng.) Less.; *Senecio cacalioides* Fisch. ex Spreng.; *S. hieraciifolius* L.

**Common Names:**

Achicoria de Cabra (Cuba; Pr.; AUS; JTR); American Burnweed (Eng.; AUS); American Fireweed (Eng.; AUS); Āsûkitā'boe (Potawatomi; AUS); Burnweed (Eng.; USN); Buubxiu (Ma.; JFM); Carurú Amargoso (Pr.; AVP); Cerraja (Ma.; JFM); Côte Soleil (Haiti; AHL; AUS); Dogweed (Bah.; JFM; JTR); Erechtites à Fles (Guad.; AVP); Fireweed (Eng.; JFM; JTR; USN); Goat's Chicory (Eng.; AVP); Guasha Ureria (Ma.; JFM); Laitue Sauvage (Guad.; AVP); Lechuguilla (Dor.; AHL; AUS); Letron (Haiti; AHL); Malayan Groundsel (Eng.; USN); Pacunga Blanca (Peru; SOU); Pilewort (Eng.; USN); Schein-Greiskraut (Ger.; USN); Tabaquiullo (Ma.; JFM); Te del Suelo (Ma.; JFM). (Nscn).

**Activities:**

Alterative (f; JFM; JTR); Astringent (f; FAD; JFM; JTR); Cathartic (f; JFM); Emetic (f; JFM); Febrifuge (f; JFM); Tonic (f; FAD; JTR).

**Indications:**

Arthrosis (f; FAD); Bleeding (f; JFM); Colic (f; GMH); Coughs (f; JFM); Cramps (f; GMH); Cystitis (f; FAD); Dermatitis (f; JFM); Diarrhea (f; FAD); Dropsy (f; FAD); Dysentery (f; AHL; GMH; JTR); Eczema (f; JFM); Enterosis (f; FAD); Fever (f; JFM); Gastrosis (f; FAD); Gout (f; GMH); Hematochezia (f; JFM); Hemorrhoids (f; GMH); Hiccups (f; GMH); Mucososis (f; FAD); Pulmonosis (f; FAD); Rheumatism (f; FAD); Sciatica (f; FAD); Sore Throat (f; GMH).

**Dosages:**

FNFF = !! 5–10 drops on sugar, or in capsules, or emulsions (GMH).

- Salvadorans take the bitter decoction for cough (JFM).
- Venezuelan Indians bathe in the decoction to correct fevers (JFM).

**Downsides:**

Not covered (AHP; KOM; PH2). Contains senecionine and seneciphylline (JFM).

**Extracts:**

Senecionine: anticholinergic, antifertility, antitumor, carcinogenic, genotoxic, hepatotoxic 0.05 mM/kg ipr rat, hypotensive, mutagenic, and pneumotoxic; LD50 = 64 ivn mus, LD50 = 85 mg/kg ipr male rat, LD = 0.05 mM/kg ipr rat (FNF).

Seneciphylline: anticholinergic, antitumor, carcinogenic, cardiotoxic, hepatotoxic 0.05 mM/kg ipr rat, mutagenic, pneumotoxic, and uterotonic; LDlo = 60 ivn rat, LD = 0.05 mM/kg ipr rat, LD50 = 77 mg/kg ipr male rat (FNF).

**BLACK TORCH (*Erithalis fruticosa* L.) +****RUBIACEAE****Illustrations:**

p 287 (AUS); pl 722, p 931 (LWW)

**Common Names:**

Black Torch (Bah.; Dor.; Eng.; Fla.; Wi.; AUS; JFM; LWW); Bois Chand el (Haiti); Bois Chandelle (Fr.; Guad.; Mart.; JFM; LWW); Bois Chandelle Noir (Fr.; Guad.; Mart.; AVP; JFM; LWW); Bois d'Huile Bord de Mer (Guad.; AVP); Bois Flambeau (Fr.; Wi.; JFM); Botoncillo (Bel.; AUS); Cuaba Prieta (Cuba; Sp.; AVP; JFM; LWW); Flambeau (Fr.; Wi.; JFM); Jayajabico (Cuba; Pr.; Taino; AUS; JFM; JTR; LWW); Lumbra Blancu (Dwi.; AUS; JFM; LWW); Machete (Cuba; JTR); Panilla (Brazil; AVP); Parrot Apple (Eng.; Tobago; JFM; LWW); Pigeon Berry (Bah.; Eng.; Ma.; JFM; LWW); Rompe Machete (Pr.; JFM; LWW); Tarro de Chivo (Cuba; Mex.; AUS; JFM; JTR); Tea (Eng.; Ma.; Pr.; JFM; LWW); Teillo (Pr.; AVP); Vibona (Cuba; Sp.; JFM; JTR). (Nscn).

**Activities:**

Astringent (f; JFM); Diuretic (f; JFM; JTR; VOD); Hemostat (f; JFM); Purgative (f; JTR).

**Indications:**

Bleeding (f; JFM); Bleorrhagia (f; JTR); Catarrh (f; JTR); Cystosis (f; JFM; VOD); Hemorrhoids (f; AUS; JFM); Inflammation (f; JFM); Measles (f; AUS; JFM); Nephrosis (f; JTR; VOD); Sores (f; AUS); Wounds (f; AUS).

**Dosages:**

FNFF = ?

- Cubans use diuretic resin for blennorrhagia, cystitis, and nephroses (JTR).
- Haitians use bark, fruit, and resin decoction as diuretic, in cystosis and nephrosis (VOD).
- West Indians use leafy branch decoction for piles, in baths for measles and sores (AUS).
- West Indians apply parched and ground leaves to wounds and to stop bleeding of newborn navel (AUS).

**CULANTRO (*Eryngium foetidum* L.) +**

APIACEAE

**Illustrations:**

p 194 (CR2)

**Notes:**

McGuffin et al. (2000) give two standardized common names for *Coriandrum sativum*, which is what most North Americans know by those common names, "cilantro" for the leaves, "cori-

ander” for the seed (AH2). This will be confusing in places like Peru where *Coriandrum* is the species used in the Andes, whereas *Eryngium foetidum*, of the same family, bears the name “cilantro” in the lowlands. McGuffin et al. (2000) give “culantro” as the standardized common name for *E. foetidum* (AH2).

### Common Names:

Acapate (Ma.; JFM); Achicoria (Ma.; JFM); Acopate (Sal.; Ven.; AVP); Akakasin (Galibi; GMJ); Ashe (Shipibo/Conibo; Peru; EGG); Auslafer (Ger.; AVP); Awarussan (Palikur; GMJ); Azier la Fievre (Fr.; AVP; USN); Balang Katunchar (Sunda; IHB); Bandhana (Nepal; NPM); Brahmthaniya (Nepal; NPM); Cardo (Sa.; EGG; SOU); Cardo Santo (Ma.; JFM); Charderon (Ma.; JFM); Chardon Bene (Fwi.; Guy.; AHL; GMJ); Chardon Étoilé (Fr.; USN); Chardon Etoile Fetide (Fwi.; AHL); Chardon Etoile Puant (Haiti; AHL); Chardon Roland (Fr. Guy.; AVP); Chardron (Fwi.; AVP); Chicoria (Ma.; JFM); Cilantro (Bel.; Eng.; BNA; CR2); Cilantro Cimmaron (Ma.; JFM); Cilantro Sabanero (Dor.; AHL); Cimaron (Bel.; BNA); Coantro da Caboclo (Brazil; AVP); Coentro Bravo (Por.; AVP; MPB; USN); Coentro da Colonia (Brazil; Por.; AVP; MPB); Coentro da Columbia (Por.; AVP); Coentro da India (Por.; AVP); Coentro de Caboclo (Brazil; Por.; AVP; RAR); Coentro do Sertao (Por.; JFM); Coulant (Creole; Haiti; VOD); Coulante (Haiti; AHL; AVP); Coulante Chardon (Fwi.; AVP); Coulantre (Fr.; AHL); Coulantre de Monte (Sp.; AVP); Culantrico (Dor.; AHL); Culantro (Bel.; Cuba; Eng.; Haiti; Pan.; Scn.; Sp.; AH2; BNA; CR2; IED; NPM; RyM; USN); Culantro Chuncho (Peru; Sa.; EGG; SOU); Culantro Cimarron (Sp.; AVP); Culantro Coyote (Sp.; AVP); Culantro de Burro (Brazil; Por.; AVP; MPB); Culantro de la Tierra (Ma.; JFM); Culantro del Monte (Ma.; JFM); Culantro de Perro (Ma.; JFM); Culantro Extranjero (Ma.; JFM); Culantro Hediondo (Brazil; AVP); Culantro Real (Ma.; JFM); Escorzonero (Ma.; JFM); False Coriander (Eng.; Ocn.; AH2; USN); Feuille Coulante (Haiti; AVP); Fit Bush (Ma.; JFM); Fitweed (Eng.; NPM); Gakaka (Piro; Peru; EGG); Herbe a Fer (Ma.; JFM); Herbe Puante (Fwi.; AHL); Jia Yuan Qian (Pin.; DAA); Jintenan (Java; IHB); Juruju Gunong (Malaya; IHB); Kankong Kerbau (Malaya; IHB); Katumbar Londa (Java; IHB); Katumbar Mungsi (Java; IHB); Katunchar Walanda (Sunda; IHB); Katuncha Walang (Sunda; IHB); Kawawat (Ma.; JFM); Ketumbar Jawa (Malaya; IHB); Kisauri (Ulwa; ULW); Kolentro (Bel.; BNA); Koulan (Creole; Haiti; VOD); Ngo Gai (Vn.; EB42:413); Pak Chi Farang (Thai; IHB); Panicaut Fetide (Fwi.; AVP; JFM); Radie la Fievre (Creole; Guy.; GMJ); Roland Fetide (Fwi.; AVP); Sabanero (Sp.; AHL); Sacha Culantro (Ma.; Que.; JFM; RAR); Samat (Ma.; JFM); Shadow-Beni (Eng.; USN); Singa Depa (Sunda; IHB); Sirkha Culandro (Que.; DLZ); Siuca (Sa.; EGG; SOU); Siuca Culantro (Ma.; Sa.; EGG; JFM; SOU); Snekie Wiwirie (Ma.; JFM); Spiritweed (Ma.; Ocn.; AH2; JFM); Stinkdistel (Ger.; USN); Stinking Weed (Eng.; AHL); Stinkweed (Eng.; Ocn.; AH2; USN); Tumbaran (Java; IHB); Tumbar Mungsi (Java; IHB); Walang Anjing (Sunda; IHB); Walang China (Sunda; IHB); Walang Duri (Sunda; IHB); Walang Geni (Sunda; IHB); Walang Katunchar (Sunda; IHB); Xamat (Ma.; JFM); Yerba del Sapo (Ma.; JFM). The name cilantro is also applied to leaves of *Coriandrum*.

### Activities:

Abortifacient (f; EGG; JFM; MPB); Analgesic (1; TRA); Antemetic (f; RAR); Anticonvulsant (1; TAD); Antiedemic (f1; PR13:75); Antiinflammatory (f1; PR13:75; X10189959); Antiseptic (f1; TRA); Antispasmodic (f1; TAD; TRA); Antiviral (1; TRA); Aphrodisiac (f; JFM); Bactericide (1; TRA); Carminative (f1; DAV; FNF); Diaphoretic (f; AHL; JFM); Digestive (f; BOW); Diuretic (f; MPB); Emmenagogue (f; AHL; EGG; HHB; JFM; VOD); Expectorant (1; TRA); Febrifuge (f1; AHL; TRA); Fungicide (1; TRA); Hemostat (f; JFM); Herbicide (f; RAR); Hypoglycemic (1; JAC7:405); Hypotensive (1; JFM; TRA); Laxative (f; JFM); Orexigenic (f; JFM); Pectoral (f; DAV); Plasmodicide (1; TRA); Stimulant (f; HHB; JFM); Stomachic (f; NPM); Sudorific (f; EGG); Tranquilizer (f; EGG); Vermifuge (f; JFM); Vulnerary (f; VOD).

**Indications:**

Abscesses (f; EGG); Anemia (f; MPG); Anorexia (f; JFM); Arthrosis (f; DAV; MPG); Asthma (f; IED; MPG); Bacteria (1; TRA); Bilioussness (f; JFM); Bleeding (f; JFM); Bronchosis (f; DAV; EGG); Cardialgia (f; IED); Cardiopathy (f; MPG); Catarrh (f; IED); Childbirth (f; EGG; X17362507); Chills (f; BOW); Cicatrizant (f; VOD); Colds (f; DAV; EGG; JFM; VOD); Colic (f; AHL; DAV); Constipation (f; JFM); Convulsions (f1; JFM; TAD); Coughs (f; AHL; DAV; JFM); Cramps (f1; EGG; MPB; TAD; TRA); Debility (f; MPG); Diabetes (1; JAC7:405; JFM; MPG); Diarrhea (f; DAV; EGG; RAR; ULW); Dropsy (f; MPB); Dyspepsia (f1; BOW; DAV; ULW; VOD); Earache (f; MPG; TRA); Edema (f1; PR13:75); Enterosis (f; VOD); Epilepsy (f; BOW); Fever (f1; AHL; DAV; EGG; JFM; TRA; VOD); Fit (f; BOW; EGG; JFM); Flu (f; DAV; EGG; GMJ; JFM); Fungus (1; TRA); Gas (f1; DAV; EGG; FNF; JFM); Gastrosis (f; VOD); Headache (f; VOD); Hepatosis (f; EGG); High Blood Pressure (f1; DAV; IED; JFM; MPG; TRA); High Cholesterol (f; MPG); Hysteria (f; VOD); Impotence (f; JFM; MPB); Infection (f1; TRA); Infertility (f; X17362507); Inflammation (f1; PR13:75; X10189959); Insomnia (f; DAV; EGG; TRA); Nausea (f; DAV; EGG; RAR; TRA); Neuralgia (f; DLZ); Obesity (f; MPG); Pain (1; TRA); Parasites (f; IED; ULW); Plasmodia (1; TRA); Pneumonia (f; DAV); Pulmonosis (f; VOD); Respirosis (f; ULW); Rheumatism (f; AHL; DAV; JFM; VOD); Snake Bite (f; HHB; JFM); Stomachache (f; DAV; EGG; MPG); Swelling (f1; PR13:75); Syncope (f; JFM); Tumors (f; DAV; JLH); Viruses (1; TRA); Water Retention (f; HHB); Worms (f; IED; JFM); Wounds (f; VOD); Yellow Fever (f; JFM).

**Dosages:**

FNFF = !!! Leaves used as a condiment or pickled; fruits used as spice (EB42:413; IHB; NPM). I consider it THE culinary herb of Panama.

- Caribs use for childbirth, female complaints, infertility, and menstrual pain (X17362507).
- Costa Ricans regard the plant as aphrodisiac (JFM).
- Francophone West Indians boil the plant, with or without castor oil added, for biliousness, constipation, fits, and yellow fever (JFM).
- Guatemalans respect the plant as a potent emmenagogue and abortifacient (JFM).
- Haitians drink or massage with the decoction as a febrifuge or sudorific (EGG).
- Jamaicans take the plant decoctions, internally or topically, for convulsions and fits (JFM).
- Panamanians claim the decoction lowers blood pressure (JFM).
- Peruvians recommend a decoction of 7 leaves when the pains of childbirth begin (EGG).
- Peruvians suggest the leaf decoction, or tincture, with or without lemon, for bronchitis, diarrhea, childbirth, cold, fever, flu, gas, nausea, and stomachache (RAR).
- Surinamese take the leaf decoction for colds and fevers (JFM).
- Trinidadans take the leaf tea for colds, diarrhea, and flu, the root decoction for cold, constipation, and cough (JFM).
- Trinidadans take the root infusion, or rum or wine tincture, for worms (JFM).

**Downsides:**

Not covered (AHP). The emmenagogue folklore might suggest cautious use, if at all, by pregnant women. As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**Extracts:**

Leaf extract show antiinflammatory activity in topical applications (X10189959). LD50 (leaf) 11,500 mg/kg; LD50 (extracts) 1,000 mg/kg orl rat; >50 mg/kg ivn rat.

**CORAL-BEAN (*Erythrina fusca* Lour.) ++****FABACEAE****Illustrations:**

fig 101 (DAV)

**Synonyms:***Erythrina glauca* Willd.; *E. ovalifolia* Roxb.; fide (USN).**Common Names:**

Acacurana (Brazil; MPB); Ahuijote (Sp.; USN); Amasisa (Peru; SOU); Ana (Peru; RAR); Assacu Rana (Brazil; Por.; GMJ; SAR); Bico de Arara (Brazil; MPB); Bucago (Sp.; USN); Bucare (Sp.; USN); Coral-Bean (Eng.; CR2; USN); Cosorio (Bol.; DLZ); Cuanxan (Cashibo; RAR); Feijao Bravo (Brazil; MPB); Gachico (Peru; SOU); Gallito (Peru; Sp.; LOR); Gallito de Pantano (Sp.; USN); Mitiko (Palikur; GMJ); Mulungo (Brazil; MPB); Palo Santo (Sp.; USN); Pisinay (Bol.; Siriono; DLZ); Pisonat (Bol.; Moxo; DLZ); Purple Coraltree (Eng.; USN); Quichorisis (Chiquitano; DLZ); Sainandi (Chiriguano; DLZ); Suina (Brazil; GMJ; MPB); Swamp Immortelle (Eng.; CTD; DAV; USN); Zimmortelle (Creole; Guy.; GMJ).

**Activities:**

Analgesic (f; CR2); Antiseptic (f; CR2); Antitussive (f; GMJ); Febrifuge (f; CR2); Hallucinogenic (f1; CR2); Narcotic (f1; CRC; RAR; SAR); Purgative (f; RAR); Sudorific (f; DAV; GMJ); Vermifuge (f; CR2).

**Indications:**

Beriberi (f; IHB); Boils (f; CRC); Bruises (f; DLZ); Cancer (f; JLH); Colds (f; DAV); Constipation (f; RAR); Coughs (f; GMJ); Dermatitis (f; CTD; DAV); Fever (f; CRC; CR2; CTD); Flu (f; GMJ); Fracture (f; CRC); Fungus (f; 60P); Headache (f; CTD; GMJ); Hematuria (f; CRC); Hepatitis (f; SAR; 60P); Infection (f; CR2; CTD; DAV); Malaria (f; CRC; CTD); Migraine (f; GMJ); Myalgia (f; SAR); Mycosis (f; CTD; DAV); Nephrosis (f; CTD; RAR); Pain (f; CR2); Rheumatism (f; CRC; RAR; SAR); Toothache (f; CRC); Worms (f; CR2); Wounds (f; CTD; SAR).

**Dosages:**

FNFF = ! Young leaves eaten raw, e.g., in papaya salad and rice dishes, or cooked as vegetable (FAC; TAN). Bark decoction used to bathe aching limbs and wounds; ½ cup drunk for malaria (SAR); bark resin in alcohol rubbed onto bruises (DLZ); floral decoction antitussive in coughs (GMJ).

- Brazilians drink purgative root tea for hepatitis and rheumatism (SAR).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed seven titles alluding to toxicity of this species.

**AMASISA COLORADO (*Erythrina ulei* Harms) +****FABACEAE****Illustrations:**

p 153 (MD2)

**Synonyms:***Erythrina xinguensis* Ducke



**Notes:**

Not included in Duke and Vasquez (1994) but reported in Lacaze and Alexiades (1995) and Egg (1999). The Lacaze and Alexiades (1995) account aggregates *E. amazonica*, *E. poeppigiana*, and *E. ulei*. Seeds used in necklaces and handicrafts; the wood an inferior timber; also used as a shade tree for cacao (EGG; MD2; RAR).

**Common Names:**

Amashisha (Peru; EGG); Amasisa (Sp.; DAV); Amasisa Colorado (Sp.; EGG; MD2); Amazonian Coral Tree (Eng.; DAV); Casho (Amahuaca; EGG); Fuego del Bosque (Peru; EGG); Gachicho (Piro; Yine; MD2); Huaman Stilo (Peru; RAR); Huayruro Amasisa (Sp.; DAV); Huilca Tauri (Peru; RAR); Kashó (Amahuaca; Shipibo/Conibo; MD2); Kuaso (Ese'ija; MD2); Mulungu (Brazil; RAR); Oakta (Amarakaeri; MD2); Oakuey (Huachipaeri; MD2); Oropel (Peru; EGG; RAR); Pisonay (Que.; MD2); Siri-Siri (Amarakaeri; MD2); Vilka Tauri (Peru; EGG; RAR); Willca Tauri (Peru; EGG). (Nscn).

**Activities:**

Antibacterial (1; X16910926); AntiMRSA (1; X12803562; X15185847; X16910926); Antiseptic (1; X16910926); Antitussive (f; MD2); Candidicide (1; X12803562); Fungicide (1; X12803562).

**Indications:**

Bacteria (1; X16910926); Bruises (f; EGG); *Candida* (1; X12803562); Coughs (f; MD2); Dermatitis (f; MD2); Fungus (1; X12803562); Infection (1; X12803562; X16910926); Stings (stingray) (f; MD2); Swelling (f; EGG; MD2); Wounds (f; MD2).

**Dosages:**

FNFF = ? Leaves fed to guinea pigs (MD2).

- Madre de Dios inhabitants heat juice of inner bark for stingray stings and wounds (MD2).
- Madre de Dios inhabitants plaster grated bark onto wounds and "riwi" (MD2).
- Madre de Dios inhabitants take floral tea for cough (MD2).
- Madre de Dios inhabitants use cold macerated leaves and bark to treat "pukungui" hot swellings on body, face, and skin (MD2).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

The isoflavone isolupalbigenin, from *E. poeppigiana*, exhibited the highest anti-MRSA activity (MIC: 1.56–3.13  $\mu\text{g ml}^{-1}$ ; MBC: 6.25–12.5  $\mu\text{g ml}^{-1}$ ), followed by erythrinin B; alternate testing indicates direct growth inhibition against MRSA and amplification of methicillin sensitivity (X15185847; X16910926). Angolensin, demethylmedicarpin, erypogin A, erypostyrene, and sandwicensin, also from *E. poeppigiana*, also showed antiMRSA activity, but of these erypostyrene had highest activity (MIC: 6.25  $\mu\text{g ml}^{-1}$ ) in addition to showing anticandidal activity (MIC: 50  $\mu\text{g ml}^{-1}$ ) (X12803562).

## CATUABA (*Erythroxylum catuaba* A. J. Silva ex Raym.-Hamet) +

### ERYTHROXYLACEAE

**Notes:**

Nearly a dozen years ago I was hired by two different concerns to research the published folk history of "carqueja," "catuaba," "maca," and "suma." I worked several days combing many

books and coming up empty handed. One of the employers was so disappointed that he failed to pay me for the time spent in learning that the species had no published folk history. It takes almost as long to go through the books, and learn that there is nothing, as it does to go through the same books and copy what there is published. I'll never forget, nor forgive, that raucous anthropologist who continued to praise the herb, though I found nothing, and hence received nothing, not even the promised daily consultant fee. That was back in the days of Varro Tyler's Herbal Hoaxes, and I truly felt then (and sometimes still suspect) that these are over-hyped if not over-hoaxed. Just to show that I am not the only one, I quote from one six-volume Brazilian book I purchased just for those consulting exercises (Pio Correa, 1984). Re *E. catuaba*, he said: (p. 151, vol. 2, 1984) "Nota: Sob o mesmo nome vulgar CATUABA, tendo como synonymo PAU DE REPOSTA, cita-se certa frequencia uma planta ainda desconhecida para a ciencia e que seria *Erythroxylum Catuaba*. É talvez uma phantasia, comon inumeras outras, sendo que todas servem apenas para augmentar a confusno" (PIO). After speaking rather well of "catuaba," the common name, Taylor (2005) diminishes my enthusiasm for buying this herb when she says, "The jury's still out as to which species is being sold, however!" I'd not myself buy a product damned by such faint praise. Rutter (1990) lists it for Peru; more scientifically BAZ does not.

#### Common Names:

Angelim-Rosa (Sa.; RAI); Caramuru (Sa.; RAI); Cataguá (Sa.; RAI); Catiguá (Sa.; RAI); Catuaba (Por.; Scn.; Sp.; AH2; USN); Chuchu Huasa (Peru; RAR); Chuchuhuasha (Sa.; RAI); Golden Trumpet (Eng.; Ocn.; AH2); Pau de Reposta (Sa.; PIO; RAI); Piratançara (Sa.; RAI); Small Catuaba (Eng.; RAI); Tatuaba (Sa.; RAI).

#### Activities:

Analgesic (f; RAI); AntiHIV (1; X1525337); Antiviral (1; RAI); Aphrodisiac (1; RAI); Bactericide (1; RAI; X1525337); Cerebrotonic (f; RAI); CNS-Stimulant (f; RAI); Neurotonic (f; RAI); Orexigenic (f; RAR); Tonic (f; RAI); Vasodilator (f; RAI).

#### Indications:

Anorexia (f; RAR); Anxiety (f; RAI); Arthrosis (f; RAR); Bacteria (1; RAI; X1525337); Cancer, skin (f; JLH); Debility (1; RAI); Depression (f; RAI); Dermatitis (f; JLH); *Escherichia* (1; RAI); Exhaustion (f; RAI); Fatigue (f; RAI); HIV (1; RAI; X1525337); Hypochondria (f; RAI); Impotence (1; RAI); Infection (1; RAI; X1525337); Insomnia (f; RAI); Nervousness (f; RAI); Neuralgia (1; RAI); Pain (f1; RAI); Rheumatism (f; RAR); Sciatica (1; RAI); Senility (f; RAI); *Staphylococcus* (1; RAI; X1525337); Stress (f; RAI); Syphilis (f; RAI); VD (f; RAI); Viruses (1; RAI).

#### Dosages:

FNFF = ? 1–3 cups bark tea/day (RAI); 2–3 ml bark tincture 2×/day (RAI).

- Brazilians use as analgesic, aphrodisiac, CNS-stimulant, and tonic, for exhaustion, fatigue, forgetfulness, frigidity, hypochondria, impotence, insomnia, neurasthenia, and syphilis (RAI).
- Campa Indians of Central Peru pulverize the bark and place it in alcohol to treat skin cancer (JLH; RAI).

#### Downsides:

Only two side effects noted were erotic dreams and increased sexual desire (RAI). As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

#### Extracts:

Both alkaline and hot water extracts inhibited *E. coli* and *Staphylococcus aureus* in mice, and also inhibited HIV antigen expression and cytopathic effects (X1525337).

**COCA (*Erythroxylum coca* Lam.) +****ERYTHROXYLACEAE****Illustrations:**

p 204 (CR2)

**Notes:**

The upland coca usually belongs to *E. coca* ssp. *coca*, while Amazonian coca is more often *E. novagranatensis* var. *ipadu*.

**Common Names:**

Boto (Maku; RAR); Coca (Eng.; Peru; Sp.; CR2; LOR; MDD; USN); Coca-a (Siona; SAR); Coca Coca (Peru; EGG); Coca del Peru (Cuba; RyM); Coca Truiuk (Dutch; EFS); Coco (Fr.; EFS); Colorado (Peru; RAR); Coniupa (Peru; RAR); Cuca (Peru; RAR); Cuca Cuca (Peru; EGG); Cucu (Peru; RAR); Fruta de Pomba (Brazil; RAR); Hay (Col.; Peru; RAR); Hayo (Col.; Peru; RAR); Huangana-Coca (Bora; SAR); Igua Tua (Karijona; SAR); Íipi (Bora; EGG); Ipadu (Brazil; Yakuna; RAR; SAR); Jaya (Col.; Ven.; RAR); Jiibiro (Peru; SOU); Jubiro (Ocaina; EGG; RAR); Ka Hee (Makuna; SAR); Kkoka (Aym.; EGG); Koka (Matsigenka; Nor.; Tur.; EFS; MD2); Kokastrauch (Ger.; EFS); Kuka (Amarakaeri; Aym.; Huachipaera; Que.; DLZ; MD2); Kuka Kuka (Aym.; DLZ); Motelo Caspi (Sp.; EGG; RAR); Murcu Varilla (Sp.; EGG; RAR); Pato (Tatuyo; SAR); Pa Too (Kubeo; SAR); Puca Llaja (Peru; EGG; RAR); Puertsaipan (Amuesha; RAR); Puetsatpan (Yanesha; EGG); Pussachpan (Peru; RAR); Shatona (Sp.; EGG; RAR); Urcu Ingaina (Sp.; EGG; RAR).

**Activities:**

Analgesic (f1; CRC; EFS; EGG; HHB); Anesthetic (1; CRC; PHR; PH2); Anorectic (f1; EGG; RAR; X6867056); Antifeedant (1; X16310975); Aperient (f; CRC); Aphrodisiac (f; CRC; JTR); Astringent (f; CRC); Bactericide (1; CRC); Carcinogenic (f; PHR); Carminative (f; CRC; EGG; JTR; MD2); CNS-Stimulant (1; CRC; PH2); Deobstruent (f; CRC); Depurative (f; CRC); Diaphoretic (f; MPB); Digestive (f; CRC; EGG; MPB); Diuretic (f; CRC; HHB); Embryotoxic (f; PHR); Euphoriant (f; CRC); Hallucinogen (f; CRC); Immunosuppressant (f; PHR); Insecticide (1; X16310975); Mydriatic (f; CRC); Narcotic (f; CRC); Nervine (f; CRC); Paralytic (1; PH2); Psychedelic (f; CRC); Stimulant (f; CRC); Stomachic (f; EGG); Tonic (1; HHB).

**Indications:**

Anemia (f; JTR); Arthrosis (f; JTR); Asthma (f; CRC; EGG; HHB; MPB); Bacteria (1; CRC); Bites (f; EGG); Bleeding (f; CRC; EGG); Cancer (f; CRC); Cardiopathy (f; MD2; SAR); Childbirth (f; DAV; MD2); Colds (f; MD2); Colic (f; DLZ; MD2); Conjunctivitis (f;

CRC); Coughs (f; MD2); Dermatitis (f; CRC); Diarrhea (f; DAV; DLZ; EGG); Dyspepsia (f; CRC; DAV; JTR); Eczema (f; CRC); Edema (f; CRC); Enterosis (f; DAV); Epistaxis (f; CRC); Fatigue (f1; CRC; DAV; EGG; MPB); Fracture (f; CRC); Gas (f; CRC; EGG; JTR; MD2); Gastrosis (f; CRC); Gingivitis (f; CRC; JTR); Gout (f; CRC); Headache (f; CRC; DAV; MD2); Hemorrhoids (f; CRC); Hoarseness (f; CRC); Hunger (f; DAV; HHB); Hypochondria (f; CRC; HHB); Hysteria (f; JTR); Impotence (f; CRC; JTR); Infection (1; CRC); Itch (f; CRC); Melancholy (f; CRC); Nausea (f; CRC); Nervousness (f; CRC); Neuralgia (f; CRC); Neurasthenia (f; CRC); Neurosis (f; CRC); Obesity (f; JTR); Ophthalmia (f; CRC); Pain (f1; CRC; DLZ; EFS; EGG; HHB; PHR; PH2); Pharyngitis (f; MD2; ROE); Rabies (f; JTR); Respirosis (f; DAV); Rheumatism (f; CRC; DAV; DLZ); Side Ache (f; CRC); Sores (f; CRC); Sore Throat (f; MD2; ROE); Soroche (1; CRC; HAD; JAD); Splenitis (f; CRC); Stings (f; EGG); Stomachache (f; CRC; DAV; DLZ; EGG); Stomatitis (f; CRC; JTR); Swelling (f; CRC); Syncope (f; CRC); Tetanus (f; JTR); Throat (f; CRC); Toothache (f1; EGG; FNF); Wounds (f; CRC).

### Dosages:

FNFF = !! Leaves chewed or better sucked in a quid, or made into a tea (mate); extracts used in making cola beverages (FAC; JAD). Leaf infusion for colic and diarrhea; leaf tincture massaged onto rheumatic pain (DLZ). Individual dose, 3 g dry leaf (HHB). Maximum individual dose 30 mg cocaine (HHB).

- Bolivians suggest the leaf infusion for colic and diarrhea (DLZ).
- Bolivians suggest the leaf tincture massaged onto rheumatic pains (DLZ).
- Cubans in Oriente use powdered leaves as an aphrodisiac in impotence (JTR).
- Madre de Dios Peruvians gargle leaf infusion with salt and a little dragon's blood for cough and sore throat (MD2).
- Madre de Dios Peruvians take leaf infusion for colds, colic, cough, diarrhea, gas, headache, and heart problems (MD2).
- Peruvians apply mashed leaves to bug, spider bites, and stings (EGG).
- Peruvians chew the leaves for toothache (EGG).
- Peruvians take leaf infusion as analgesic, carminative, hemostat, and stomachic, for diarrhea, fatigue, and stomachache, taking the decoction for asthma (EGG).

### Downsides:

Not covered (AHP; AH2). Classified as a drug, which must normally be registered as pharmaceutical speciality (AEHD). Embryotoxic; cocaine passes into the fetus and mother's milk (PHR). In high doses may paralyze motor neuron fibers (PH2). As of July 2007, the FDA Poisonous Plant Database listed 45 titles alluding to toxicity of this species.

### Extracts:

Coca leaf chewing suggested as therapy for cocaine maintenance (Ann Med Interne (Paris). 2000 Oct;151 Suppl B:B44–8). Seeds contain methylecgonidine, tropine, 3 $\alpha$ -acetoxytropine, ecgonine methyl ester, cuscohygrine, N-norbenzoyltropine, benzoyltropine, hexanoylcocaine methyl ester, cocaine, cis-cinnamoylcocaine, and trans-cinnamoylcocaine (X16382835).

## MULUNGÚ (*Erythroxylum verna* Vell.) +

### FABACEAE

### Synonyms:

*Erythroxylum mulungu* Mart. ex Benth.

**Notes:**

Taylor (2005) notes that mulungú is known as both *E. mulungu* and *E. verna*, but McGuffin et al. (2000) and USDA Nomenclature Database (USN) relate the standardized common name to *E. verna*. Taylor adds that the national flower of Argentina, *E. crista-galli*, is used interchangeably in South American herbal systems (RAI). I suspect RAI entries could then relate to all three names. Red-and-black seeds from this genus, like those of *Abrus* and *Ormosia*, often show up in ornamental necklaces.

**Common Names:**

Amerikadeigo (Sa.; RAI); Ávore de Coral (Sa.; RAI); Capahomen (Sa.; RAI); Ceibo (Sa.; RAI); Chilichi (Sa.; RAI); Chopo (Sa.; RAI); Corticeira (Sa.; RAI); Flor de Coral (Sa.; RAI); Hosoba Deiko (Sa.; RAI); Muchocho (Sa.; RAI); Mulungú (Brazil; Por.; Scn.; AH2; RAI; USN); Mulungu (Brazil; Por.; MPB; USN); Mulungu Coral (Sa.; RAI); Murungo (Sa.; RAI); Murungu (Sa.; RAI); Pau Imortal (Brazil; Sa.; RAI); Suiná-Suiná (Sa.; RAI); Totocero (Sa.; RAI).

**Activities:**

Analgesic (1; RAI); Antiarrhythmic (f; RAI); Antidepressant (1; RAI); Antiedemic (f; RAI); Antiinflammatory (f; RAI); Antinicotinic (1; RAI); Antiseptic (f1; RAI); Antispasmodic (f; MPB); Antitussive (f; MPB); Bactericide (1; RAI); Carminative (f; MPB); CNS-Depressant (1; RAI); Curare (1; RAI); Diuretic (f; RAI); Hepatoprotective (f; RAI); Hypotensive (1; RAI); Lactagogue (f; RAI); Narcotic (f; MPB); Nervine (f; RAI); Sedative (f1; RAI); Tranquilizer (1; RAI).

**Indications:**

Agitation (f; RAI); Anxiety (1; RAI); Arrhythmia (f; RAI); Asthma (f; RAI); Bacteria (1; RAI); Bronchosis (f; RAI); Cancer, stomach (f; RAI); Cardiopathy (f; RAI); Convulsions (f; RAI); Coughs (f; MPB); Cystosis (f; RAI); Depression (f1; RAI); Diarrhea (f; MPB); Dyslactea (f; RAI); Dysuria (f; MPB); Edema (f; RAI); Epilepsy (f; RAI); Fever (f; RAI); Gas (f; MPB); Gastrosis (f; RAI); Gingivosis (f; RAI); Headache (f; RAI); Hemorrhoids (f; MPB); Hepatosis (f; MPB); Hernia (f; RAI); High Blood Pressure (1; RAI); Hysteria (f; RAI); Infection (f1; RAI); Inflammation (f; RAI); Insomnia (f1; RAI); Malaria (f; RAI); Menopause (f; RAI); Myalgia (f; RAI); *Mycobacterium* (1; RAI); Nervousness (f; RAI); Neuralgia (f; RAI); Oliguria (f; RAI); Ophthalmia (f; RAI); Pain (f1; RAI); Palpitations (f; RAI); Pertussis (f; RAI); Respirosis (f; MPB; RAI); Rheumatism (f; RAI); Sore Throat (f; RAI); Spasms (f; MPB; RAI); Splenosis (f; RAI); *Staphylococcus* (1; RAI); Stomachache (f; RAI); Stress (f1; RAI); UTIs (f; RAI); Wounds (f; RAI).

**Dosages:**

FNFF = ? ½ cup root bark decoction 1–2×/day (RAI); 1–2 ml root bark tincture (4:1) 1–2×/day (RAI).

- Argentinians use (*E. crista-galli*) as antiseptic and sedative, for diarrhea, hemorrhoids, respiratory and urinary infections (RAI).
- Brazilians use for agitation, anxiety, asthma, bacteria, bronchitis, convulsions, cough, cuts, epilepsy, fever, gingivitis, hepatitis, hysteria, infection, inflammation, insomnia, menopause, myalgia, nervousness, neuralgia, pain, pertussis, rheumatism, sore throat, splenosis, and stress (RAI).
- Colombians use as diuretic and sedative (RAI).
- Peruvians use for cystitis, epilepsy, hysteria, insomnia, and ophthalmia (RAI).

**Downsides:**

As a sedative, the plant could cause drowsiness. May potentiate anti-stress and antihypertensives (RAI).

**Extracts:**

The hydroalcoholic extract has been compared to diazepam (RAI). Citing hepatoprotective capacity, Taylor suggests that mulungú might be poised as a potential replacement for kava (RAI).

**FRAILEJÓN (*Espeletia schultzii* Wedd.) +  
ASTERACEAE**

**Common Names:**

Frailejón (Ven.; MPG); Frailejón Chirique (Ven.; MPG); Frailejón de Octubre (Ven.; MPG); Frailejón de Paramo (Ven.; MPG); Frailejón Manso (Ven.; MPG).

**Indications:**

Asthma (f; MPG); Earache (f; MPG); Nephrosis (f; MPG); Pain (f; MPG); Pulmonosis (f; MPG); Rheumatism (f; MPG).

**Dosages:**

FNFF = ? Cheese and butter wrapped in leaves to impart flavor (MPG).

**AMAZON LILY (*Eucharis* sp.) +  
AMARYLLIDACEAE**

**Illustrations:**

fig 103 (DAV) (*E. castelnaeana*)

**Notes:**

For this one I only found emetic as a folklore, so I did something I have not been doing for the other Amazon species on which I am compiling. I went through the activities for lycorine and entered those activities followed by 1 FNF (1 means chemical rationale) and FNF confesses that the herb contained lycorine which is reported to have the following activities in FNF. Without knowing how much lycorine is there, this is reductionism on my part. But many Amaryllidaceae are loaded with lycorine and other rather similar alkaloids, like the newly approved galanthamine (for Alzheimer's). At least thirteen alkaloids have been reported from "Amazon lily." It is stated that the extracts have anti-acetylcholinesterase activity, meaning that these alkaloids are there at bioactive levels (X12793460).

**Common Names:**

Amanga (Peru; SOU); Amangais Blanco (Sp.; USN); Amangay (Sp.; USN); Amazon Lily (Eng.; DAV); Azuzena (Sp.; USN); Barba de Chivo (Peru; Sp.; LOR); Delia (Peru; Sp.; LOR); Eucharist-Lily (Eng.; USN); Konsi Achipa Cho (Kofan; SAR); Lilea (Peru; Sp.; LOR; MDD); Lirio de Amazonas (Peru; Sp.; MDD); Tumpaipi (Chiriguano; DLZ).

**Activities:**

Analgesic (1; FNF; KCH); Antiacetylcholinesterase (1; X12793460); Anticholinesterase (1; BRU; FNF; KCH; X12793460); Antifeedant (1; FNF; HDN); Antihepatotoxic (f; FNF; HDN); Antiherpetic (1; FNF; HH2; JBH); Antileukemic (1; FNF; HH2); Antilymphotoxic (1; FNF; HDN); Antimalarial (1; FNF; X14669261); Antimitotic (f; FNF); Antiplasmodial (f; FNF; X14669261); Antipolio (1; EMP5:200; FNF); Antitumor (f; FNF; HDN); Antiviral (f1; FNF; HH2; V&D); Cardiodepressant (1; FNF); Cardiotonic (1; FNF; FT64(6):522; HH2); CNS-Depressant (1; FNF; KCH); Cytotoxic (1; BRU; FNF; HHB); Emetic (f1; FNF; HDN; SAR; WOI); Expectorant (1; FNF; HHB); Febrifuge (1; FNF; HDN; HHB); Hypertensive (1; FNF; HH2); Hypnotic (1; FNF; KCH); Hypotensive (1; FNF; HDN; W&W); Myocontractant (1; FNF; KCH); Paralytic (1; BRU; FNF); Purgative (1; FNF; JE26:86); Respirostimulant (1; FNF); RT-Inhibitor (1; FNF; HH2); Sedative (1; FNF; KCH); Sialagogue (1; BRU; FNF); Tachycardic (1; FNF); Vasodilator (1; FNF; HDN).

**Indications:**

Alzheimer's (1; BRU; FNF; KCH; X12793460); Cancer (f; FNF; HDN); Constipation (1; FNF; JE26:86); Coughs (1; FNF; HHB); Fever (1; FNF; HDN; HHB); Hepatoma (f; FNF; HDN); Herpes (1; FNF; HH2; JBH); High Blood Pressure (1; FNF; HDN; W&W); Infection (1; FNF); Insomnia (1; FNF; KCH); Leukemia (1; FNF; HH2); Low Blood Pressure (1; FNF; HH2); Lymphoma (1; FNF; HDN); Malaria (f1; FNF; X14669261); Pain (1; FNF; KCH); Polio (1; EMP5:200; FNF); Stress (1; FNF; KCH); Viruses f1; FNF; HH2; V&D).

**Dosages:**

FNFF = ?

**Extracts:**

Lycorine: analgesic, anticholinesterase, antifeedant 0.05% diet, antihepatotoxic, antiherpetic 2.5 µg/ml, antileukemic 2.5 µg/ml, antilymphotoxic, antimalarial, antimitotic, antiplasmodial, antipolio 1 µg/ml, antiproteinigenic 100 µM/l, antipyretic, antitumor, antiviral 2.5 µg/ml, cardiodepressant, cardiotonic 10 mg/kg rat, CNS-depressant, cytotoxic, emetic, expectorant, febrifuge, herbistat, hypnotic, hypertensive 0.1 mg/kf rat), hypotensive, myocontractant, paralytic, purgative, reverse-transcriptase-inhibitor 2.5 µg/ml, respirostimulant, sedative, sialagogue, tachycardic, vasodilator, and viricide; LD50 = 41 ivn dog (FNF).

**SURINAM CHERRY (*Eugenia uniflora* L.) +++****MYRTACEAE****Illustrations:**

p 675 (LWW)

**Synonyms:***Eugenia brasiliiana* (L.) Aubl.; *E. michelii* Lam.; fide (USN).**Common Names:**

Arrayán (Arg.; Por.; Sa.; HH2; LWW; RAR); Brazil Cherry (Eng.; LWW; USN); Caaginja (Brazil; RAR); Cambuca (Brazil; RAR); Cayenne Cherry (Eng.; RAR); Cayennekirsche (Ger.; USN); Cereza Cuadrada (Col.; AVP); Cereza de Cayena (Cuba; Pr.; AUS; AVP; LWW); Cereza de Surinam (Pr.; LWW); Cerezo de Cayenna (Pr.; AVP); Cerise a Côtes (Fr.; Guad.; Mart.; AVP; HH2); Cerise Carrée (Guad.; Mart.; AVP); Cerise de Cayenne (Fr.; Guad.; Mart.; AVP; LWW); Cerises Côtes (Guad.; Mart.; AVP); Cerisier Carré (Fr. Guy.; Haiti; AVP); Cerisier de Cayenne (Fr. Guy.; AVP); Florida Cherry (Eng.; LWW); Grosela de Mexico (Dor.; AHL; LWW); Güili (Sp.; HH2); Guinda (Sal.; AUS; LWW); Honeyberry (Eng.; Saba; LWW); Ibipitanga (Por.; HH2); Ioioca (Brazil; RAR); Jabotipitanga (Brazil; RAR); Kirschmyrte (Dutch; HH2); Mirto (Sp.; HH2); Murta (Brazil; RAR); Nangapira (Arg.; AVP); Ñangapiri (Sp.; HH2); Nyangapire (Uru.; LWW); Nyangapiri (Arg.; LWW); Pitanga (Brazil; Col.; Guat.; Ocn.; Sp.; AH2; AVP; LWW; RAR; USN); Pitanga Amarella (Por.; HH2); Pitanga da Praia (Por.; USN); Pitanguiera (Brazil; Por.; HH2; LWW); Puca Quiro (Sa.; RAR); Rupinya (Sa.; RAR); Sarassa (Chuquitano; DLZ); Surinam Cherry (Eng.; Scn.; AH2; CR2; RAR; USN); Surinamkirsche (Ger.; USN); Ubajay (Guayaro; DLZ); Ubipitanga (Por.; HH2); Umirirana (Brazil; RAR).

**Activities:**

Anitdiarrheal (1; X8734966); Antihyperlipidemic (f; PH2); Antiinflammatory (1; X7898120); Antimycotic (1; PH2); Antioxidant (1; X12628400); Antirheumatic (f; EGG); Antiseptic (1; PH2; X12471432); Astringent (f1; EGG; PH2; RAR; X8734966); Bactericide (1; X12471432); Candidicide (1; X12471432); Cardioprotective (1; X10432205); Digestive (f; HH2); Diuretic (1; X10432205); Febrifuge (f; DLZ; EGG); Fungicide (1; HH2; X8015567); Hyperlipidemic (f; PH2); Hypotensive (f1; HH2; PH2; X10432205; X12020928); Insectifuge (f1; DAW; IED); Tonic (f; HH2); Trypanocide (1; X11483373); Vasodilator (1; X10432205); Vasorelaxant (1; X9232544); Xanthine-Oxidase-Inhibitor (1; HH2; PH2; X3437769).



**Indications:**

Arthritis (f; EGG); Bacteria (1; X12471432); *Candida* (1; X12471432); Cardiopathy (1; X10432205); Debility (f; DLZ); Dermatophyte (1; X8015567); Dermatitis (1; X8015567); Diarrhea (f1; HH2; PH2; X8734966); Edema (f; PH2); Enterosis (f; PH2); *Escherichia* (1; X12471432); Fever (f; DLZ; EGG; PH2; RAR); Fungus (1; HH2; PH2; X8015567); Gastrositis (f; PH2); Gout (f1; HH2; PH2); High Blood Pressure (f1; HH2; PH2; X10432205; X12020928; X9232544); Infection (1; HH2; PH2; X12471432; X14698521; X8015567); Inflammation (f1; PH2; X7898120); Mucositis (f; PH2); Mycosis (f1; HH2; X8015567); Obesity (f; PH2); Ophthalmia (f; PH2); Paralysis (f; DLZ); Respirosis (f; PH2); Rheumatism (f; EGG; HHB; RAR); Rhinositis (f; PH2); *Staphylococcus* (1; X12471432); Stomachache (f; HHB); Trypanosomiasis (1; X11483373).

**Dosages:**

FNFF = ! Fruits eaten raw, cooked, in jellies, or in juices (EGG).

- Bolivians use cooked fruit juice for debility and paralysis (DLZ).
- Bolivians use the leaf tea for fever (DLZ).
- Paraguayans use leaf decoction or infusion for treating gout (X3437769).

**Downsides:**

Not covered (AHP). "No health hazards are known in conjunction with the proper administration of designated therapeutic dosages" (PH2). As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**Extracts:**

Extract moderately bactericidal for *S. aureus* and *E. coli* (X12471432). Several studies show hypotensive and vasorelaxant activity in the extracts. Aqueous leaf extract antidiarrheal, increasing water absorption in intestinal transport and reduced gastrointestinal propulsion in mice (X8734966). Fresh leaf infusion shows good antiinflammatory activity (p.o. rats 1 h before sub-plantar injection of carrageenin) with no acute toxicity (X7898120). EO inhibited up to 80% of dermatophyte strains tested from patients with dermatophytosis, and produced inhibition zones more than 10 mm in diameter (X8015567). LD50 (dry ethanolic leaf extract) = >4,200 mg/kg orl mus (HH2); LD50 (dry ethanolic leaf extract) = 220 mg/kg ipr mus (HH2); LD50 (leaf extract) 220 mg/kg i.p. mus (X3437769).

**CHUZALONGO (*Eupatorium glutinosum* Lam.) ++****ASTERACEAE****Illustrations:**

p 112 (MPG)

**Common Names:**

Chuzalongo (Ecu.; MPG); Matico (Ecu.; MPG); Matigo (Ecu.; MPG); Migla (Ecu.; MPG); Yerba del Soldado (Ecu.; MPG); Nscn.

**Activities:**

Antiseptic (1; MPG); Bactericide (1; MPG); Cicatrizant (f; MPG); Eupeptic (f; MPG); Gram(+)-icide (1; MPG).

**Indications:**

Bacteria (1; MPG); Diarrhea (f; MPG); Gastrositis (f; MPG); Infection (1; MPG); Inflammation (f; MPG); Ulcers (f; MPG); Wounds (f; MPG).

**Dosages:**

FNFF = ? 1–2 cups decoction or infusion (1–5 leaves/cup water) (MPG).

- Ecuadorians apply mashed leaves directly over inflamed areas, sores, and wounds (MPG).
- Ecuadorians take 1–2 cups decoction or infusion (1–5 leaves/cup water) for diarrhea and ulcers, gargling as an antiseptic (MPG).

**RED SPURGE (*Euphorbia cotinifolia* L.) +  
EUPHORBIACEAE**

E

**Synonyms:**

*Euphorbia cotinoides* Miq.; fide (USN).

**Notes:**

Soukup (1970) equates *E. caracasana* as a synonym (SOU).

**Common Names:**

Acacu-i (Brazil; MPB); Assacui (Brazil; SAR); Carawa (Maku; RAR); Chepo (Col.; RAR); Coca del Monte (Peru; SOU); Huarus (Peru; RAR); Juaras Juquilla (Peru; SOU); Juquilla (Peru; RAR); Juquillo (Peru; RAR); Kachinoskotalu (Peru; SOU); Ksolmaje (Peru; SOU); Leiteira (Brazil; MPB); Maleiteira (Brazil; MPB); Red Spurge (Eng.; DAV; RAR); Sacha Coca (Peru; SOU); Yunkini (Bol.; Que.; DLZ); Yuquilla (Peru; Sp.; LOR; MDD); Yuquilla Negra (Peru; RAR).

**Activities:**

Antiherpetic (1; X12118288); Antiviral (1; X12118288); Atticide (f; DAV); Attifuge (f; IED); Cathartic (f; UPH); Caustic (f; IED); Contraceptive (f; RAR); Curare (f; RAR; SAR; UPH); Cytotoxic (1; X12118288); Emetic (f; IED); Insecticide (f; DAV); Molluscicide (1; X751112); Piscicide (f; EB26:234; RAR); Poison (f; UPH); Purgative (f; DLZ; IED; SAR); Vesicant (f; DAW).

**Indications:**

Alopecia (f; DLZ); Cancer (f; JLH); Condyloma (f; JLH); Constipation (f; DLZ); Dropsy (f; DLZ); Herpes (1; X12118288); Ostealgia (f; SAR); Pain (f; SAR); Sores (f; DAW); Syphilis (f; SAR); VD (f; SAR); Viruses (1; X12118288); Wounds (f; DAW).

**Dosages:**

FNFF = ?

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed 18 titles alluding to toxicity of this species.

**Extracts:**

Water and methanol extracts of leaf and stem exhibited antiherpetic activity; the dichloromethane leaf extract was cytotoxic (X12118288). Hexane leaf extract molluscicidal against *Biomphalaria glabrata* (X751112).

**POINSETTIA (*Euphorbia pulcherrima* Willd. ex Klotzsch) +****EUPHORBIACEAE****Synonyms:**

*Euphorbia pulcherrima* var. *plenissima* hort.; *Poinsettia pulcherrima* (Willd. ex Klotzsch) Graham; fide (USN).

**Common Names:**

Aijoyo (Ma.; JFM); Bandera (Mex.; JFM; JTR); Barbados Pride (Jam.; AVP); Bebeta (Ma.; JFM); Bibita (Mex.; JTR); Cardenal (Peru; EGG; JFM); Cardinal (Peru; SOU); Catalina (Sp.; JFM); Cataline (Fr.; AVP); Christmas Flower (Eng.; NPM; USN); Christmas Star (Eng.; USN); Clavellina (Dor.; AHL); Corazón de María (Cuba; AVP); Cuitla Xochitl (Maya; JFM); Dehomme (Haiti; AHL); Dèsaïson (Haiti; AVP); De Sezon (Creole; Haiti; VOD); Dèzohomme (Haiti; AVP); Drap Écarlate (Fr.; AVP); Estrella Federal (Bol.; DLZ); Feuilles de St. Jean (Haiti; AVP); Fèy Senjan (Creole; Haiti; VOD); Fleur de Feu (Fr.; AVP); Fleur de Pâques (Fr.; AVP); Flora de Noche Buena (Mex.; Peru; JFM; JTR; RAR); Flora de Santa Catarina (Mex.; JFM; JTR); Flor de Fuego (Mex.; JFM; JTR); Flor de Navidad (Bol.; DLZ; JFM); Flor-de-Papagaio (Brazil; Por.; USN); Flor de Pascua (Cuba; Dor.; Peru; AVP; EGG; JFM; JTR); Folha-de-Sangue (Brazil; Por.; USN); Golondrina (Cr.; AVP); Gota de Sangre (Col.; AVP); Guacamayo (Ma.; JFM); Halabakabu (Rai; NPM); Hecaphekwa (Limbu; NPM); Kerstster (Ma.; JFM); Lal-mapha (Sunwar; NPM); Lalpate (Danuwar; Tharu; NPM); Lalpate Mhendo (Tamang; NPM); Lalpatta (Bhojpuri; NPM); Lalpatya (Newari; NPM); Lalpote (Magar; NPM); Lalupate (Nepal; NPM); Lechosito (Ven.; AVP); Lobsterplant (Eng.; USN); Lophahirarip (Lepcha; NPM); Mexican Flameleaf (Eng.; USN); Nochebuena (Mex.; Ocn.; Sp.; AH2; JTR); Olat (Gurung; NPM); Paintedleaf (Eng.; USN); Paño de Holanda (Mex.; JFM; JTR); Paño Holandes (Mex.; JFM; JTR); Papagaio (Brazil; Por.; USN); Papagallo (Ma.; JFM); Papagayo (Ma.; JFM); Paraguas Turco (Ma.; JFM); Pascuas (Cuba; Pi.; AVP; JTR); Pascuita del Cayo (Cuba; JTR); Pasqua (Ma.; JFM); Pasquas (Ma.; JFM); Pastora (Cr.; JFM; JTR); Pastores (Nic.; JFM; JTR); Poinseta (Peru; EGG); Poinsetia (Brazil; Por.; USN); Poinsettia (Eng.; Scn.; AH2; CR2; USN; VOD); Poinsettie Éclatante (St. Bart.; AVP); Rabo de Arara (Ma.; JFM); Santa Catarina (Mex.; JFM; JTR); Shôjô Boku (Japan; TAN); St. Jean d'Hiver (Haiti; AHL; AVP); Wild Poinsettia (Bel.; Eng.; AAB). (American entries diacritically prepared).

**Activities:**

Analgesic (f; CRC; JFM); Antifeedant (1; X15228000); Antitumor (1; X8792663); Bactericide (1; CRC; EB31:35; EGG); Cytotoxic (1; X8792663); Depilatory (f; CRC; EGG; JFM; VOD); Emetic (f; CRC; EGG; JFM); Lactagogue (f; CRC; EGG; JFM; JTR; NPM); Molluscicide (1; X16253436); Piscicide (f; CRC); Poison (f; CRC); Toxic (f; RAR).

**Indications:**

Bacteria (1; CRC; EB31:35; EGG); Boils (f; NPM); Bugbites (f; JFM); Cancer (1; X8792663); Dermatitis (f; CRC; EGG; PCS; VOD); Dyslactea (f; NPM); Erysipelas (f; CRC; EGG; PCS; VOD); Infection (1; CRC; EB31:35; EGG); Pain (f; AAB; CRC); Toothache (f; CRC; EGG; JFM); Warts (f; CRC; EGG; JLH).

**Dosages:**

FNFF = ! Yes, young branchlets, leaves, and tops are eaten in Indonesia.

- Belizeans boil 9 whole plants in 1 gal water for 10 min making a liquid to bathe the breasts to increase milk flow and relieve swollen breasts (AAB).
- Costa Ricans cauterize bugbites with the latex (JFM).
- Floridians apply the latex to warts (JLH).
- Guatemalans use the latex as analgesic (in toothache), depilatory, and emetic (JFM).

- Latinos suggest stem latex as depilatory, poulticing leaves onto painful body areas (AAB).
- Mexican mothers take decoction (8 g leaf in 500 g water) as lactagogue (JFM; JTR).
- Nepalese apply the latex to boils (NPM).
- Nepalese suggest the floral tea as a lactagogue (NPM).

**Downsides:**

Not covered (AHP; KOM; PHR). As of July 2007, the FDA Poisonous Plant Database listed 138 titles alluding to toxicity of this species. Like Barbara Walters, having eaten a bract or two, I think the toxicity may be a bit overblown. Of 849,575 plant exposures reported to the American Association of Poison Control Centers, poinsettia accounted for 22,793. There were no fatalities among all poinsettia exposures, 98.9% were accidental in nature, with 93.3% involving children. Most patients (96.1%) were not treated in a health care facility and 92.4% did not develop any toxicity. Most patients do not require any type of therapy and can be treated without referral to a health care facility (X8906768).

**PARA PALM (*Euterpe edulis* Mart.) ++****ARECACEAE****Synonyms:**

*Euterpe beardii* Bailey (fide GMJ); *Palma pinao* Aubl.; fide (GMJ).

**Common Names:**

Açaí Branco (Por.; POR); Aççaí (Por.; GMJ); Aççaizeiro (Por.; GMJ); Assai Palm (Eng.; FAC; POR; USN); Cabbage Palm (Eng.; POR; RAR); Chonta (Sp.; RAR); Chonta Huasai (Peru; SOU); Coco de Palmito (Sp.; POR; USN); Edible Euterpe Palm (Eng.; POR); Euterpe (Fr.; USN); Euterpepalme (Ger.; POR); Euyol (Peru; SOU); Heart of Palm (Eng.; RAR); Huasai (Sp.; RAR); Iuçara (Brazil; MPB); Jiçara (Por.; MPB; USN); Juçara (Brazil; Por.; MPB; USN); Kålpalme (Nor.; POR); Ke Shi Ai Ta Zong (China; POR); Kohlpalme (Ger.; POR; USN); Manaka (Sp.; RAR); Manicol (Sp.; RAR); Nijintya (Peru; SOU); Ouisseye (Creole; Guy.; GMJ); Palmito (Peru; MPB; SOU); Palmito-Branco (Por.; POR; USN); Palmito Doce (Brazil; MPB); Palmito Juçara (Brazil; MPB); Para Palm (Eng.; FAC); Pino (Creole; Fr.; Guy.; GMJ); Pinot (Fr.; POR; USN); Ungurahui (Sp.; RAR); Was (Palikur; GMJ); Wasey (Wayãpi; GMJ); Wassaye (Creole; Guy.; GMJ); Xian Ye Zong (China; POR); Yuyu Chonta (Peru; SOU).

**Activities:**

Carminative (f; EGG; RAR); Cicatrizant (f; GMJ); Hemostat (f; MPB).

**Indications:**

Anemia (f; EGG; RAR); Bleeding (f; MPB); Dysmenorrhea (f; EGG; RAR); Gas (f; EGG; RAR); Hepatitis (f; EGG; RAR); Wounds (f; GMJ).

**Dosages:**

FNFF = !! Renewable “cabbage” (terminal buds) widely eaten (DAV; FAC). Fruit edible; used to make a beverage called “vino de huasai” (EGG; SOU).

**CABBAGE PALM (*Euterpe oleracea* Mart.) ++****ARECACEAE****Illustrations:**

fig 105 (DAV)

**Synonyms:**

*Euterpe badiocarpa* Barb. Rodr.; fide (USN).

**Notes:**

Shares many of the activities, common names, and uses with *Euterpe edulis*.

**Common Names:**

Açaí (Por.; GMJ; MPB; USN); Açaí da Várzea (Brazil; POR); Açaí do Baixo-Amazonas (Brazil; POR); Açaí-do-Igapó (Por.; POR); Açaí-do-Pará (Brazil; POR); Açaí Espada (Por.; POR); Açaí-Palme (Ger.; POR); Açaizeiro (Por.; GMJ; MPB; POR; USN); Asahi (Peru; Sp.; EGG; LOR); Asaí (Sp.; USN); Assai (Brazil; Por.; EGG; POR; RAR); Assai Palm (Eng.; Ocn.; AH2; USN); Cabbage Palm (Eng.; Scn.; AH2; FAC; POR; USN); Cansin (Amahuaca; EGG; RAR); Chonta (Peru; EGG); Euterpe (Sp.; USN); Euterpealme (Ger.; POR); Guasai (Peru; EGG); Hasabis (Peru; Que.; EGG); Huai (Peru; Ticuna; EGG); Huasaí (Peru; EGG); Juçara (Brazil; Por.; MPB; USN); Kohlpalme (Ger.; POR; USN); Manaca (Sur.; Ven.; POR); Morroke (Ven.; POR); Multistemmed Assai Palm (Eng.; POR); Ouasseye (Creole; Guy.; GMJ); Palisade Palm (Eng.; Sur.; POR); Palma Asai (Malaya; POR); Palmera de la Col (Sp.; POR); Palmiteiro (Brazil; MPB); Palmito (Peru; Sp.; LOR); Panan (Shipibo/Conibo; EGG); Pina (Fr. Guiana; POR); Pinau (Fr. Guiana; POR); Pino (Creole; Guy.; GMJ); Pinot (Fr.; POR; USN); Piriá (Brazil; MPB); Saké (Aguaruna; EGG); Shu Shi Ai Ta Zong (China; POR); Uassi (Ven.; POR); Ungurahui (Peru; EGG; MPB); Wapoe (Eng.; Sur.; POR); Was (Palikur; GMJ); Wasey (Wayâpi; GMJ); Wassaye (Creole; Guy.; GMJ); Yísará (Peru; EGG); Yuyuchonta (Peru; EGG).

**Activities:**

Antidiabetic (1; X15631504); Antileukemic (1; X16478240); Antioxidant (1; X15030208; X15631504); Antitumor (1; X16478240); Apoptotic (1; X16478240); Cicatrizant (f; GMJ); Depurative (f; DAV; MPB); Febrifuge (f; EGG; MPB); Insulinogenic (1; X15631504); Lipolytic (1; X15631504); Secretagogue (1; X15631504).

**Indications:**

Alopecia (f; EGG); Bleeding (f; EGG); Cancer (1; X16478240); Diabetes (f1; EGG; FNF; X15631504); Diarrhea (f; MPB); Fever (f; EGG; MPB); Hepatosis (f; EGG); Jaundice (f; DAV; EGG; MPB); Leukemia (1; X16478240); Malaria (f; EGG); Myalgia (f; EGG); Nephrosis (f; EGG); Obesity (1; X15631504); Sores (f; MPB); Wounds (f; GMJ).

**Dosages:**

FNFF = !! Renewable “cabbages” (from multiple stems) widely eaten as “heart of palm” (FAC). Fruit pulp added to water to make a purple beverage with tapioca and sugar (FAC). Roasted seed used as a coffee substitute (DAV).

- Brazilians suggest the fruit oil to curb diarrhea (MPB).
- Brazilians suggest the root tea as a blood fortifying remedy for jaundice (MPB).
- Brazilians suggest the seed tea as antifebrile (MPB).
- Peruvians suggest a decoction of roots of the huasai, huicongo, and ungurahui (all palms) for diabetes (EGG).
- Peruvians take the root decoction for baldness, diabetes, hemorrhage, hepatosis, jaundice, nephrosis, malaria, and myalgia (EGG).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

## PRECATORY ASSAI (*Euterpe precatoria* Mart.) ++

### ARECACEAE

**Illustrations:**

fig 106 (DAV)

**Notes:**

Trunks cut in strips are used in interior decoration. Maybe the locals are better than I at distinguishing *E. edulis*, *E. precatoria*, and *E. oleracea*. They have all been graced with names like assai.

**Common Names:**

Açaí (Brazil; Por.; Sp.; FAC; POR; USN); Açaí-da-Mata (Brazil; Por.; USN); Açaí-da-Terra-Firma (Por.; POR); Açaí-do-Alto-Amazonas (Por.; POR); Açaí-do-Amazonas (Por.; POR); Açaí-do-Mato (Por.; POR); Açaí-do-Terra-Firma (Por.; POR); Açaí Mirim (Por.; POR); Assai (Chiriguana; DLZ); Assai (Por.; POR); Baboen Pine (Eng.; Sur.; POR); Chonta (Peru; Sp.; LOR; POR); Guasai (Guayaro; DLZ); Guasay (Col.; Sp.; POR; SAR); Guassai (Por.; Sp.; Ven.; POR); Heart Palm (Eng.; DAV); Huasahi (Peru; Sp.; LOR); Huasai (Peru; Sp.; POR); Jissara (Chiquitano; Por.; DLZ; POR); Juçara (Brazil; Por.; USN); Manaca (Col.; SAR); Mountain Cabbage Palm (Eng.; POR); Palma de Rosario (Bol.; DLZ); Palma do Rosario (Bol.; Sp.; POR); Palmito (Peru; Sp.; LOR); Palmito Mole (Por.; POR); Precatory Assai (Contrived Eng.; JAD); Single-Stemmed Assai Palm (Eng.; POR); Ungurahui (Peru; EGG; RAR); Wapoeiema (Eng.; Sur.; POR); Yisara (Col.; SAR); Yuyu Chonta (Peru; SOU).

**Activities:**

Anticomplementary (f1; X15500263); Antiinflammatory (f1; X15500263); Antiplasmodial (1; JNP65:1915; X12502338); Immunomodulator (f1; X15500263).

**Indications:**

Dysmenorrhea (f; RAR); Inflammation (f1; X15500263); Malaria (1; JNP65:1915; X12502338).

**Dosages:**

FNFF = !!! Palm hearts (from single stems, hence not renewable) widely eaten; fruits used in refreshments (DAV; FAC; TAN).

**Extracts:**

A new 8–5' linked lignan, dehydrodiconiferyl dibenzoate, isolated from roots, showed moderate antiplasmodial activity ( JNP65:1915; X12502338).

## DWARF MORNING GLORY (*Evolvulus alsinoides* (L.) L.) + CONVOLVULACEAE

**Illustrations:**

p 230 (NPM); pl 668B (KAB)

**Synonyms:**

*Convolvulus alsinoides* L.; *Evolvulus filipes* Mart.; fide (POR; USN).

**Common Names:**

Cenicito (Sal.; AUS); Chickweed (Ma.; JFM); Chickweed *Evolvulus* (Bah.; AUS); Corre Corre (Brazil; AUS; MPG); Dwarf Morning Glory (Eng.; Scn.; AH2; POR; USN); Eriraro (Tigrinia; KAB); Flor de Santa Maria (Ven.; AUS); Ilusión Haitiana (Haiti; AUS); Ka Fi Malam (Hausa; KAB); Kalisankhavli (Guj.; ADP); Khunkhune Jhar (Nepal; NPM); Lin (Guad.; Mart.; AUS); Nilapushpi (Sanskrit; KAB); Ojitos Azules (Mex.; AUS); Ojo de Vibora (Mex.; AUS); Oreja de Raton (Sal.; AUS); Pata de Paloma (Hon.; AUS); Quiebra Cajita (Guat.; AUS); Retama de Sabana (Ven.; AUS); Sakmai (Sin.; KAP); Sankahuli (Yunani; KAP); Sankhapushpi (Ben.; Hindi; Nepal; KAP; WOI); Sankhpushpi (Ayu.; Pun.; Sanskrit; DEP; KAB; KAP); Santa Lucia (Ven.; AUS); Shankhapushpi (Sanskrit; POR); Shankhavalalli (Bom.; KAB); Shankhdvalli (Bom.; DEP); Shankpushpi (Sanskrit; ADP; POR); Shyamakranta (Hindi; KAB; WOI); Sia Sua (Maya; Mex.; AUS); Tandikodebaha (San.; KAB); Tandi Kode Baha (San.; DEP); Tebenque (Cuba; JTR); Tsoots Ts'ul (Maya; Mex.; AUS); Vahimpasika (Madagascar; KAB); Vishnugandhi (Ben.; Sanskrit; ADP; DEP; WOI); Vishnu Gandhi (Sanskrit; AUS); Vishnu Karandi (Tam.; ADP; KAB; WOI); Vishnukaranta (Tam.; Tel.; ADP; KAB; WOI); Vishnukiranthi (Tam.; KAP); Vishnu Kranta (Kan.; Mar.; Sanskrit; Sin.; Tel.; ADP; AUS; DEP; KAB; KAP; WOI); Vishnu Kranti (India; Kan.; Tam.; AUS; KAB; WOI); Vistnaclandi (Mal.; ADP; WOI); Vistny Clandi (India; AUS); X-Haway (Maya; Mex.; AUS); Xia Xua (Maya; Mex.; AUS; MAX); Yerba de Sabana (Ven.; AUS).

**Activities:**

Adaptogenic (1; X15899513); Alexiteric (f; KAB); Alterative (f; KAB; KAP); Anthelmintic (f; KAB; KAP); Antiamnesic (1; X15899513); Antiarthritic (1; X14499177); Anticatatonic (1; AUS); Antidementic (1; X15899513); Antiedemic (1; X14499177); Antiinflammatory (f1; KAP; X14499177); Antioxidant (1; X12648805); Antiulcer (f1; AUS); Aphrodisiac (f; ADP); Astringent (f; DEP; KAB); Bitter (f; AUS; MPB); Cardiodepressant (1; KAP); Cerebrotonic (f; AUS; DEP); CNS-Depressant (f; AUS); Febrifuge (f; AUS; JTR; KAB; MPB); Gastroprotective (f; AUS); Hemostat (f; ADP; KAB); Immunomodulator (1; X14499177); Memorigenic (f1; KAB; X15899513); Neuroprotective (1; X12648805); Nootropic (f; KAB); Orexigenic (f; KAB); Propecic (f; ADP; WOI); Tonic (f; AUS; KAP; MPB; NPM); Vermifuge (f1; KAP; WOI).

**Indications:**

Acne (f; NPM); Alopecia (f; ADP; WOI); Amnesia (f1; KAP; X15899513); Anorexia (f; KAB); Arthrosis (1; X14499177); Asthma (f; DEP; JFM; KAP; NPM); Biliousness (f;

KAB); Bleeding (f; ADP; DEP; KAB); Boils (f; NPM); Bronchosis (f; JFM; KAB; KAP; NPM); Debility (f; KAP); Dementia (f1; AUS; KAB; X15899513); Dentition (f; KAB); Dermatitis (f; AUS); Diarrhea (f; KAB; KAP); Duodenosis (f; AUS); Dysentery (f; JFM; KAB; KAP); Dyspepsia (f; KAB; KAP); Edema (1; X14499177); Enterosis (f; AUS; JTR; KAP); Epilepsy (f; KAB; X15899513); Fever (f; AUS; JTR; KAB; MPB); Gastrosis (f; AUS; JTR); Gonorrhoea (f; JFM; MAX); Hysteria (f; ADP); Impotence (f; ADP); Inflammation (1; KAP; X14499177); Leukoderma (f; KAB); Memory (f1; KAB; X15899513); Neurosis (f; AUS); Rheumatism (1; X14499177); Sores (f; ADP; AUS); Stomachache (f; MPB); Ulcers (f1; AUS); VD (f; JFM; MAX); Whitlow (f; ADP); Worms (f1; KAB; KAP; WOI).

**Dosages:**

FNFF = ? 24–48 ml (–112 ml) herb tea (KAP); 3–6 grains powdered herb (KAP).

- Asian Indians smoke leaves for asthma and bronchitis (JFM; KAB), mixing with tulsi for diarrhea and dyspepsia (KAP).
- Ayurvedics consider as alexiteric, alterative, anthelmintic, and nootropic, using for anorexia, biliousness, bronchitis, epilepsy, leukoderma, and teething (ADP; KAB).
- Cubans use plant decoction for fever and chronic stomach problems (JTR).
- Hausa smoke leaves for asthma and bronchitis (KAB).
- Hindus decoct with holy basil for diarrhea and dyspepsia (KAB).
- Madagascan use root for diarrhea (KAB).
- “Muhammadan physicians believe that this plant has the power to strengthen the brain and memory” (DEP; KAB).
- Sri Lankans use as bitter tonic and febrifuge (KAB).
- Tamools take leaf/root/stem tea for bowel ailments (KAB).
- Yucatanese take the bitter decoction for gonorrhoea (JFM).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**SEA THYME (*Evolvulus arbuscula* Poir.) +  
CONVOLVULACEAE**

**Notes:**

Finding no standardized common names in McGuffin et al. (2000) or the USDA Nomenclature Database (USN), I reluctantly take on the “sea thyme” as a common name rather than inventing another.

**Common Names:**

Romerillo (Dom.; AVP); Seaside Thyme (Eng.; JFM); Sea Thyme (Eng.; JFM); Tebenque (Cuba; JFM; JTR); Tebenque de Oriente (Cuba; JFM; JTR). (Nscn).

**Indications:**

Cardiopathy (f; AUS; JFM); Catarrh (f; JFM); Dyspepsia (f; JFM); Fever (f; JFM); Gas (f; JFM); Gastrosis (f; JFM); Neurasthenia (f; JFM); Stomachache (f; JFM).

**Dosages:**

FNFF = ?

- Cubans use decoction or tea for catarrh, fever, and neurasthenia (JFM).
- Jamaicans take the tea for bellyache, gas, and the heart (JFM).





# F

## FALSE COFFEE (*Faramea occidentalis* (L.) A. Rich) ++

### RUBIACEAE

#### Illustrations:

fig 242, p 511 (L&W)

#### Synonyms:

*Faramea belizensis* L.; *F. zetekii* Standl.; *Ixora occidentalis* L.

#### Common Names:

Anabaco (Dor.; AHL; AVP); Bastard Allspice (Bel.; BNA); Bel de Nuit (Creole; Haiti; VOD); Benjamin (Pan.; TBC); Bois Flèche (Guad.; Haiti; AVP; L&W); Bonewood (Pan.; TBC); Bwa Flèsh (Creole; Haiti; VOD); Caballo Sanango (Peru; Sp.; DAV; LOR); Cafecillo (Sal.; AVP; L&W); Cafecillo Danta (Ven.; AVP); Café Cimarrón (Cuba; Pr.; L&W); Café Marron (Guad.; AVP); Cafetillo (Cuba; Dor.; Pr.; Sal.; AVP); Cafetillo de Monte (Ecu.; AVP; L&W); Clavito (Dor.; AHL; AVP); Eldorado (Bel.; BNA); Galán de Noche (Cuba; AVP); Galan de Nuit (Creole; Haiti; VOD); Hiquillo (Cuba; L&W); Huesito (Pan.; AVP; TBC); Hueso (Mex.; AVP; L&W); Jasmen (Creole; Haiti; VOD); Jasmen dèz Étwal (Creole; Haiti; VOD); Jasmín de Estrella (Ven.; AVP; L&W); Jucano (Cuba; AVP); Júcaro (Cuba; L&W); Jújano (Cuba; Ecu.; L&W); Jújumo (Ecu.; AVP); Kafé Mawon (Creole; Haiti; VOD); Nabaco (Cuba; AVP; L&W; RyM); Night Bloom (Bel.; BNA); Palo de Toro (Pr.; AVP); Wild Coffee (Bel.; Eng.; Jam.; L&W; VOD). (Nscn; American entries diacritically prepared).

#### Activities:

Antiseptic (f; VOD); Hemostat (f; AHL).

#### Indications:

Anemia (f; VOD); Bleeding (f; AHL; DAV); Diarrhea (f; VOD); Dysmenorrhea (f; DAV); Infection (f; VOD); Metrorrhagia (f; DAV); Wounds (f; AHL).

#### Dosages:

FNFF = ?

- Dominicans use grated wood to stop bleeding (AHL).

## ANTIDOTE VINE (*Fevillea cordifolia* L.) ++

### CUCURBITACEAE

#### Illustrations:

fig 107 (DAV); fig 18 (GMJ)

#### Common Names:

Antidote Caccoon (Wi.; JFM); Antidote Cocoon (Wi.; JFM); Antidote-Vine (Eng.; FAC; USN); Bejuco de Higuera Cimarrona (Ma.; JFM); Bejuco Habilla (Ma.; JFM); Cabalonga

(Peru; Sp.; LOR; MDD); Cacorne Poison (Haiti; AVP); Cacorne Zombi (Haiti; AVP); Chichemora (Ma.; JFM); Chichimora (Ma.; JFM); Cobalunga (Peru; Sp.; USN); Contra-veneno (Ma.; JFM); Feville (Haiti; AVP); Habilla (Col.; Peru; Sp.; AVP; LOR); Habilla Grande (Peru; SOU); Hayama (Dor.; AVP); Hayamo (Dor.; AVP); Higuerrilla (Sp.; AVP); Horse Eyes-Cocoons (Wi.; AVP); Jabilla (Sp.; USN); Jayama (Dor.; AVP); Jindiroba (Haiti; AVP); L'ane Savonette (Fwi.; AVP); Liane a Callebasse (Guad.; Mart.; AVP); Liane Contre-Poison (Fwi.; AVP); Nacha (Sp.; JFM; USN); Nandhiroba (Haiti; AVP); Nandhirobe des Antilles (Haiti; AVP); Nandiroba (Por.; AVP); Necha (Col.; AVP); Necho (Ma.; JFM); Noix de Serpente (Fwi.; AVP); Olla de Mono (Ma.; JFM); Pepita Amarga (Pr.; AVP); Pepa de Cruz (Ma.; JFM); Sabo (Ma.; JFM); Secua (Pr.; AVP); Segra Seed (Ma.; JFM); Semina Handirobae (Sp.; SOU); Sequa (FAC); Tanta Hawilla (Que.; DLZ); Ti Concombre (Fr.; Fwi.; Guad.; Mart.; AVP; USN); Uyama (Pr.; AVP); Wilapalai (Wayãpi; GMJ); Yabilla (Ma.; JFM).

### Activities:

Antidote (f; DAW); Antidote (hippomane) (f; DAW); Purgative (f; DAW; SOU); Soap (f; DAW); Toxic (f; JFM).

### Indications:

Cancer, lung (f; JLH); Colic (f; JFM); Constipation (f; DAW); Dermatitis (f; DAW); Dropsy (f; DAW); Enterosis (f; JFM); Erysipelas (f; DAW); Fever (f; JFM); Gastrosis (f; JFM); Hepatitis (f; DAW); Jaundice (f; DAW); Leprosy (f; DAW); Lumbago (f; JFM); Rheumatism (f; DAW); Snake Bite (f; DAW); Sprains (f; JFM); Stomachache (f; JFM); Wounds (f; JFM).

### Dosages:

FNFF = ? Though the seed oil is described as edible (FAC), it may also be poisonous and purgative (JAD). Pulverized seed tincture used as a liniment in lumbago and rheumatism (JFM).

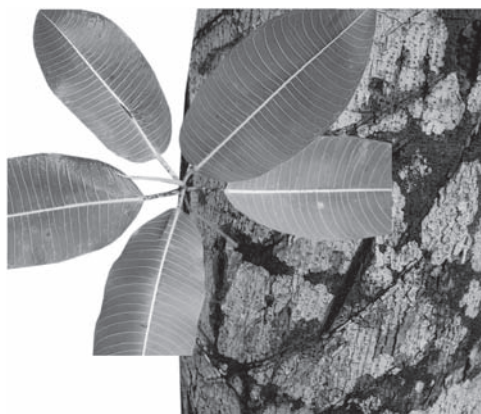
- Brazilians take 1 seed for jaundice (JFM).
- Grated seeds plastered onto snake bite, sprains, and wounds (JFM).
- Puerto Ricans take strained grated seed tincture for colic and stomachache (JFM).

### Downsides:

Large doses toxic (JFM). As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

## DOCTOR OJE (*Ficus insipida* Willd.) +

### MORACEAE



**Illustrations:**

fig 108 (DAV)

**Synonyms:**

*Ficus anthelminthica* Mart.; *F. glabrata* HBK.

**Notes:**

Even though I found three English names applied in Central America, I like the name “Doctor Oje,” so I selected that.

**Common Names:**

Akumboe' (Amarakaeri; MD2); Amate (Ma.; JFM); Apui Asu (Brazil; MPB); Bamba (Ingano; SAR); Bibosi (Guarayo; DLZ); Caucho Menudita (Ma.; JFM); Caxinguba (Brazil; MPB); Chilamate (Ma.; JFM); Chilamaton (Ma.; JFM); Chuare Blanco (Ma.; JFM); Coajinguva (Ma.; JFM); Coajunguba (Ma.; JFM); Coaxinguba (Brazil; JFM; MPB); Deer Fig (Eng.; JFM); Doctor Oje (Peru; Sp.; LOR; MDD; USN); Etóna (Ese'ēja; MD2); Etsóna (Ese'ēja; MD2); Figueira do Mato (Brazil; MPB); Gameleira Branca (Brazil; MPB; RAR); Gameleira Mansa (Ma.; JFM); Gameleira Roxa (Brazil; MPB); Guapay (Chiriguano; DLZ); Higo (Garifuna; IED); Higueron (Col.; SAR); Higueroncillo (Bol.; DLZ); Higueirote (Ma.; JFM); Hoi (Amahuaca; MD2); Hoje Huito (Sp.; SOU); Huitoc (Peru; RAR); Iva (Chiriguano; DLZ); Jipalo (Peru; SOU); Leche de Oje (Sp.; USN); Lombriguiera (Brazil; MPB; SAR); Mata Palo (Ma.; JFM); Merepopa (Huachipaeri; MD2); Moro (Chocobo; DLZ); Oje (Chiquitano; Peru; Sp.; DLZ; LOR; MDD; USN); Pota (Tikuna; SAR); Pótogo (Matsigenka; MD2); Red Fig (Bel.; BNA); Renaco (Peru; RAR); Shomi (Shipibo; MD2); Toron (Bol.; Yurocare; DLZ); Uapim Acu (Ma.; JFM); Wild Fig (Eng.; JFM); Xovin (Amahuaca; RAR); Yomun Choco (Amahuaca; RAR).

**Activities:**

Antiinflammatory (f; DAV); Antiseptic (f1; DLZ; 60P); Antitumor (f1; 60P); Aphrodisiac (f; SAR); Artemicide (1; 60P); Caustic (f; RAR); Cicatrizant (f; DLZ); Laxative (f; 60P); Memory-rogenic (f; RAR; SAR); Parasiticide (f1; 60P); Proteolytic (1; 60P); Purgative (f; RAR); Stimulant (f; RAR); Tonic (f; MD2; RAR); Toxic (1; X10363841; X15814256); Vermifuge (f; MD2; RAR).

**Indications:**

Alzheimer's (f; RAR; SAR); Ancylostomiasis (f; MPB); Anemia (f; SOU); Anorexia (f; SOU); Cancer (f1; 60P); Cheilosis (f; DLZ); Constipation (f; 60P); Dyspepsia (f; IED); Enterosis (f; CTD); Fever (f; SOU); Fracture (f; DLZ); Gastrosis (f; DLZ); Impotence (f; SAR); Infection (f1; DLZ; 60P); Inflammation (f; DAV); Jaundice (f; MPB); Malaria (f; DLZ; JFM); Memory (f; RAR; SAR); Pain (f; IED); Parasites (f1; CTD; 60P); Rheumatism (f; CTD; DAV); Snake Bite (f; MD2); Sores (f; DLZ); Stings (stingray) (f; MD2; 60P); Stomachache (f; IED); Stomatosis (f; DLZ); Ulcers (f; DLZ); Worms (f; RAR); Wounds (f; DLZ).

**Dosages:**

FNFF = ! Fruit edible (DLZ; IED).

- Bolivians apply latex to sores of the lip and mouth (DLZ).
- Bolivians apply latex to wounds as antiseptic and cicatrizant (DLZ).
- Bolivians take the root decoction for gastric ulcers (DLZ).
- Madre de Dios Peruvians, like most ethnic groups from Bolivia to Central America, use the latex as a vermifuge (MD2).
- Nicaraguan Garifuna apply the sap infusion or poultice orally or topically for aches, pains, and dyspepsia (IED).
- Peruvians apply a few drops of the latex to stingray stings and snake bites (MD2).

**Downsides:**

Latex caustic to the eye; dry latex oculo- and dermo-irritant; 10–15% solution has killed experimental cats, guinea pigs, and rats within 24 hr (JFM). Most of 39 reported toxic reactions over a 12-year period near Pucallpa were probably due to overdose, defined as more than 1.5 cm(3)/kg, the recommended dose being 1 cm(3)/kg. In five cases toxic reactions occurred at the lower doses but were viewed as idiosyncratic reactions, all were children, and in two cases was severe reaction. Three fatal outcomes were observed in the 12-year period (estimated mortality rate 0.01–0.015%). Severe cases experienced cerebral edema. Treatment was osmotic diuresis with mannitol (started in 1996) (X15814256). Though traditionally used in Central and South America as a vermifuge, its use is not recommended due to high acute toxicity with hemorrhagic enteritis in addition to it being only slightly anthelmintic (X10363841). As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

# G

## AJO (*Gallesia integrifolia* (Spreng.) Harms.) ++

### PHYTOLACCACEAE

#### Notes:

Rasped bark smells like garlic, yet holes in the tree trunk are said to be a favorite roosting place for bats.

#### Common Names:

Ajo (Peru; SOU); Ajos Quiro (Peru; RAR); Palo Cebolla (Peru; RAR); Palo de Ajo (Peru; Sp.; LOR; MDD); Palo de Cebolla (Peru; Sp.; LOR; MDD); Shitiroqui (Ashaninka; RAR).

#### Activities:

Antioxidant (1; 60P); Antiradicular (1; 60P); Febrifuge (f; 60P); Fungicide (1; 60P).

#### Indications:

Fever (f; 60P); Fungus (1; 60P); Infection (1; 60P); Mycosis (f; 60P); Sorcery (f; DAV).

#### Dosages:

FNFF = ?

- Peruvian Ese'aja use the leaf infusion as a febrifuge (60P).

## CALDERONA AMARILLA (*Galphimia glauca* Cav.) +

### MALPIGHIACEAE

#### Synonyms:

*Thryallis glauca* (Cav.) Kuntze; fide (USN).

#### Activities:

Analgesic (f; JNP65:1457); Anticonvulsant (f1; JNP65:1457; X16142633); Antidepressant (1; X16360929); Antihistaminic (1; JNP65:1457); Antileishmanic (1; JNP65:1457; X12398543); Antileukotriene (1; X11137344); AntiPAF (1; X1582692); Antiplasmodial (1; JNP65:1457); Antispasmodic (1; X16142633); Antitrypanosomic (1; JNP65:1457); Anxiolytic (1; X16441069); CNS-Depressant (1; JNP65:1457); Emollient (f; DAW); Insecticide (1; DAW); Myorelaxant (1; JNP65:1457); Poison (1; LEL); Protisticide (1; JNP65:1457); Sedative (1; JNP65:1457; X10193207); Tranquilizer (f; JNP65:1457); Trypanocide (1; JNP65:1457); Vasorelaxant (1; JE46:63).

#### Indications:

Allergies (f1; JNP65:1457; X11137344); Asthma (f; X11137344); Cardialgia (f; JNP65:1457); Cardiopathy (f; JNP65:1457); Convulsions (f1; JNP65:1457; X16142633); Cramps (1; X16142633); Depression (1; X16360929); Diarrhea (f; JNP65:1457); Dysentery (f; JNP65:1457); Enterosis (f; JNP65:1457); Gastrosis (f; JNP65:1457); Insomnia (1; JNP65:1457; X10193207); *Leishmania* (1; JNP65:1457; X12398543); Malaria (f1; JNP65:1457); Nervousness (f1;

JNP65:1457); Pain (f; JNP65:1457); Pollinosis (1; JNP65:1457); Psychosis (f; JNP65:1457); Stress (1; X16441069); Trypanosomiasis (1; JNP65:1457); Urogenitosis (f; DAW); Wounds (f; DAW).

**Dosages:**

FNFF = ?

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**Extracts:**

Gallic acid, methyl gallate, and quercetin showed significant antiasthmatic effects after doses of 45 mg/kg, tetragalloyl quinic acid after 5 mg/kg. Continuous treatment of the animals with one fraction (GG II, 3 days, 3 × 2 mg/kg) containing all active compounds reduced allergen- and PAF-induced bronchial reactions more than 70% (X1582692). And here's that ubiquitous quercetin again. Quercetin was the only isolate weakly active as protistocide (IC<sub>50</sub> = 14 μM) against *Plasmodium*, 13.2 μM against *Trypanosoma*, and 63.8 μM against *Leishmania* (X12398543).

**GENIPAP (*Genipa americana* L.) ++**

**RUBIACEAE**



**Illustrations:**

fig 109 (DAV); p 451 (AHL)

**Synonyms:**

*Genipa americana* var. *caruto* (Kunth) Schumach.; *G. barbata* Presl; *G. caruto* Kunth; *G. excelsa*; *G. onlongifolia*; *G. pubescens* DC.; fide (EGG; JTR; MPG; USN).

**Common Names:**

Abugui (Cuna; Ma.; IED; JFM); Acuicho (Ese'eja; Huayraya; EGG; SOU); Acuicho Ana (Antis; EGG; RAR; SOU); Akui Sho (Ese'eja; EGG; MD2); Ana (Ashaninka; Matsigenka; Nomatsiguenga; EGG; MD2; RAR); Angelina (Col.; AVP); Arasaloe (Ma.; JFM); Arayol (Ma.; JFM); Bi (Bol.; Ma.; DLZ; JFM); Bicito (Bol.; AVP); Bihich (Bol.; Chiquitano; DLZ); Bilito (Peru; EGG); Bisito (Bol.; DLZ); Canuto (Sal.; MPG); Carcarutoto (Trin.; AVP);

Caruto (Ma.; Sp.; Ven.; JFM; JTR; USN); Caruto Rebalsero (Ma.; JFM); Chibará (Choco; IED); Chibusa No Ki (Japan; TAN); Chipará (Choco; IED); Confiture de Singe (Fr.; USN); Crayo (Guat.; AVP); Gêne Pas (Haiti; AVP); Genip (Eng.; USN); Genipa (Fr.; Peru; Sp.; RAR; USN); Genipabeiro (Brazil; AVP); Genipa de America (Ma.; JFM); Genipap (Bel.; Eng.; Ma.; AVP; JFM); Genipapo (Arg.; Brazil; AVP); Genipapo Comun (Brazil; AVP); Genipayer (Fr.; Haiti; AVP); Genipayer d'Amérique (Fwi.; JTR); Genip Carcarutoto (Trin.; AVP); Gigualti (Nic.; AVP); Granado (Ma.; JFM); Guai'il (Cr.; AVP); Guali (Ma.; JFM); Guanapay (Ma.; EGG; JFM); Guaricha (Ma.; JFM); Guayatil (Cr.; AVP); Guayatil Blanco (Ma.; Pan.; IED; JFM); Guayatil Colorado (Ma.; JFM); Hagua (Pr.; AVP); Huito (Peru; Sp.; AVP; DAV; USN); Huitoc (Sa.; SOU); Huito de Agua (Peru; EGG); Huitol (Peru; EGG); Huito Sua (Sa.; EGG; SOU); Huitu (Peru; RAR); Hultoc (Peru; AVP); Ibo Ink (Tobago; AVP); Irayol (Guat.; Ma.; Sp.; AVP; JFM; USN); Irayol de Loma (Guat.; AVP); Irayol de Montanya (Ma.; JFM); Irayol Jaagua (Ma.; JFM); Isso (Piro; EGG; SOU); Jago (Col.; AVP); Jagua (Col.; Cuba; Pan.; Pr.; AVP; JTR); Jagua Azul (Ma.; JFM); Jagua Blanca (Ma.; JFM); Jagua Camun (Cuba; RyM); Jagua Comun (Cuba; AVP); Jagua de Montanya (Mex.; AVP); Jagua Dulce (Ecu.; AVP); Jagua Negra (Ma.; JFM); Janipa (Cocama; Peru; EGG; RAR; SOU); Jave (Yagua; EGG; RAR); Jenipabo (Ma.; JFM); Jenipapa (Ma.; JFM); Jenipapo (Ma.; Par.; AVP; JFM); Jidoro (Huitoto; EGG; RAR); Jigua (Peru; EGG); Juaraavuru (Ocaina; Sa.; SOU); Juniper (Trin.; AVP); Juraavuro (Ocaina; EGG; RAR); Kuikuisho (Ese'aja; EGG; MD2); Kulupo (Ma.; JFM); Lana (Guy.; Peru; AVP; EGG; JFM); Launa (Sa.; RAR); Maluca (Mex.; AVP); Maluco (Ma.; Mex.; AVP; JFM); Mamuc (Ma.; JFM); Marmalade Box (Eng.; JFM; TAN); Nandé (Amahuaca; EGG; MD2); Nandi (Conibo; Shipibo; EGG; RAR); Ñandipa (Bol.; Chiriguano; DLZ); Nane (Cashibo; Shipibo/Conibo; MD2; RAR); Nanu (Amahuaca; RAR); Nso (Piro; Yine; EGG; MD2; RAR); Nyandipa (Ma.; JFM); Nyapinda (Arg.; AVP); `O (Amarakaeri; Huachipaeri; EGG; MD2; RAR); Ora (Culina; EGG; RAR); Palo Colorado (Sa.; EGG; SOU); Palo de Sangre (Peru; EGG); Piginio (Peru; EGG); Pigio (Peru; EGG); Quipará (Choco; Ma.; IED; JFM); Resotu Montagne (Dom.; AVP); Rose Marie (St. Lucia; AVP); Saptur (Cuna; Ma.; IED; JFM); Sawa (Sur.; AVP); Sua (Aguaruna; SOU); Tambor (Sal.; AVP); Tapaculo (Cr.; Nic.; AVP); Taparoepa (Sur.; AVP); Tapoeripa (Ma.; JFM); Taproepa (Sur.; AVP); Tapuriba (Sa.; EGG; RAR); Tapuripa (Ma.; JFM); Tapuseba (Sa.; EGG; RAR); Tatuaje (Ma.; JFM); Tinye Dientes (Sal.; AVP); Totumillo (Bol.; AVP; EGG); Tutumillo (Ma.; JFM); Uvito (Peru; EGG); Uvrita (Sa.; RAR); Vacu Huito (Ma.; JFM); Vito (Peru; AVP); Vitoc (Sa.; EGG; SOU); Vitu (Ma.; JFM); Witos (Sa.; EGG; RAR); Witu (Shuti; EGG); Xagua (Sa.; EGG; RAR); Xaguo (Sa.; EGG); Yaco Huito (Peru; AVP; EGG; RAR); Yacua (Ma.; JFM); Yagua (Sp.; AHL; USN); Yagua Yagua (Peru; Sp.; EGG; JFM); Yayu Huito (Sa.; EGG; SOU); Yigualti (Ma.; JFM); Zapote de Monte (Peru; EGG).

### Activities:

A-beta-Blocker (1; X11767124); Abortifacient (f; DAV; EGG); Algacide (1; MPB); Antiabortive (f; MD2); Antiaggregant (1; X11745015); Antialzheimeran (1; X11767124); Antiangiogenic (1; X16143311); Antiarthritic (1; X16075741); Anticlastogenic (1; FNF; X9025787); Antiedemic (f1; DAV; X16075741); Antihepatomic (1; X16143311); Antiinflammatory (f1; X11745015; X16143311); Antimutagenic (1; EMP6:235); Antioxidant (f; FNF); Antiplatelet (1; X11745015); Antiscorbutic (f; AHL); Antiseptic (f1; EGG; JFM); Antithrombic (1; X11745015); Anti-TNF-alpha (1; X16075741); Anti-Tumor-Promoter (1; JNP54:1677); Anxiolytic (1; X15985266); Aphrodisiac (f; AHL; EGG); Apoptotic (1; X16143311); Astringent (f; RAR); Bactericide (f1; IED; MPB; MPG); Cholagogue (f; AHL); Choleric (1; FNF); Cicatrizant (f; EGG; RAR); Collagenic (1; FNF; X10706411); Collyrium (f; JFM); Contraceptive (f; EGG; MD2); Depurative (f; AHL); Digestive (f; JFM); Diuretic (f; AHL); Emetic (f; AUS; MD2; SOU); Febrifuge (f; JFM); Fungicide (1; MPB); Glutathionigenic (1; X9463529); Hepatoprotective (1; ACM:221; FNF); IL2-Inhibitor (1; X16309325); Immunosuppressive (1; X16309325); Insectifuge (f;



AHL); Neuritogenic (1; X11767124); Neuroprotective (1; X11767124; X16394534); Orexigenic (f; JFM); Protisticide (1; MPB); Purgative (f; AHL; JTR; MD2); Stomachic (f; AHL; MPB; SOU); Tonic (f; AHL); Vulnerary (f; RAR).

### Indications:

Abortion (f; MD2); Alopecia (f; EGG; RAR); Alzheimer's (1; X11767124); Anemia (f; AHL); Anorexia (f; JFM); Anxiety (1; X15985266); Arthrosis (f1; EGG; X16075741); Asthma (f; EGG); Bacteria (f1; IED; MPB; MPG); Bleorrhagia (f; DAW); Bronchosis (f; DAV; EGG; MD2); Bruises (f; EGG; RAR); Cancer (1; DAV; EMP6:235; JNP54:1677); Caries (f; DAV); Childbirth (f; MPB); Colds (f; JFM; MD2); Dandruff (f; EGG); Dermatitis (f; EGG; SOU); Diarrhea (f; RAR); Dropsy (f; EGG; MPB); Dysentery (f; RAR); Edema (f1; DAV; X16075741); Enterosis (f; EGG); Fever (f; JFM); Fungus (f1; EGG; MPB); Gonorrhea (f; AHL); Grey Hair (f; SOU); Hepatoma (1; X16143311); Hepatosis (f1; ACM:221; DAV; EGG; FNF; MPB); Impotence (f; AHL; EGG); Infection (f1; EGG; JFM; MPB; MPG); Inflammation (f1; EGG; X11745015; X16143311); Ischemia (1; X16394534); Itch (f; EGG; RAR); Jaundice (f; DAV; EGG); Mucososis (f1; EGG; MPB); Mycosis (f; EGG; MD2); Nephrosis (f; AHL); Ophthalmia (f; JFM; MD2); Parasitic Catfish (f; SOU); Pharyngosis (f; JTR); Pulmonosis (f; DAV); Respirosis (f; DAV; EGG); Rheumatism (f1; EGG; RAR; X16075741); Rupture (f; MPB); Scurvy (f; JFM); Snake Bite (f; EGG); Sores (f; JTR); Splenosis (f; MPB); *Staphylococcus* (1; MPG); Swelling (f; DAV); Syphilis (f; JTR); Thrombosis (1; X11745015); Tumors (1; AHL; JNP54:1677); Uterosis (f; DAV); Vaginosis (f; DAV; EGG); VD (f; AHL; AUS; JTR); Wounds (f; EGG; RAR).

### Dosages:

FNFF = !! Facciola (1998) notes correctly that the fruits, like the Indian wild pear, medlar and sorb, are "edible only when soft and overripe." They are used in lemonade-like drinks, ice cream, jellies, liqueurs, preserves, soft drinks, or syrups, sometimes pickled with vinegar and onions (FAC). Cubans make a beverage "guacamote" from the fruit (SOU), and wine from the ripe fruit with pineapple and cashew apple (JTR). Peruvians make "huitochado," macerating ripe fruits in rum with honey (EGG).

- Bolivians use seed decoction as emetic, the leaf decoction as insect repellent (DLZ).
- Brazilians use root decoction as purgative and for gonorrhea, the bark for sores, constipation, diarrhea, and pharyngosis, the leaf decoction for diarrhea and syphilis, recommending fruits for anemia, asthma, dropsy, hepatosis, jaundice, and splenosis (JFM; MPB).
- Créoles prepare a cathartic and antidiarrheal decoction, the same decoction is used in poultice to treat ulcers (GMJ).
- Cubans use the fruit wine, with cashew apple and pineapple, for dysentery (JTR).
- Guatemalans dilute and use "azucar de caruto," a gum that exudes from the trunk, as an eyewash (JFM).
- Guatemalans take floral infusion as febrifuge and tonic (JFM).
- Haitians use for anemia, aphrodisia, blennorrhagia, diarrhea, gonorrhea, hepatoses, and tumors (DAW).
- Madre de Dios Peruvians use leaves as contraceptive, emetic, and purgative (MD2).
- Peruvian Achuales use green pericarp to extract decayed teeth, using fruit/seed decoction to wash female genital inflammations or reduce swelling of the respiratory mucous membranes (DAV).
- Peruvian Aguaruna take an enema of the fruit alone or with *Solanum siparunoides* as a permanent sterilant (EGG).
- Peruvians make "huitochado," macerating ripe fruits in rum with honey, for rheumatism (EGG).
- Peruvians use douches of green fruit decoction for vaginosis (EGG).

- Peruvians use fruit juice, tincture or decoction as antiabortive, antiseptic, digestive, diuretic, laxative, and tonic, for arthrosis, asthma, bronchosis, constipation, cough, enteritis, infection, jaundice, mycosis, rheumatism, and uterine cancer (DAV; EGG; MD2).
- Puerto Ricans take fermented fruit juice with aloe gel and rum for colds (JFM).
- Salvadorans take 3 cups leaf decoction daily for dysentery, the root decoction for gonorrhoea (JFM; MPG).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**QUICK STICK (*Gliricidia sepium* (Jacq.) Kunth ex Walp.) +  
FABACEAE**

**G**

**Synonyms:**

*Gliricidia maculata*; *Robinia sepium* Jacq.; fide (EGG; USN).

**Notes:**

Morton (1977, 1981) makes a comment I had overlooked, the plant (leaves, roots, and seeds) kills mice but not rats (JFM). Gupta (1995) straightens it out, I think, saying roots and seeds kill “ratones” (= rats) but not “ratas” (= mice), but quoting Morton (JFM). Ironically when I ask, in Latin America, one word I get for mouse is “ratoncita,” diminutive of rat or “ratón.” Morton (1977, 1981) wrongly (I think) uses ratón for mouse, ratan for rat. If right, we should change that widely used common name in Spanish from “mataratón.” Seeds or other plant parts ground up and mixed with cornmeal or cheese to poison mice, dogs, and other small mammals. Somewhere in my files I have a letter I cannot confirm suggesting that coumarins in the plant led to the development of D-Con. So far I don't find coumarin or dicumarol reported for *Gliricidia*. I think it may be one of those unfounded rumors. But interesting!

**Common Names:**

Aaron's Rod (Eng.; Ma.; JFM); Acacia (Cuba; JTR); Alegre Caminante (Sp.; AVP); Almacigo Extranjero (Dor.; AHL); Amor y Celos (Cuba; JTR); Baba (Pan.; IED); Bala (Cr.; Pan.; JTR); Bien Vestido (Cuba; JTR); Cacagua (Hon.; AVP); Cacaguance (Ma.; JFM); Cacahuananche (Nic.; Ocn.; Sp.; AH2; MPG); Cacahuanandre (Mex.; JTR); Cacahuanano (Mex.; JTR); Cacahuanantl (Mex.; MPG); Cacante (Pi.; JTR); Can Sim (Guat.; AVP); Cansina (Guat.; JTR); Chante (Ma.; JFM); Cocoite (Mex.; PCS); Cuchunic (Ma.; JFM); Cuytunic (Ma.; JFM); Desnudo Floricido (Cuba; JTR); Florezco (Cuba; JTR); Gliricidia (Peru; EGG); Growing Stake (Ma.; JFM); Grow Stick (Ma.; JFM); Hotz (Bel.; Maya; BNA); Iati (Ma.; JFM); Jelelte (Ma.; JFM); Kansim (Guat.; MPG); Kanté (Guat.; MPG); Lengua de Perico (Mex.; JTR); Lilas Étranger (Guad.; Haiti; Mart.; AVP); Live Fence Post (Eng.; AVP); Madera Negra (Cr.; Nic.; Pan.; JTR); Madre de Cacao (Guat.; Mex.; Nic.; Ocn.; Pan.; Pi.; Sp.; AH2; JTR); Madriago (Cuba; JTR); Madrial (Hon.; AVP); Madura (Ma.; JFM); Maranga (Ma.; JFM); Mata Ratón (Col.; Pan.; Ven.; JTR; MPG); Mata Sarna (Guat.; MPG); Mother of Cocoa (Eng.; AVP); Muis Doodmaken (Dwi.; JFM); Muite (Mex.; AVP); Nicaraguan Cocoa Shade (Eng.; Ocn.; Trin.; AH2; AVP); Palo de Corral (Ma.; JFM); Palo de Hierro (Sal.; AVP; MPG); Palo de Parque (Dor.; AHL); Palo Vivo (Ma.; JFM); Pea Tree (Vi.; AVP); Piñon Amoroso (Cuba; Dor.; AHL; JTR); Piñon Cubano (Dor.; AHL); Piñon de Cuba (Dor.; AHL; AVP); Piñon Florido (Cuba; JTR); Piñon Milagroso (Cuba; AVP); Piñon Violento (Ma.; JFM); Primavera (Ma.; JFM); Quick Stick (Eng.; Jam.; Scn.; AH2; IED); Raboratón (Ven.; MPG); Raton (Ma.; JFM); Ratonera (Ma.; JFM); Sacyab (Guat.; MPG); Sangre de Drago (Cr.; Pan.; AVP; JTR);

Sayab (Bel.; Maya; AAB); St. Vincent Plum (Jam.; AVP); Varita de San José (Dor.; AHL; AVP); Yaguaguit Haite (Ma.; JFM); Yaité (Guat.; AVP; MPG); Yerba di Tonka (Dwi.; AVP); Zacyab (Ma.; Maya; JFM).

### Activities:

Analgesic (f; JFM); Antiatherogenic (1; MPG); Antiedemic (f; JFM); Antihistaminic (f1; MPG); Antiinflammatory (f1; AAB; MPG); Antiseptic (f1; MPG); Antispasmodic (1; MPG); Collyrium (f; AAB); Diuretic (f; MPG); Expectorant (f; EB22:99); Febrifuge (f; DAW); Fungicide (1; MPG); Insecticide (f; AAB); Insectifuge (f1; DAW); Poison (f; DAW); Propecic (1; MPG); Rodenticide (f; AAB); Sedative (f; EB22:99); Suppurative (f; EB22:99).

### Indications:

Allergies (f1; MPG); Alopecia (f; IED; MPG); Atherosclerosis (1; MPG); Bites (f; MPG); Boils (f; AAB); Bruises (f; IED); Burns (f; DAW); Cardiopathy (1; MPG); Chickenpox (f; JFM); Childbirth (f; MPG); Colds (f; EB22:99; MPG); Coughs (f; EB22:278); Debility (f; EB22:99; IED); Dermatitis (f; AAB; JFM); Edema (f; JFM); Enterosis (f; MPG); Erysipelas (f; DAW); Fatigue (f; EB22:99); Fever (f; DAW; MPG); Fungus (1; MPG); Gangrene (f; DAW; MPG); Gastrosis (f; MPG); Gonorrhoea (f1; MPG); Headache (f; DAW; IED); Impetigo (f; MPG); Infection (f1; MPG); Inflammation (f1; AAB; MPG); Insomnia (f; EB22:99; JFM); Itch (f; DAW); Jaundice (f; JFM); Malaria (f; MPG); Mycosis (f; JFM); *Neisseria* (1; MPG); Nephrosis (f; JFM); Ophthalmia (f; AAB); Pain (f; JFM); Parotitis (f; MPG); Phlegm (f; MPG); Pulmonosis (f; MPG); Rashes (f; AAB); Sores (f; AAB; MPG); Spasms (1; MPG); Swelling (f; JFM); Tettors (f; MPG); Tumors (f; DAW); Typhoid (f; MPG); Typhus (f; MPG); VD (1; MPG); Wounds (f; AAB).

### Dosages:

NFFF = ! Fresh flowers eaten, often cooked with eggs (AAB).

- Arubans and Curasaons take leaf decoction for colds, sometimes with those of *Annona* and *Ocimum* (JFM).
- Belizeans make an eyewash for sore eyes, straining a decoction of ~ 3 × 1 inch bark sliver in 1 cup water 10 min (AAB).
- Belizeans poultice mashed leaves on boils, diaper rash, sores, and wounds (AAB).
- Guatemalans use for diarrhea, enterosis, gastrosis, impetigo, pulmonosis, stomachache, tetter, and typhoid (MPG).
- Jamaicans take leaf decoction for cold, fever, gonorrhoea, and pain (JFM).
- Mexicans put the leaves in the bath for malaria (JFM).
- Panamanians place a branch in the hat to relieve the heat (IED).
- Panamanians use leaves for fever, boiled with lemon leaves for headache, and in baths for debility (IED).
- Venezuelans use shoot decoction for chickenpox eruptions and prickly heat (JFM).
- Yucatanese believe the leaves antihistaminic, diuretic, febrifuge, and parturient (MPG).

### Downsides:

Noting the abortifacient, insecticidal, and rodenticidal activities, I cannot give it a clean bill of health. As of July 2007, the FDA Poisonous Plant Database listed 10 titles alluding to toxicity of this species.

### Extracts:

Ethanol water (1:1) extracts of shoots antiinflammatory in rats at 0.375 mg/kg (AAB). Leaf decoction active against *Microsporium* and *Trichophyton*. Hydroalcoholic leaf macerate active against *Neisseria gonorrhoea*; also antiatherogenic, but according to MPG not anabolic, andro-

genic, antiinflammatory, or diuretic (MPG). Toxic to such insects as *Culex*, *Diacrisis*, *Eliothis*, *Hydrellia*, *Nymphula*, and *Spodoptera* (MPG).

**CAMBARA (*Gochnatia polymorpha* (Less.) Cabrera) +**  
**ASTERACEAE**

**Synonyms:**

*Moquinia polymorpha* (Less.) DC.

**Common Names:**

Cambara (Par.; MPG); Cambará de Folha Grande (Brazil; MPB); Cambará do Mato (Brazil; MPB). (Nscn).

**Activities:**

Antiedemic (1; X11114003); Antiinflammatory (f1; MPB; MPG; X11114003); Emollient (f; MPG); Expectorant (f; MPG); Molluscacide (f; MPG); Neurogenic (1; X10443479); NGF-Potentiator (1; X10443479).

**Indications:**

Bronchosis (f; MPB); Edema (1; X11114003); Inflammation (f1; MPG; X11114003); Neurosis (1; X10443479); Pulmonosis (f; MPB); Swelling (1; X11114003).

**Dosages:**

FNFF = ?

- Brazilians take leaf decoction orally as antiinflammatory and for bronchoses and pulmonoses (MPB; MPG).
- Paraguayans take leaf decoction or tea as emollient and expectorant (MPG).

**Extracts:**

Malarial tests proved negative. At 100 ppm the ethanol extract was molluscacidal (MPG). Aqueous and ethanol leaf extracts show antiinflammatory activity (X11114003). Water fraction showed weak enhancement of NGF-mediated neurite outgrowth from PC12D cells (X10443479).

**GLOBE AMARANTH (*Gomphrena globosa* L.) ++**  
**AMARANTHACEAE**

**Illustrations:**

p 66 (DAA)

**Common Names:**

Amarantina (Sp.; USN); Amarantine (Fr.; USN); Amor Seco (Sp.; USN); Bachelor's Button (Eng.; USN); Boton (Ma.; JFM); Bunga Butan (Malaya; IHB); Bunga Tila Bulan (Malaya; IHB); Chacmol (Ma.; JFM); Common Globe-Amaranth (Eng.; USN); Don Diego Morado (Ma.; JFM); Eterna (Sp.; USN); Gian Ri Hong (Pin.; DAA); Globe-Amaranth (Eng.; USN); Habana (Dor.; AHL); Immortelle (Guad.; Ma.; JFM); Inmortal (Cr.; Ma.; AVP; JFM); Inmortales Blanco (Col.; AVP); Kugelamarant (Ger.; USN); Manto de Cristo (Peru; Sp.; LOR); Marguerite (Guad.; AVP); Perpetua (Ma.; JFM); Qian Ri Hong (China; USN); San Diego (Cuba; Ma.; AVP; JFM); Santoma (Dor.; AVP); Sennichi So (Japan; TAN); Siempre Viva (Cr.; Dor.; Pan.; Peru; Sp.; AVP; IED; LOR); Standvastig (Ma.; JFM); Suspiro (Ma.; Pan.; IED; JFM);

Suspiro Branco (Brazil; AVP); Suspiro Roxo (Brazil; AVP); Tmuul (Ma.; JFM); Wax Work (Jam.; AVP).

**Activities:**

Depurative (f; DAV); Diuretic (f; JFM); Expectorant (f; JFM); Hypotensive (f; DAV).

**Indications:**

Asthma (f; JFM); Bronchosis (f; JFM); Cardiopathy (f; DAV; IED); Catarrh (f; JFM); Coughs (f; DAV; WOI); Dermatosis (f; JFM); Diabetes (f; DAV); Dysentery (f; JFM); Dysmenorrhea (f; DAA); Dyspepsia (f; JFM); Dysuria (f; JFM); Epistaxis (f; DAV); Erysipelas (f; JFM); Fever (f; JFM); Gas (f; JFM); High Blood Pressure (f; DAV); Leukorrhea (f; DAA); Metrorrhagia (f; DAA); Oliguria (f; DAV); Respirosis (f; JFM).

**Dosages:**

FNFF = ! Cooked leaves eaten (TAN). Eaten as vegetable in Molucca (IHB; WOI). 2 tbsp sweetened floral decoction every 2 hr for asthma, cough, and dysentery (JFM)

- Brazilians take white floral decoction for bronchitis, cough, and respiratory disorders (JFM).
- Trinidadans take white floral decoction for gas, dyspepsia, and urinary burning (JFM).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**UPLAND COTTON (*Gossypium barbadense* L.) +  
MALVACEAE**



**Illustrations:**

fig 112 (DAV)

**Synonyms:**

*Gossypium evertum* O. F. Cook & J. Hubb.; *G. peruvianum* Cav.; *G. vitifolium* Lam.; fide (USN).

**Notes:**

Associated with the deity Oxalá in the Afro-Brazilian Candomblé religion (VOD quoting Voeks, 1997). Species not necessarily distinguishable, activities and indications often lumped. Common names also seemingly transferable in the genus (see, e.g., JFM). Unfortunately this one, probably the most important in Peru, does not have a standardized common name.

**Common Names:**

Algodao Crioulo (Brazil; Por.; AVP); Algodao da Costa (Brazil; Por.; AVP); Algodao das Barbados (Brazil; Por.; AVP); Algodoeiro-Americano (Por.; USN); Algodón (Bel.; Cuba; Peru; Sp.; BNA; EGG; LOR; MDD; USN); Algodoncillo (Peru; EGG; SOU); Algodonero (Cuba; Peru; Pr.; EGG; JTR); Algodonero de las Barbados (Sp.; USN); Amaniu (Cocama; EGG; SOU); American-Egyptian Cotton (Eng.; USN); American Pima Cotton (Eng.; USN); Aminiyu (Wayāpi; GMJ); Ampei (Peru; SOU); Ampí (Ashaninka; Campa; EGG; RAR); Anagnika (Sanskrit; EFS); Arattam (Tam.; KAB; SKJ); Baumwollenstrauch (Ger.; EFS); Baumwollpflanze (Ger.; AVP); Brazilian Cotton (Eng.; USN); Butonge (Congo; AVP); Bwanda (Congo; AVP); Canton (Pi.; KAB); Chemparutti (Mal.; KAB); Coton (Creole; Guy.; GMJ); Coton des Indes Occidentales (Fr.; USN); Cotone (It.; AVP); Cottonnier (Fwi.; Haiti; AVP; JTR); Cottonnier d'Égypte (Fr.; USN); Cotton (Eng.; DAV); Danda (Congo; AVP); Diamba (Congo; AVP); Dokona (Congo; AVP); Duloboro (Gambia; KAB); Egyptian Cotton (Eng.; USN); Ettappatti (Tel.; KAB); Fiaan (Ocaina; EGG; SOU); Gallini Cotton (Eng.; USN); Gehs (Amuesha; Yanessa; EGG; SOU); Gros Coton (Réunion; KAB); Gutuno (Congo; AVP); Hasina (Betsemisaraka; KAB); Huapge (Piro; EGG; SOU); Huashmen (Shipibo/Conibo; EGG); Huasmuén (Pano; EGG; SOU); Huasmui (Conibo; EGG; SOU); Huepe (Peru; EGG); Japó (Amahuaca; MD2); Kapas (Malaya; EFS); Karihatti (Kan.; KAB); Karpas (India; Sanskrit; EFS); Katoenstruik (Dutch; EFS); Katuna (Ma.; JFM); Kidney Cotton (Eng.; USN); Koton (Creole; Haiti; VOD); Kotonyé de Siam (Creole; Haiti; VOD); Kotonyé dèz End (Creole; Haiti; VOD); Kotonyé Mawon (Creole; Haiti; VOD); Kuchung (China; EFS); Kutahmen (Amara kaeri; Huachipaeri; MD2); Kuttun (Arab.; EFS); Landihazo (Betsemisaraka; KAB); Long-Staple Cotton (Eng.; USN); Maghani (Sanskrit; KAB); Maliyiyam (Tam.; KAB); Mandiyu (Chiriguano; DLZ); Mauwu (Palikur; GMJ); Mian Hua (Pin.; JAD); Mien hua (China; EFS); Mingarú (Peru; EGG); Miniyu (Wayāpi; GMJ); Noowah (Burma; KAB); Paidipatti (Tel.; KAB); Palo de Algodon (Ma.; JFM); Pambah (Iran; EFS); Pamidipatti (Tel.; KAB); Pamuk (Tur.; EFS); Papas (India; EFS); Parutti (Madras; KAB); Pernambuco (Pi.; KAB); Peruvian Cotton (Eng.; USN); Pima Cotton (Eng.; USN); Porashi (Candoshi; EGG; SOU); Purvam (Sanskrit; KAB); Qheya (Aym.; DLZ); Quiela (Peru; EGG; SOU); Rongokopa (Oriya; KAB); Sea Island Baumwolle (Ger.; USN); Sea Island Cotton (Eng.; CR2; USN; VOD); Sembanju (Tam.; KAB); Sembarutti (Tam.; KAB); Simaipparutti (Tam.; KAB); Taman (Ma.; JFM); Tanguis (Peru; EGG; RAR); Tree Cotton (Eng.; VOD); Ts'ao Mien (China; EFS); Tsiin (Ma.; JFM); Tu (Ticuna; EGG; SOU); Uchto (Peru; Que.; EGG; RAR); Ujunch (Aguaruna; EGG; SOU); Ujush (Aguaruna; EGG); Ukoko (Congo; AVP); Uruch (Hambisa; Peru; EGG; SOU); Urush (Huambisa; EGG; SOU); Utcju (Peru; Que.; EGG; RAR); Utcu (Peru; RAR); Utju (Que.; DLZ; EGG); Utku (Bol.; Que.; DLZ); Upland Cotton (Eng.; USN); Vilayatihatti (Kan.; KAB); Wagpu (Piro; Yine; MD2); Wapehe (Ese'ēja; MD2); Washmen (Shipibo/Conibo; MD2); Wasmune (Chacobo; DLZ); Wattenstruik (Ma.; JFM); Westindische Baumwolle (Ger.; USN); Xapo (Amahuaca; EGG; RAR); Xapu (Cashibo; RAR; SOU).

**Activities:**

Abortifacient (f1; CRC; EGG; FNF); Acaricide (f; EGG); Antiemetic (f; EGG); Antifertility (1; GMJ); Antiseptic (f; EGG); Aphrodisiac (f; EFS); Astringent (f; CRC); Cicatrizing (f; VOD); Climacteric (f; PH2); Contraceptive (1; CRC); Diuretic (f; CRC; EGG; RAR; VOD); Emmenagogue (f1; AHP; CRC; DLZ; JTR); Emollient (f; CRC; VOD); Febrifuge (f; VOD); Hemostat (f; CRC); Hypotensive (f1; X15025864); Lactagogue (f; CRC; VOD); Oxytocic (f1; CRC; DAV; FNF); Pectoral (f; CRC; KAB); Uterotonic (1; AHP); Vasoconstrictor (f; CRC); Vulnery (f; EGG; RAR).

**Indications:**

Abscesses (f; EGG; RAR); Ague (f; CRC); Amenorrhea (f1; CRC; DLZ; EGG); Asthma (f; CRC); Bleeding (f; CRC); Bronchosis (f; CRC; EGG; JTR); Callus (f; EGG); Cancer (1; CRC; FNF); Cancer, abdomen (f; JLH); Cancer, breast (f; JLH); Cancer, colon (f; JLH); Cancer, nose (f; JLH); Cancer, uterus (f; JLH); Cardiopathy (f; VOD); Childbirth (f; CRC; EGG; HHB; JTR; MD2; PH2); Cholera (f; DLZ); Colds (f; CRC; JFM); Colic (f; CRC; EGG); Convulsions (f; DLZ); Coughs (f; EGG; MD2); Cramps (f; JFM); Dermatitis (f; DAV; VOD); Diarrhea (f; CRC; DLZ; MD2); Dysentery (f; CRC; EGG; JFM; VOD); Dyslactea (f; JFM); Dysmenorrhea (f; CRC; DLZ; EGG); Dysuria (f; JFM); Earache (f; EGG; GMJ; JFM; MD2); Enterosis (f; JFM; JTR; VOD); Fever (f; CRC; JFM; VOD); Fibroids (1; CRC; FNF); Filaria (f; DAV; GMJ); Freckles (f; KAB; SKJ); Fungus (f; EGG; MD2); Ganglia (f; VOD); Gas (f; EGG; MD2; VOD); Gastrosis (f; VOD); Headache (f; CRC; EGG; VOD); Hematachezia (f; MD2); Hemorrhoids (f; CRC; EGG; JFM); Hepatosis (f; DAV; EGG); High Blood Pressure (f1; CRC; JFM; X15025864); Hypochondria (f; CRC); Impotence (f; EFS); Infection (f; DAV; EGG; MD2); Inflammation (f; CRC; JFM; VOD); Laryngitis (f; JFM); Leukemia (1; FNF; JLH); Lymph (1; CRC); Nausea (f; EGG); Neuralgia (f; SOU); Oliguria (f; JTR); Ophthalmia (f; VOD); Ovary (f; CRC); Pain (f; JFM; MD2; VOD); Parasites (f; DAV); Polyps (f; CRC; FNF; JLH); Proctosis (f; KAB); Pulmonosis (f; JFM; JLH; VOD); Rashes (f; DAV); Rheumatism (f; CRC; EGG; JFM); Rhinosis (f; JLH); Ringworm (f; MD2); Sterility (f; CRC); Stomachache (f; CRC; MD2; SOU; VOD); Strangury (f; CRC); Tachycardia (f; VOD); Tenesmus (f; KAB); Toothache (f; EGG); Tumors (1; CRC; FNF); Uterosis (f; CRC; DLZ; FNF); UTIs (f; JFM); Warts (f; EGG); Wounds (f; DAV; EGG; RAR; VOD).

**Dosages:**

FNFF = !! While you might not think of cotton as an edible oilseed, read the labels on your junk food (JAD). 100 g root in 1 liter water, reduced by boiling to 0.5 l; take 50 g liquid every ½ hr (dangerous formula for abortion (CRC)); 3 leaves in 1 liter water for high blood pressure (JFM); 6–8 g seed/150 g water or milk 3×/day as lactagogue (f; JFM).

- Bolivians take the leaf decoction for cholera, convulsions, and water retention (DLZ).
- Cubans take cotton as diuretic (JTR).
- Haitians inhale smoke from burning leaves for headache (VOD).
- Haitians place leaf juice in eye for eye problems, rubbing bruised leaves on dermatosis (VOD).
- Haitians use leaf decoction or sap for enterosis a/o gastralgia (VOD).
- Peruvians report applying cotton ashes to wounds as vulnerary (RAR).
- Peruvians report poulticing leaves onto hemorrhoids (RAR).
- Peruvians reportedly plaster seed on dental abscess (RAR).
- Peruvians suggest the cooked root or root decoction as diuretic (EGG; RAR).
- Peruvians suggest the leaf decoction or tea for colic, cough, dysentery, fever, gas, menstrual pain, and nausea (EGG).

- Yucatanese use cotton to treat bronchial, enteral, and pulmonary problems (JTR).

**Downsides:**

Class 2b; contraindicated in urogenital irritation or tendency to inflammation; may sterilize men (AHP). LD50 (gossypol) 10–20 mg/kg ipr rat. As of July 2007, the FDA Poisonous Plant Database listed 12 titles alluding to toxicity of this species.

**ANCHOVY PEAR (*Grias neuberthii* J. F. Macbr.) +  
LECYTHIDACEAE**



G

**Illustrations:**

fig 114 (DAV)

**Synonyms:**

*Grias lorentensis* R. Knuth; fide (USN).

**Notes:**

Peruvians use closely related *Grias peruviana*, also called “sacha mangua,” as well as “apái,” “mancoa,” and “sacha mango,” using seed juice as nose drops for nasal congestion, respirosis, and sinusosis (EGG).

**Common Names:**

Anchovy Pear (Eng.; DAV); Chope (Peru; RAR); Mango Sacha (Peru; RAR); Membrillo (Peru; RAR); Sacha Mango (Peru; RAR); Sacha Manguar (Peru; Sp.; DAV). (Nscn; American entries diacritically prepared).

**Activities:**

Emetic (f; SAR); Orexigenic (f; SAR).

**Indications:**

Anorexia (f; SAR); Childbirth (f; SAR); Dysentery (f; SAR); Malaria (f; SAR).

**Dosages:**

FNFF = ! Fruits roasted and eaten in Peru.

- Amazonians use seeds in enema for dysentery (SAR).
- Ecuadorians along Rio Chico use the cambium as an emetic in delivery, inappetence, and malaria (SAR).



- Siona grate the fruit into water as a purgative (SAR).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**GUAIACUM (*Guaiacum officinale* L.) +  
ZYGOPHYLLACEAE**

**Illustrations:**

p 485 (TTS); p 213 (L&W); p 415 (AHL)

**Notes:**

Steinmetz (EFS), like McGuffin et al. (2000), aggregates the common names of *Guaiacum officinale* and *G. sanctum*, and many of the names below could also apply to *G. sanctum*. *G. officinale* is described as having 4(–6) leaflets, with flat fruits, heart shaped at the apex; *G. sanctum* with 6–10 leaflets, fruits 4–5-angled or winged, pointed at the apex (L&W). Trying to avoid conflict with McGuffin et al. (2000), I refer those names and indications easily assignable to *G. sanctum* under “holy guaiacum.”

**Common Names:**

Arbre de Vie (Fr.; Haiti; AHL; AVP); Bakaut (Rus.; AVP); Bois de Gaoac (Fr.; TTS); Bois de Vie (Fr.; USN); Bois Saint (Fr.; Guad.; AHL; AVP); Coeja (Egypt; AVP); Common Lignum Vitae (Eng.; TTS); Drzewo Gwajakowe (Pol.; AVP); Franzestrec (Den.; AVP); Franzosenholz (Swe.; AVP); Gaiac (Fr.; AHL); Gaiac Batarde (Fr.; AHL); Gaiac Franc (Fr.; AHL); Gaiac Mâle (Fr.; AVP; TTS); Gaiac Officinel (Fr.; AHL); Gayac (Creole; Haiti; VOD); Gayac Jaune Vert (Fr.; Guad.; AHL; AVP); Guaiac (Eng.; Ocn.; AH2; CR2); Guaiacholz (Ger.; AVP); Guaiaco (It.; AVP); Guaiacum (Eng.; Scn.; AH2); Guaiacum Wood (Jam.; AVP); Guajacan Negro (Sp.; FAC); Guayacàn (Dor.; Cuba; Mex.; Ven.; AHL; AVP); Guayacàn Colombiana (Sp.; AVP); Guayacàn de Playa (Sp.; AVP); Guayacàn Negro (Sp.; AHL); Guayaco (Dor.; Pr.; AVP); Gujakbaum (Ger.; USN); Gwasakowa (Pol.; AVP); Khashab al Ambia (Arab.; AVP); Khashabel Quadissin (Arab.; AVP); Legno Benedeto (It.; AVP); Legno Santo (It.; AVP); Lignum Sanctum (Eng.; FAC); Lignum-Sanctum-Holz (Ger.; AVP); Lignum Vitae (Eng.; Ocn.; Vi.; AH2; AVP); Palo de la Vida (Sp.; AVP); Palo Sano (Sp.; Ven.; AVP); Palo Santo (Cuba; Sp.; AVP; USN); Pau Santo (Por.; AVP); Peïgamber Agha Aghadji (Tur.; AVP); Pockholz (Ger.; USN); Pockwood (Jam.; AVP); Pokhout (Dutch; AVP); Pyé Gayac (Creole; VOD); Tree of Life (Eng.; VOD); Wayacá (Dutch; AVP).

**Activities:**

Abortifacient (f; JFM); Analgesic (f; AHL); Antiedemic (f1; CAN; JPP46:286; PNC); Antiinflammatory (f1; CAN; JPP46:286; PNC); Antioxidant (f; JFM); Antirheumatic (f12; AHL; CAN; KOM; PH2; PNC; VOD); Antiseptic (1; PR14:303); Antitubercular (1; PR14:303); Bactericide (1; PR14:303); Carminative (f; DAW); Cercaricide (1; X7997754); Deobstruent (f; DAW); Depurative (f; VOD); Diaphoretic (f; CAN; PNC); Diuretic (f; CAN; MAD; PNC); Emmenagogue (f; JFM); Fungicide (1; PHR); Hypoglycemic (1; JFM); Laxative (f; CAN; HHB); Molluscicide (1; X7997754); Mycobactericide (1; PR14:303); Nephrotogenic (1; JFM); Orexigenic (f; EFS); Piscicide (1; X7997754); Poison (f; DAW); Purgative (f; DAW); Stimulant (f; AHL); Sudorific (f; JFM).

**Indications:**

Adenopathy (f; MAD); Amenorrhea (f; JFM); Angina (f; HHB); Anorexia (f; EFS); Arteriosclerosis (f; VOD); Arthrosis (f; CAN); Asthma (f; AHL; JFM); Bacteria (1; PR14:303); Cachexia (f; MAD); Cancer (f; JLH); Cancer, cervix (f; JLH); Catarrh (f; AHL; MAD); Cervicosis (f; JLH); Chills (f; VOD); Constipation (f; CAN; DAW; HHB); Cystosis (f; MAD); Dermatoses (f; AHL; JFM; PHR; PH2; VOD); Diabetes (f1; DAW; JFM); Dropsy (f; MAD); Dysmenorrhea (f; MAD); Edema (f1; CAN; JPP46:286; PNC); Exanthem (f; MAD); Flu (f; VOD); Fracture (f; MAD); Fungus (1; PHR); Gas (f; DAW); Gingivitis (f; AHL); Gonorrhoea (f; MAD); Gout (f1; AHL; CAN; HHB; PNC; VOD); Headache (f; VOD); Hepatosis (f; MAD); High Blood Pressure (f; JFM; VOD); Infection (1; PHR; PR14:303); Inflammation (f1; CAN; JPP46:286; PNC); Itch (f; MAD); Lumbago (f; MAD); Ophthalmia (f; JFM); Pain (f; AHL; JFM; PNC); Pharyngitis (f; EFS; MAD); Pleurosis (f; MAD); Psoriasis (f; MAD); Respirosis (f; PHR; PH2); Rheumatism (f12; AHL; CAN; JFM; KOM; PH2; PNC; VOD); Scabies (f; MAD); Scrofula (f; AHL; MAD); Splenosis (f; MAD); Stiffness (f; JFM); Syphilis (f; AHD; MAD; PHR; PH2); Tonsillitis (f; EFS; HHB); Toothache (f; AHL; VOD); Tuberculosis (1; MAD; PR14:303); VD (f; AHL).

**Dosages:**

FNFF = ! Not really a food, though resin is locally used to flavor cakes and chicle, and added to prevent oils from acidification (FAC). 1–2 g wood in tea 3×/day (CAN); 6–9 tsp (28–40 g) wood in tea (MAD); 4.5 g wood/day (KOM); 1.5 g wood/cold water, up to 5 g/day (PHR); 0.3–2 g (HHB); 2–4 ml tincture (CAN; PNC); 1–2 ml liquid extract (1:1 in 80% ethanol) 3×/day (CAN).

- Barbadians poultice the leaves onto rheumatic swellings (JFM).
- Brazilians infuse 3 g grated wood in 200 g water, taking 2–3×/day as emmenagogue (JFM).
- Cubans used inner bark tincture as liniment for rheumatic pain (JFM).
- Curaçaoans take the leaf decoction for asthma, diabetes, high blood pressure, and rheumatism (JFM).
- Dominicans mix sawdust with alcohol for rheumatism (AHL).
- Haitians apply the resin to toothache (AHL; VOD).
- Puerto Ricans mix the wood with *Petiveria alliacea* as an abortifacient (JFM).

**Downsides:**

Not covered (AHP). “Health risks or side effects following the proper administration of designated therapeutic dosages are not recorded” (PH2). None known (KOM). Newall, Anderson, and Phillipson (1996) caution that the lignans are allergenic and may cause dermatosis. Recommended that people with allergy, hypersensitive, or acute inflammatory conditions avoid it. High doses may cause colic, diarrhea, and other GI complaints (PHR). Use when pregnant or lactating should be avoided (CAN). Overdose of leaf decoction is nephrotogenic (JFM).

As of July 2007, the FDA Poisonous Plant Database listed 12 titles alluding to toxicity of this species.

**Extracts:**

Resin LD50 = >5,000 mg/kg orl rat.

**HOLY GUAIAECUM (*Guaiacum sanctum* L.) +  
ZYGOPHYLLACEAE**

**Illustrations:**

p 488 (TTS); p 215 (L&W)

**Synonyms:**

*Guaiacum guatemalense* Planch. ex Rydb.; fide (USN).

**Notes:**

Steinmetz (EFS), like McGuffin et al. (2000), aggregates the common names of *Guaiacum officinale* and *G. sanctum*, and many of the names below could also apply to *G. officinale*. Liogier (1974) says that both species have the same medicinal properties so a generic approach might be in order, at least for these two species. *G. officinale* is described as having 4 (–6) leaflets, with flat fruits, heart shaped at the apex. *G. sanctum* with 6–10 leaflets, fruits 4–5-angled or winged, pointed at the apex (L&W). Trying to avoid conflict with McGuffin et al. (2000), I refer those names and indications easily assignable to *G. sanctum* under “holy guaiacum.”

**Common Names:**

Bahama Lignum Vitae (Eng.; AVP); Bastard Lignum Vitae (Eng.; AVP); Beera (Dwi.; L&W); Bera (Dor.; Ma.; AVP; JFM); Boeloebarie (Dwi.; L&W); Bois Saint (Haiti; AVP; JFM; L&W); Bulabari (Ma.; JFM); Cen (Ma.; JFM); False Guaiac (Eng.; AUS); Gaïac Bâtard (Haiti; AHL; AUS; AVP); Gaïac Blanc (Haiti; Ma.; AVP; JFM; L&W); Gaïac Cardasse (Haiti; AHL); Gaïac Femelle (Haiti; AVP; L&W); Guaiac (Eng.; Ocn.; AH2); Guaiaco Bianco (It.; AVP); Guaiacum (Eng.; Scn.; AH2; USN); Guayacabillo (Ma.; JFM); Guayacán (Col.; Guat.; Mex.; Nic.; Ven.; AVP; L&W); Guayacán Bastardo (Dor.; AHL; AUS; AVP; L&W); Guayacán Blanco (Cuba; AVP; L&W); Guayacancillo (Cuba; Dor.; Pr.; AHL; AVP; L&W); Guayacán de Vera (Pr.; AVP; L&W); Guayacán Real (Sp.; TTS); Holywood (Eng.; USN); Holywood Lignum Vitae (Eng.; L&W); Huaxaxán (Mex.; AVP); Ironwood (Fla.; AVP); Lignum Vitae (Eng.; Ocn.; AH2; L&W; USN); Lingy Whity (Vi.; AUS); Lingy Vitey (Vi.; AUS); Matlacuáhuatl (Mex.; AVP); Niglum Witey (Vi.; AUS); Palo Santo (Mex.; Pr.; AUS; L&W); Pao Santo (Por.; JFM); Pockwood Tree (Eng.; AUS); Pyé Gayac (Haiti; AUS); Roughbark Lignum Vitae (Eng.; L&W); Son (Mex.; AVP); Soon (Mex.; AVP); Tree of Life (Eng.; Haiti; AUS); Vara Amarilla (Cuba; AVP); Vera (Cuba; Dor.; AUS; L&W; RyM); Wajaka (Curacao; AUS); Wayakaa Maatsjoe (Dwi.; L&W); Wayaka Shimarón (Dwi.; L&W); Zon (Mex.; AVP).

**Activities:**

Alterative (f; AUS; DAW); Analgesic (f; JFM); Antidote (f; JFM); Aperitive (f; EB29:317); Aphrodisiac (f; EB29:317); Dentifrice (f; JFM); Depurative (f; JFM); Diaphoretic (f; AUS); Diuretic (f; UPH); Febrifuge (f; JFM); Laxative (f; DAW; JFM); Molluscicide (1; AUS); Oregenic (f; JFM); Piscicide (1; AUS); Purgative (f; AUS); Stimulant (f; AUS); Sudorific (f; AUS; JFM).

**Indications:**

Adenopathy (f; JFM); Anorexia (f; EB29:317); Asthma (f; AUS); Back (f; EB29:317); Boils (f; JFM); Cancer (f; JLH); Cancer, breast (f; JLH); Chills (f; AUS); Constipation

(f; DAW; JFM); Coughs (f; JFM); Dermatitis (f; AUS; DAW); Fever (f; JFM); Flu (f; AUS); Gastrosis (f; DAW); Gingivitis (f; AUS); Gonorrhea (f; JFM); Gout (f; AUS; JFM); High Blood Pressure (f; AUS); Impotence (f; EB29:317); Mastitis (f; JLH); Pain (f; AUS; JFM); Pulmonitis (f; AUS); Rheumatism (f; AUS; DAW); Scrofula (f; AUS); Splenitis (f; DAW); Sprains (f; EB29:317); Syphilis (f; AUS; JFM); Toothache (f; AUS); Tuberculosis (f; JFM); VD (f; AHL; AUS).

#### Dosages:

FNFF = ? 50 g wood/l water boiled 20 min, drinking up to 6 small cups/day (MAX).

- Bahamans apply the hot bark decoction as analgesic in rheumatism (JFM).
- Bahamans take bark or flower decoction as laxative (JFM).
- Bahamans use leaf decoction as antidote and depurative (JFM).
- Caicos Islanders take the wood with root of *Chiococca* for gonorrhea (JFM).
- Haitians dissolve 57 g resin in 1,500 g rectified alcohol as dentifrice and for gout (JFM).
- Sonorans and Yucatanese use sweetened flower decoction for cough and tuberculosis (JFM; MAX).
- Yucatan Indians take wood extract for syphilis (JFM).

#### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

## COCILLANA (*Guarea guidonia* (L.) Sleumer) +

### MELIACEAE

#### Synonyms:

*Guarea guara* (Jacq.) P. Wilson; *G. rusbyi* (Britton) Rusby; *G. trichilioides* L.; *Sycocarpus rusbyi* Britton; fide (USN).

#### Common Names:

Bois Balé (Fr.; Fr. Guiana; USN); Cocillana (as *G. rusbyi*; USN); Guaraguao (Eng.; USN); Muskwood (Eng.; USN); Requia (Peru; Sp.; USN).

#### Activities:

Antimalarial (1; X11694364); Emetic (1; HHB; PH2); Emmenagogue (1; HHB; HH2; PH2); Expectorant (1; HHB; HH2); Insecticide (1; X17352079); Laxative (1; PH2); Leishmanicide (1; X11694364); Stimulant (f; PH2); Trypanocide (1; X11694364).

#### Indications:

Amenorrhea (f; HHB; HH2; PH2); Bronchitis (f; PH2); Constipation (1; PH2); Coughs (f; PH2); *Leishmania* (1; X11694364); Malaria (1; X11694364); Respiritis (f; PH2); Trypanosomiasis (1; X11694364).

#### Dosages:

FNFF = ? 0.5–1 g bark 3×/day (HHB; HH2); 1.3–3 g for amenorrhea (HH2).

#### Downsides:

Not covered (AHP). “No health hazards are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). Large doses cause diarrhea, fatigue, and nausea (HHB; PH2). As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.

**Extracts:**

Extract shows good leishmanicidal and trypanocidal activity *in vitro* (X11694364).

**BASTARD CEDAR (*Guazuma ulmifolia* Lam.) ++****STERCULIACEAE****Illustrations:**

fig 155 (IED); p 545 (MPG)

**Synonyms:**

*Guazuma polyborta* Cav.; *Theobroma tomentosa* Lam.

**Notes:**

Tramil (TRA), perhaps echoed by Gupta (1995), says that the uses for *Guazuma tomentosa* and *G. ulmifolia* are equal. CSIR (1948–1976) aggregates the two.

**Common Names:**

Acashti (Ma.; JFM); Ajilla (Ma.; JFM); Ajya (Ma.; JFM); Aquich (Ma.; JFM); Aquiche (Mex.; AVP; JFM; RAI); Ata Brava (Por.; AVP); Atadijo (Peru; EGG); Bastard Cedar (Bel.; Eng.; Jam.; Scn.; AH2; CR2); Bay Cedar (Bel.; Eng.; AAB AVP; VOD); Bois de Hêtre (Fr.; AVP; RAI); Bois d'Homme (Haiti; AHL); Bois d'Orme (Haiti; AVP); Bois Puant (Mart.; AVP); Bolaina (Ma.; Peru; JFM; RAR); Bolaina Moena (Peru; RAR); Bolaina Negro (Peru; EGG); Bucha (Kan.; WOI); Bulines (Ma.; JFM); Buxuma (Por.; AVP); Bwa Dom (Creole; Haiti; VOD); Cabalpixoy (Ma.; JFM); Cabeza de Negrito (Pan.; IED); Cablote (Ma.; JFM); Camacã (Brazil; MPB); Camacan (Brazil; RAR); Cambá Acá (Arg.; AVP; RAI); Caulote (Guat.; Hon.; AVP; MPG); Cèdre (Fr. Guy.; AVP); Cerezo (Peru; EGG); Chicharrón (Sal.; AVP; JFM); Coco (Bol.; Ma.; AVP; DLZ; JFM); Cocos (Bol.; DLZ); Contamal (Guat.; AVP; JFM); Cuahulote (Ma.; JFM); Cuaulote (Ma.; JFM); Debodaru (Oriya; WOI); Diankra (Cr.; AVP); Embira (Brazil; MPB; RAI); Embiru (Brazil; MPB); Goeaazoema (Dwi.; AVP); Guacimillo (Nic.; AVP); Guácimo (Col.; Pan.; Peru; IED; RAR); Guácimo Baba (Cuba; AVP); Guácimo Blanco (Cr.; Ven.; AVP); Guácimo Boba (Ma.; JFM); Guácimo Cimarrona (Dor.; AVP); Guácimo Colorado (Col.; AVP); Guácimo de Caballo (Cuba; AVP); Guácimo de Norte (Pr.; AVP); Guácimo de Ternero (Pan.; TBC); Guácimo Dulce (Ven.; AVP); Guácimo Macho (Ma.; JFM); Guasima de Caballo (Sa.; RAI); Guázuma (Por.; AVP); Hapayillo (Peru; EGG; RAR); Hêtre (Fr.; Guad.; Mart.;

AVP); Hêtre Gros (Fr.; JFM); Huashimo (Peru; RAR); Huasim (Ma.; JFM); Huásimo (Peru; EGG; RAR); Ibixuma (Brazil; JFM; RAI; RAR); Iumanasi (Peru; JFM; RAR); Jackocalalu (St. Thomas; AVP; JFM); Kapab Pixoy (Ma.; JFM); Lluicho Vainilla (Peru; EGG; JFM; RAR); Mahagua de Toro (Mex.; JFM); Mahahua de Toro (Mex.; AVP); Mahot Baba (Fr. Guy.; AVP); Mahot Hêtre (Ma.; JFM); Marmelero (Ma.; JFM); Matamba (Por.; AVP); Mata Tamba (Por.; AVP); Moena (Peru; RAR); Motamba (Ma.; JFM); Mutamba (Brazil; MPB; RAI; RAR); Mutombo (Ma.; JFM); Nipaltunth (Ben.; WOI); Nocuanoyana (Ma.; JFM); Orme d'Amérique (Fr.; AVP); Palote Negro (Ma.; JFM); Papayillo (Peru; EGG; RAR); Parandesicua (Ma.; JFM); Pau de Mutamba (Brazil; MPB); Pigeon Wood (Tobago; AVP); Pixoy (Bel.; Maya; Mex.; AAB; AVP); Poyo (Ma.; JFM); Rudraksha (Ben.; WOI); Rudraksham (Mal.; WOI); Rudrakshi (Kan.; WOI); Rudrasam (Tam.; WOI); Scrúru (Cr.; AVP); Sungi (Cr.; AVP); Tablote (Ma.; JFM); Tapaculo (Guat.; Sal.; AVP); Tenbachai (Tam.; WOI); Thene Chettu (Tel.; WOI); Tubakki (Tam.; WOI); Tzuni (Ma.; JFM); Tzuyui (Ma.; JFM); Udrikpatta (Tel.; WOI); Uiguie (Ma.; JFM); Uttharasham (Mal.; WOI); Vacima (Ma.; JFM); Vaqui (Amahuaca; EGG; RAR); West Indian Elm (Eng.; Ocn.; AH2; FAC); Wonan (Br. Guy.; AVP); Xuyuy (Ma.; JFM); Ya Ana (Ma.; JFM); Yaco de Venado (Ma.; JFM); Yaco Granadillo (Ma.; JFM); Yumanasi (Peru; EGG; RAR); Zam Mi (Ma.; JFM). (American entries diacritically prepared).

### Activities:

Analeptic (1; TRA); Anaphrodisiac (f; VOD); Angiotensin Inhibitor (1; RAI); Antidote (comocladia) (f; AHL; JFM); Antiherpetic (1; TRA); Antiinflammatory (f; RAI); Antimelanomic (1; RAI); Antioxidant (1; RAI); Antiprostaglandin (1; TRA); Antiradicular (1; RAI); Antiseptic (1; TRA); Antitumor (f1; RAI); Antitussive (f; RAI; VOD); Antiulcer (f; RAI); Antiviral (1; RAI; TRA); Astringent (f1; AAB; AHL; JFM); Bactericide (1; AAB; RAI; TRA); Bronchodilator (1; TRA); Cardioprotective (f; RAI); CNS-Stimulant (1; TRA); Cytotoxic (1; MPG; TRA); Depurative (f; JFM; RAI; RAR; VOD); Diaphoretic (f; AHL; JFM; RAI); Digestive (f; RAI); Diuretic (1; JFM; TRA); Emollient (f; DAV; RAR); Febrifuge (f; RAI); Fungicide (1; RAI); Hemostat (f1; DAV; RAI); Hepatoprotective (f; RAI); Hypoglycemic (1; RAI); Hypotensive (1; RAI); Myorelaxant (1; RAI); Nephroprotective (1; RAI); Orexigenic (f; JFM); Parasiticide (f; MPB); Pectoral (f; DAV; WOI); Respirostimulant (1; TRA); Stomachic (f; JFM; VOD); Sudorific (f; DAV; IED; JFM); Tonic (f; VOD); Uterotonic (1; AAB; MPG; RAI); Vulnery (f1; RAI; VOD).

### Indications:

Alopecia (f1; DLZ; JFM; RAI); Anorexia (f; JFM); Asthma (f; JFM; RAI); *Bacillus* (1; MPG; RAI); Bacteria (1; AAB; MPG; RAI; TRA); Bleeding (f1; DAV; DLZ; IED; RAI); Bleennorrhagia (f; DLZ); Bronchosis (f1; JFM; RAI; RAR; WOI); Burns (f; VOD); Cancer (f1; AAB; RAI); Childbirth (f1; AAB; MPG; RAI); Cholera (1; RAI); Colds (f; JFM; VOD); Coughs (f; JFM; RAI; VOD); Dermatoses (f; AAB; JFM; MPB; RAI; VOD); Diabetes (f1; RAI); Diarrhea (f1; AAB; RAI; VOD); Dislocation (f; JFM; VOD); Dysentery (f; AAB; JFM; VOD); Dysmenorrhea (f; DLZ); Dyspepsia (f; VOD); Elephantiasis (f; IED; JFM; MPB; RAI; VOD); Enterosis (f; VOD); *Escherichia* (1; AAB; RAI); Fever (f; RAI; RAR); Fibroma (f; RAI); Flu (f; TRA; VOD); Fracture (f; VOD); Fungus (1; RAI); Gastrosis (f; RAI; WOI); Gonorrhoea (f1; JFM; RAI); Headache (f; VOD); Hematuria (f; DLZ); Hemorrhoids (f; JFM; VOD); Hepatosis (f; IED; JFM); Herpes (1; RAI; TRA); High Blood Pressure (f1; RAI; VOD); Infection (f1; AAB; MPG; RAI; TRA); Infertility (f; RAI); Inflammation (f; RAI); Leprosy (f; DAV; RAI); Malaria (f; JFM; RAI); Melanoma (1; RAI); Mycosis (1; RAI); *Neisseria* (1; RAI); Nephrosis (f; IED; JFM; RAI); Obesity (f; WOI); Pain (f; RAI); Parasites (f; JFM; MPB); Pneumonia (f1; JFM; RAI); Proctosis (f; JFM); Prostatosis (f; AAB); Pulmonosis (f; AHL; DAV; IED); Rashes (f; AAB; VOD); Respirosis (f1; RAI; RAR); *Shigella* (1; MPG; TRA); Sores (f; AAB; JFM);

VOD); Sore Throat (f; JFM); *Staphylococcus* (1; MPG; TRA); *Streptococcus* (1; RAI); Sunstroke (f; JFM); Syphilis (f1; JFM; RAI; RAR); Ulcers (f; RAI); Uterosis (f; RAI); VD (f1; JFM; RAI); Viruses (1; RAI; TRA); Wounds (f1; RAI; VOD).

### Dosages:

FNFF = !! Green fruits eaten raw, cooked, or crushed in water to make a mucilaginous beverage; potable sap used to clarify sugar (FAC; IED). 1 cup bark tea 1–3×/day (RAI); 2–3 ml bark tincture 2×/day (RAI); 2 g bark capsule/tablet 2×/day (RAI).

- Belizeans use bark decoction (handful chopped bark in 3 cups water 10 min, drinking 1 cup before each meal) for childbirth, dermatosis, diarrhea, dysentery, infection, prostatitis, rashes, sores, and uterosis (AAB; JFM; RAI).
- Bolivians take bark or leaf decoction for alopecia, blennorrhagia, dysentery, hematuria, and nephrosis (DLZ).
- Brazilians use for alopecia, asthma, bronchitis, cough, dysentery, fever, gonorrhea, hepatitis, parasites, pneumonia, and syphilis (JFM; RAI).
- Colombians take as uterotonic; the bark syrup is used for dermatosis, elephantiasis, and sunstroke (JFM; RAI).
- Cubans take as depurative and antidote (comocladia), for bruises, burns, colds, flu, hemorrhoids, oliguria, and wounds (RAI).
- Darien natives soak bark with *Malva* for hepatitis and nephrosis (IED).
- Guatemalans a/o Yucatanese use for bruises, colds, dermatosis, erysipelas, fever, gastritis, gonorrhea, nephrosis, and stomachache (JFM; RAI).
- Haitians poultice macerated bark on broken bones and sores (VOD).
- Haitians use bark, leaf, or seed decoction as antitussive, for bad blood, colds, flu, and high blood pressure (VOD).
- Haitians use green bark in cool infusion to cool the passions (VOD).
- Haitians use inner bark decoction in enema for dysentery and hemorrhoids (VOD).
- Haitians use leaf in orange juice to treat headache (VOD).
- Haitians use seed decoction in sitz bath for hemorrhoids (VOD).
- Jamaicans use for cuts, diarrhea, elephantiasis, leprosy, malaria, and sores (JFM).
- Javans use the astringent roasted seed for stomach problems (WOI).
- Mauritians use the fruit as a pectoral in bronchitis (WOI).
- Mexican Mixe Indians use dry fruit or bark decoction for bleeding, diarrhea, and uterine pain (RAI).
- Pearl Islanders believe that merely touching the tree will staunch bleeding (IED).
- Peruvians use for alopecia, asthma, bronchitis, dermatosis, diarrhea, dysentery, elephantiasis, fever, hepatitis, leprosy, nephrosis, malaria, pulmonosis, and syphilis (EGG; RAI).
- Salvadorans soak 30 g bark in 1 liter for malaria and syphilis (JFM).
- Venezuelans take bark, flower a/o fruit as depurative, diuretic, refrigerant, and sudorific (JFM).
- West Indians use inner bark or old bark infusion for dermatosis, elephantiasis, and pulmonosis (WOI).

### Downsides:

Ingestion of large amounts may provoke diarrhea, nausea, and vomiting (MPG). Contraindicated in pregnancy; heart patients, especially hypotensive, should consult a physician before taking (RAI). As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**Extracts:**

Leaves contain 21,700 ppm caffeine (TRA). Nontoxic LD50 = >25,000 mg/kg orl rat; LD50 = 5,975 mg/kg ipr rat.

**SACHA CHOPÉ (*Gustavia augusta* L.) +  
LECYTHIDACEAE**

**Synonyms:**

*Gustavia mexicana*; *Japrandiba augusta* (L.) Kuntze; fide (EGG; USN).

**Notes:**

Cultivated occasionally in Peru (EGG).

**Common Names:**

A'iwalapi (Guy.; Wayãpi; GMJ); Bois Pian (Creole; GMJ); Chopé (Peru; EGG); Jeniparana (Por.; GMJ); Jihuin Huaran (Shipibo/Conibo; EGG); Mangua (Peru; EGG); Mucurão (Por.; GMJ); Sacha Chopé (Peru; EGG); Sachamanga (Bol.; Chiriguano; DLZ); Sacha Mango (Peru; EGG); Wakukwa Adawa (Palikur; GMJ); Yonichaino (Bol.; Chiquitano; DLZ). (Nscn).

**Activities:**

Emetic (f; EGG); Hepatic (f; EGG); Piscicide (f; EGG); Purgative (f; EGG).

**Indications:**

Constipation (f; EGG); Hepatosis (f; EGG); *Leishmania* (f; GMJ); Vomiting (f; GMJ).

**Dosages:**

FNFF = ! Mature fruits eaten (EGG).

- Bolivians use the root tea for liver problems (DLZ).
- Guyanans use the wood or leaves with clay and water for nausea or vomiting in children (GMJ).
- Palikur use the fruit, bark, or young leaves in poultices for leishmaniasis (GMJ).
- Peruvians use grated seed in water as purgative (EGG).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.





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# H

## LOGWOOD (*Haematoxylum campechianum* L.) + CAESALPINIACEAE

### Illustrations:

p 499 (TTS)

### Notes:

Due to unique properties, iron hematoxylin has been used for staining intestinal protozoa (X12751322). It is astringent and useful in diarrhea and dysentery. I was embarrassed to see that in my first drafts I did not consult my ethnobotanical database (<http://www.ars-grin.gov/cgi-bin/duke/ethnobot>), wherein I re-encountered activities and indications entered close to 25 years ago (all DAW entries below).

### Common Names:

Blackwood (Eng.; JFM); Blandkholz (Ger.; AVP); Blauholz (Ger.; AVP; EFS); Blauwhaut (Dutch; AVP; EFS); Bloedhautboom (Dutch; EFS); Bloodwood Tree (Eng.; VOD); Bois Bleu (Fr.; AVP); Bois Campêche (Fr.; Guad.; Haiti; AVP; TTS); Bois de Jamaïque (Fr.; AVP); Bois Rouge (Fr.; JFM); Brasil (Mex.; AVP); Brasilete (Ven.; AVP); Bwa Kanpèch (Creole; Haiti; VOD); Campeachy Logwood (Eng.; JFM); Campeachy Wood (Eng.; JFM); Campeche (Dor.; Fr.; Sp.; AVP; EFS); Campêche (Fr.; Guad.; Haiti; AVP; VOD); Campêchehout (Dutch; AVP; EFS); Campechier (Haiti; AHL); Campechy Wood (Eng.; Pr.; AVP; VOD); Campèggio (It.; AVP; EFS); Campeschenholz (Ger.; AVP); Couer Rouge (Fr.; AVP); Ek (Maya; Mex.; AVP; MAX; TTS); Kampe a Aci (Tur.; EFS); Kampescheholz (Ger.; EFS); Kanpèch (Creole; Haiti; VOD); Logwood (Bel.; Eng.; Jam.; AVP; USN; VOD); Palo Azul (Sp.; JFM); Palo Campeche (Sp.; EFS); Palo de Campeche (Cuba; Dor.; Mex.; Sp.; AHL; AVP; RyM; TRA; TTS); Palo de Tinta (Sp.; TTS); Palo de Tinte (Mex.; Sp.; AVP; TTS); Palo Negro (Cuba; Sp.; Trin.; JFM; LWW; TTS); Palo Tinto (Mex.; Sp.; TTS); Pao Campêche (Por.; AVP); Partanga (India; EFS); Pau Sanguinho (Por.; AVP); Peachwood (Eng.; EFS); Poachwood (Eng.; EFS); Tinta (Sp.; JFM; LWW); Tinto (Sp.; JFM; TTS). (Nscn).

### Activities:

Abortifacient (f; VOD); Aldose-Reductase-Inhibitor (f; TRA); Analgesic (f; DAW; VOD); Antiaggregant (1; TRA); Antiedemic (f1; TRA; VOD); Antifertility (f; VOD); Antiherpetic (1; TRA); Antiinflammatory (f1; PH2; TRA; VOD); Antimelanin (f; PH2); Antioxidant (f; TRA); Antiseptic (f1; AHL; DAW; PH2; TRA; VOD; WOI); Antiviral (1; TRA); Astringent (f1; DAW; EFS; PH2; TTS; WOI); Bactericide (1; DAW; WOI); Capillariprotective (f; TRA); Decoagulant (f; DAW); Depurative (f; DAW; JFM; VOD); Diuretic (f; TRA); Emmenagogue (f; VOD); Febrifuge (f; VOD); Gastroprotective (f; TRA); Hemostat (f1; AHL; DAW; EFS; VOD); Hepatoprotective (1; TRA); Tonic (f; DAW; JFM; WOI).

### Indications:

Amenorrhea (f; DAW; TRA); Anemia (f; TRA; VOD); Atony (f; WOI); Bacteria (1; DAW; TRA; WOI); Bedsores (f; DAW); Bleeding (f1; AHL; DAW; EFS; JFM; PH2; VOD); Cancer

(f; DAW; IED; JLH; WOI); Cataracts (1; TRA); Decubitus (f; DAW); Diarrhea (f1; DAW; JFM; LWW; MAX; PH2; TTS; VOD); Dysentery (f1; DAW; JFM; LWW; TTS; VOD); Dyspepsia (f; DAW); Edema (f1; TRA; VOD); Fever (f; VOD); Gangrene (f; DAW; WOI); Gastrosis (f; TRA); Headache (f; VOD); Hematochezia (f; DAW); Hepatosis (1; TRA); Herpes (1; TRA); Infection (f1; AHL; DAW; PH2; TRA; VOD; WOI); Inflammation (f1; PH2; TRA; VOD); Leukorrhea (f; DAW; WOI); *Mycobacterium* (1; TRA; WOI); Neurosis (f; VOD); Pain (f; DAW; VOD); Puerperium (f; DAW); Sores (f; DAW); Sprains (f; TRA); Swelling (f1; DAW; TRA; VOD); Toothache (f; VOD); Trauma (f; DAW; VOD); Tuberculosis (1; TRA); VD (f; VOD); Viruses (1; TRA).

**Dosages:**

FNFF = ? Doses equivalent to 1 g drug (HHB; PH2).

- Haitians apply bark to sores as antiseptic and hemostat (AHL).
- Haitians compress leaves on head for headache, inflammation, and nervous tension (VOD).
- Haitians take bark, leaf, or wood infusion, with salt, for amenorrhea, anemia, blood disorders, diarrhea, and dysentery (VOD).
- Haitians take leaf infusion with salt as mouthwash for toothache (VOD).
- Haitians take powdered leaf decoction for fever, hepatitis, and neuroses (VOD).
- Haitians take heartwood infusion for fever, the decoction for VD (VOD).
- Mauritians use the plant in pomades for cancer (JLH).
- Mexicans take chipped heartwood infusion for diarrhea and dysentery (JFM).
- Trinidadans take bark decoction or infusion as blood tonic (JFM).

**Downsides:**

Not covered (AHP). "Health risks or side effects following the proper administration of designated therapeutic dosages are not recorded" (PH2). Internal haematoxylin in animals may induce anuria, coma, hyperthermia, vomiting, and possibly death (PH2).

### ARCO-SACHA (*Hamelia axillaris* Sw.) ++

#### RUBIACEAE

**Illustrations:**

p 157 (MD2)

**Notes:**

Used against a superstitious disease called "mal de arco" and "caracha." In Loreto, "caracha" was usually ringworm, so I am scoring it similarly in Madre de Dios (MD2).

**Common Names:**

Arco Sacha (Sp.; MD2); Chirapanin Rao (Shipibo/Conibo; MD2).

**Activities:**

Fungicide (f; MD2).

**Indications:**

Dermatosis (f; MD2); Fungus (f; MD2); Infection (f; MD2); Ringworm (f; MD2); Stings (f; MD2).

**Dosages:**

FNFF = ? Berries of some species eaten (JAD).

**REDHEAD (*Hamelia patens* Jacq.) ++****RUBIACEAE****Illustrations:**

fig 158 (IED)

**Synonyms:***Hamelia erecta* Jacq.; *H. nodosa* Mart. & Gal.; fide (MPG; RAI; TBC).**Notes:**

Flowers attract butterflies and hummingbirds (RAI). Three hummingbirds (*Amazilia tzacatl*, *Damophila julie*, and *Thalurania furcata*) and the honeycreeper (*Coereba flaveola*) are perhaps pollinators. In Panama feeding pressure is so great in the rainy season that even immature fruits are taken by such birds as flycatchers, honeycreepers, tanagers, thrushes, toucans, and warblers (TBC).

**Common Names:**

Achiotillo Colorado (Hon.; AUS); Aguatillo (Mex.; AVP); Anavaco (Pr.; MPG); Añileto (Cr.; AUS; IED); Azulillo (Cr.; AUS; IED); Balsamo (Pr.; AUS); Balsamo Cimarron (Pr.; AUS); Balsamo Colorado (Pr.; AUS; AVP); Banasi (Cuba; AVP); Bensenuco (Col.; AUS; AVP); Benzen Yuca (Peru; DAV); Benzey Nuca (Peru; EGG); Bois Corail (Guad.; AUS; AVP); Bonasi (Cuba; AUS); Busunuco (Dor.; AVP); Buznuco (Dor.; AVP); Buzunaco (Dor.; AUS); Buzunaco Coral (Cuba; AUS); Buzunuco (Pr.; MPG); Cacaupaxtle (Nahuatl; Mex.; AUS); Canilla de Venado (Nic.; AUS; AVP); Canudo (Guat.; AUS); Cerva Conuco (Dor.; AUS); Chacloco (Maya; AUS); Chactoc (Maya; AUS); Chadoco (Maya; AUS); Chichipin (Guat.; Hon.; Nahuatl; Sal.; AUS); Chichipince (Guat.; Hon.; Nahuatl; Sal.; MPG); Chichipú (Guat.; Hon.; Nahuatl; Sal.; AUS); Clavillo (Hon.; AVP); Clavito (Guat.; AUS; AVP); Coloradillo (Hon.; AUS); Corail (Haiti; AUS; AVP); Corail Rouge (Haiti; AVP); Coral (Cuba; Hon.; AUS; AVP); Coralillo (Col.; Cr.; Cuba; Hon.; Mex.; Sal.; Ven.; AUS; AVP; MPG); Coralito (Col.; Ven.; AUS; AVP); Cresta de Gallo (Col.; AUS; AVP); Cuetillo (Ca.; AUS); Desyerba Conuco (Dor.; AUS; AVP); Doncilla (Sal.; AUS); Estirrina (Nic.; AUS); Fire Bush (Eng.; RAI); Fleur Corail (Guad.; Haiti; Mart.; AUS); Flor de Baño (Sal.; AUS; AVP); Flor de Cangrejo (Guat.; AUS; AVP); Guayabo (Pan.; AVP); Herba de Erisepala (Guat.; AUS); Herbe a Plomb (Guad.; AVP); Herva de Rato (Brazil; AUS; AVP); Hierba de Cancer (Guat.; AUS); Hierba de Cuba (Mex.; AUS); Hummingbird Bush (Eng.; RAI); Ix-Canan (Bel.; Maya; AAB; RAI); Ix Kanan (Maya; AUS); Juto Blanco (Peru; AVP); Kanan (Maya; AUS); K'anana (Maya; AUS); Klaush Pàm (Bel.; AUS); Koray (Pr.; MPG; RAI); Kunabiaya (Kunana; AUS); Leoncito (Col.; AUS; AVP); Maxe Xamasa (Cashibo; Peru; EGG); Mort aux Rats (Guad.; AVP); Neanan (Maya; AUS); Palo Camarón (Cr.; AUS; IED); Palo Cimarron (Cr.; AVP); Palo de Coral (Cuba; AUS; AVP); Pañete (Mex.; AVP); Papamiel (Nic.; AVP); Pata de Pajaro (Pr.; AUS); Pilí Tso (Cr.; AUS); Pisí (Cr.; AUS); Pissi (Cr.; IED); Polly Readhead (Eng.; RAI); Ponasí (Cuba; AUS; AVP; JTR; RAI); Ponasí Amarillo (Cuba; RyM); Ponosí (Cuba; JTR); Puca Ungui Sacha (Peru; Que.; EGG); Recadito (Col.; AUS); Red Fowl (Bel.; AVP); Redhead (Eng.; CR2; MPG; USN); Sac le Much (Maya; AUS); Sanalo Todo (Bel.; Sp.; AAB; RAI); Sancocho (Sal.; AUS); Sangre de Toro (Mex.; AVP); Sanguine (Guad.; AVP); Scarlet Bush (Bel.; Eng.; Pr.; AUS; AVP; RAI); Sibunkhen (Mex.; AUS); Sisipense (Sal.; AUS; AVP); Texas Firecracker Bush (Eng.; RAI); Tinto (Col.; AVP); Usia-Ey (Huitoto; Peru; EGG); Usya-Ey (Huitoto; Peru; Sp.; AVP; EGG; LOR; MDD); Uvero (Pan.; AVP; RAI); Xcanal (Maya; AUS); Xcanan (Maya; AUS); Xkane (Maya; AUS); Xuchit Paltimáltía (Sal.; AUS); Yoshin Coshqui Rao (Peru; DAV; EGG); Yuto Banco (Peru; DAV; EGG); Zambumbia (Sal.; AUS); Zorrillo (Cr.; AUS; AVP); Zorrillo Colorado (Cr.; MPG); Zorrillo Real (Cr.; AUS).

**Activities:**

Analgesic (f1; AAB; RAI; TRA); Antiedemic (1; X12065153); Antiinflammatory (f1; DAV; MPG; TRA; X12065153); Antioxidant (1; TRA); Antiseptic (f1; TRA); Antispasmodic (f1; AAB; RAI); Astringent (f1; AUS; JFM); Bactericide (f1; AAB; TRA; X12787962); Cicatrizant (f12; MPG; TRA); CNS-Depressant (1; TRA); Cytostatic (1; TRA; X161406); Depurative (f; RAI); Diuretic (f1; RAI; TRA); Febrifuge (f1; DAV; TRA); Fungicide (f1; AAB; RAI); Immunostimulant (f1; AAB; RAI); Mydriatic (1; TRA); Myorelaxant (1; X15467206); Parasiticide (1; RAI); Purgative (f; DAV; JFM); Vermifuge (f; SAR); Vulnerary (1; X12963138).

**Indications:**

Anemia (f; RAI); Bacteria (f1; AAB; RAI; TRA; X12787962); Bleeding (f1; DAV; RAI); Blisters (f; JFM); Bruises (f; AUS; JFM; RAI); Bugbites (f; AAB); Burns (f; AAB; RAI); Cancer (f; DAV); Childbirth (f; RAI); Cholera (f; DAV); Constipation (f; DAV); Cramps (f1; AAB; RAI); Dermatoses (f; JFM; RAI); Diarrhea (f; EB24:359; RAI); Dysentery (f; DAV; JFM; RAI; RyM); Dysmenorrhea (f1; AAB; JFM; RAI; X15467206); Eczema (f; JFM); Edema (1; X12065153); Enterosis (f; RAI); Erysipelas (f; DAV; RyM); *Escherichia* (1; AAB; AUS); Fever (f1; DAV; EB24:359; RAI; TRA); Fungus (f1; AAB; RAI); Headache (f12; JFM; TRA); Hematochezia (f1; DAV; RAI); Immunodepression (f1; AAB; RAI); Infection (f1; AAB; RAI; TRA; X12787962); Inflammation (f1; DAV; MPG; RAI; TRA; X12065153); Itch (f; AAB; RyM); Jaundice (f; DAV); Malaria (f; DAV); Measles (f; AUS); Migraine (f; MPG; RAI); Mycosis (f1; AAB; RAI); Nervousness (f; RAI); Oliguria (1; RAI); Pain (f1; AAB; RAI; TRA); Parasites (f1; AAB; RAI); Pharyngosis (f; DAV); Rage (f; RAI); Rashes (f; AAB); Rheumatism (f1; JFM; RAI; TRA); *Salmonella* (1; AAB; AUS; TRA); Sarcina (1; AAB; AUS); Scurvy (f1; DAV; RAI); Serratia (1; AUS); *Shigella* (1; AUS; TRA); Sores (f; JFM; RAI); Spasms (f1; AAB; RAI); Sprains (f; RAI); *Staphylococcus* (1; AAB; AUS); Stomachache (f; JFM); Strain (f; RAI); Sunstroke (f; DAV; RAI); Syphilis (f; RAI); Uterosis (f; JFM); Vaginosis (f; JFM); VD (f; RAI); Worms (f; RAI; SAR); Wounds (f12; MPG; TRA; X12963138).

**Dosages:**

FNFF = ! Berries edible, made into wine in Mexico (RAI). 1 cup leaf tea 2–3×/day; 1–2 ml leaf tincture 2–3×/day.

- Amazonians take for cancer, cholera, constipation, dermatoses, diarrhea, dysentery, erysipelas, fever, headache, jaundice, malaria, scurvy, sores, and wounds (DAV; RAI).
- Belizeans use for burns, cramps, dysmenorrhea, cuts, fungus, infection, itch, rashes, sores, and wounds (AAB; RAI).
- Brazilians take for headache or scabies (RAI).
- Chocó Indians drink the leaf infusion for fever and diarrhea with blood (DAV; IED).
- Costa Ricans take for migraine (RAI).
- Cubans suggest for dermatosis, headache, itch, rheumatism, and sores (JTR; RAI).
- Guatemalans take for dysentery and dysmenorrhea (RAI).
- Haitians take for abortion, anemia, dysmenorrhea, headache, nervousness, shock, and rage (RAI).
- Ingano value leaf tea as vermifuge (SAR).
- Mexicans take for bleeding wounds, dermatoses, and sores (RAI).
- Panamanians take for bugbite, diarrhea, fever, hematochezia, and postpartum pain (DAV; RAI).
- Peruvians take for aphthosa, constipation, dysentery, fever, inflammation, itch, pain, pharyngosis, rheumatism, scurvy, worms, and wounds, applying heated leaves as analgesic (DAV; EGG; RAI).
- Venezuelans take for headache, jaundice, sunstroke, and syphilis (DAV; JFM; RAI).
- Waunana Indians drink juice from macerated leaves and flowers for cholera (DAV).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.

**Extracts:**

LD50 extract 1,540 mg/kg (TRA).

**BAYLAHUEN (*Haplopappus baylahuen* J. Remy.) +****ASTERACEAE****Illustrations:**

p 119 (MPG)

**Notes:**

Four different Chilean shrubs are called by the common name “baylahuen” (*Haplopappus baylahuen* J. Remy, *H. taeda* Reiche, *H. multifolius* Phil., and *H. remyanus* Wedd). Perhaps surprisingly, *H. baylahuen* had the lowest antioxidant and antiradicular activities. Flavonoids predominated in *H. taeda*, coumarins in *H. multifolius*, both in *H. baylahuen* and *H. remyanus* (X15652282).

**Common Names:**

Bailabuena (Chile; MPG); Baylahuén (Chile; Sp.; MPG; USN); Baylahuina (Chile; MPG); Chechenaha (Chile; MPG); Checheraja (Chile; Sp.; MPG; USN); Chejchjra (Chile; MPG); Guaylaven (Chile; MPG); Vai Lahuén (Chile; MPG). (Nscn).

**Activities:**

Antioxidant (1; X15652282; X16619353); Antiradicular (1; X15652282); Aphrodisiac (f; MPG); Choleric (f; MPG); Emmenagogue (f; MPG); Hepatotonic (1; X15652282); Tonic (f; MPG).

**Indications:**

Amenorrhoea (f; MPG); Cancer (f; JLH); Chills (f; MPG); Gastrosis (f; MPG); Hepatosis (f; MPG); Impotence (f; MPG); Pain (f; MPG); Stomachache (f; MPG).

**Dosages:**

FNFF = ?

**Extracts:**

The tea from *H. baylahuen* had the highest TEAC quenching activity and was particularly potent in quenching HClO activity (150 ml of tea = ~ 200 mg Trolox) (X16619353). In other studies *H. baylahuen* showed the lowest antioxidant capacity when compared to other species of *Haplopappus*; methanolic extract of *H. multifolius* had the highest result (X15652282).

**SUMA (*Hebanthe eriantha* (Poir.) Pedersen) ++****AMARANTHACEAE****Synonyms:**

*Gomphrena paniculata* (Mart.) Moq.; *Hebanthe paniculata* Mart.; *Pfaffia paniculata* (Mart.) Kuntze; fide (USN).

**Notes:**

When it comes to a showdown between the USDA Nomenclature Database (USN) and McGuffin et al. (1997) standardized common names nomenclature (AHP), I go with USDA,

hence I am carrying this under the scientific name *Hebanthe*. McGuffin et al. (2000) goes with *Pfaffia*. Once a well-known and well-published author offered me a generous consulting fee to go through the Spanish and Portuguese literature and summarize the published folk literature and information on “suma.” I had written on the plant long ago for the *Flora of Panama*, where this species also occurs. He came from one of the four main entry disciplines to ethnobotany, herbal medicine and medical botany, (1) anthropology, (2) botany, (3) chemistry, and (4) pharmacy/pharmacology but I’ll not divulge his name. I searched for four days but found nothing. There wasn’t any early folk medicinal literature in the books I consulted at least. He refused to pay me my four days consulting fee, because my report was negative. That scientist continued to publish, often copying (without citing) other ethnobotanical writers’ data. And he was what I called one of the paid “hypesters,” who would write a positive opinion page on a relatively worthless herb, for a fee. Then an unscrupulous pusher would sell that product based on “Doctor Hypester’s” glittering report, often handed out as (pseudo)scientific literature based on “Dr. Hypester’s” world renown. Both hypester and huckster made money while damaging the images of honest herbs and herbalists. And sometimes they threatened those who would expose the lack of credibility of some of those studies.

There has been some subsequent work published on suma, mostly from Japan, but as with camu-camu and maca, I find very little published folkloric medicine until quite recently. Remember, though, there was no early published folklore for cancer for the North American mayapples or yew, but both have yielded important hard core pharmaceuticals for cancer.

#### Common Names:

Brazilian Ginseng (Eng.; RAI); Carango (Brazil; MPB); Corango Açu (Brazil; RAI); Para Todo (Brazil; RAI); Paratudo (Brazil; MPB); Russian Secret (Eng.; RAI); Suma (as *Pfaffia paniculata*; USN).

#### Activities:

Adaptogenic (f; APA; RAI); Anabolic (f; RAI); Analgesic (f; RAI); Androgenic (1; X14967943); Antiaging (f; MPB); Antiallergenic (f; RAI); Antiascites (1; APA); Anticancer (f1; APA; MPB; X16039950); Antidiabetic (f; MPB); Antiinflammatory (f; RAI); Antileukemic (1; X10917139); Antilymphomic (1; RAI); Antimelanomic (f; APA); Antineoplastic (1; X16051424); Antitumor (1; APA); Antiviral (f; APA); Aphrodisiac (f1; MPB; X10227074); Chemopreventive (f; APA); Circulotonic (f; RAI); Estrogenic (1; RAI; X14967943); Hypoglycemic (1; X15784959); Immunostimulant (f1; APA; RAI; X16214177); Memorogenic (f; RAI); Myotonic (f; RAI); Orexigenic (f; RAI); Phagocytotic (1; X16214177); Progesterogenic (1; X14967943); Testosterogenic (1; X14967943); Tonic (f; MPB); Tranquilizer (f; RAI).

#### Indications:

Aging (f; MPB); Allergies (f; RAI); Alzheimer’s (f; RAI); Anemia (f1; RAI; X11091225); Arteriosclerosis (f; RAI); Arthrosis (f; RAI); Asthma (f; RAI); Bronchosis (f; RAI); Cancer (f1; APA; MPB; X16039950); Cancer, colon (1; RAI); Cancer, liver (1; X16039950); Cancer, lung (1; RAI); CFS (f; RAI); Circulosis (f; RAI); Diabetes (f1; APA; MPB; X15784959); Dysentery (f; RAI); Dysmenorrhea (f; RAI); Dyspepsia (f; RAI); EBV (f; APA; RAI); Enterosis (1; RAI); Fatigue (f; APA); Gas (f; RAI); Gastrosis (f; RAI); Hepatosis (1; X16039950); High Blood Pressure (f; RAI); High Cholesterol (f; RAI); Hyperglycemia (1; RAI; X15784959); Immunodepression (f; RAI); Impotence (f1; MPB; RAI; X10227074); Inflammation (f1; RAI); Leukemia (1; RAI; X10917139); Lymphoma (1; RAI); Malaria (f; RAI); Melanoma (f; APA); Memory (f; RAI); Menopause (f; APA; RAI); Mononucleosis (f; RAI); Neurosis (f; RAI); Pain (f1; RAI); PMS (f; RAI); Psoriasis (f; RAI); Rheumatism (f; RAI); Sick Cell Anemia (1; X11091225); Sterility (f; RAI); Stomachache (f; RAI); Stress (f; APA; RAI); Tremors (f; RAI); Tumors (f; RAI); Viruses (f; APA).

**Dosages:**

FNFF = ! 500–1,000 mg dry herb 2–3×/day (APA); 1–2 (520 mg) capsules 2×/day (APA). One edible plant book describes suma as “Brazilian ginseng,” a promotional misnomer. I suspect the book is passing along some hype, which I doubt, when it says, “The roots have reportedly been used as a ginseng-like tonic by the Xingu tribe of Matto Grosso, Brazil for at least three hundred years” (FAC).

- Brazilians use for anemia, arthritis, asthma, cancer, CFS, circulatory disorders, dermatosis, diabetes, EBV, high blood pressure, hyperglycemia, immunodistress, impotence, inflammation, leukemia, lymphatic ails, mononucleosis, pain, rheumatism, sores, stress, tremors, and tumors (RAI).
- Ecuadorians use for arteriosclerosis, bronchosis, circulosis, diabetes, dyspepsia, hormonal problems, rheumatism, sexual dysfunction, and sterility (RAI).
- Peruvians use for diarrhea, dysentery, fever, flatulence, malaria, and stomachache (RAI).

**Downsides:**

Class 1 (AHP). Not covered (KOM; PHR; PH2). As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

## SINICUICHI (*Heimia salicifolia* Link) + LYTHRACEAE

**Common Names:**

Erva-da-Vida (Por.; USN); Sinicuichi (USN); Willow-Leaf Heimia (Eng.; USN).

**Activities:**

Anticholinergic (1; CRC); Antidote (1; CRC); Antiinflammatory (1; X7934084); Antispasmodic (1; CRC; X7934084); Antisyphilitic (f; X7934084); Anxiolytic (1; CRC); Astringent (1; CRC); Bactericide (1; X7990503); Depurative (f; CRC); Diaphoretic (f; CRC); Diuretic (f; CRC; X7934084); Emetic (f; CRC); Febrifuge (f; X7934084); Hallucinogen (1; CRC); Hemostat (f; CRC); Intoxicant (1; CRC); Laxative (f; CRC; X7934084); Myorelaxant (1; CRC); Narcotic (1; CRC); Poison (1; CRC); Prostaglandin Synthetase-Inhibitor (1; X3086627); Psychotomimetic (1; CRC); Purgative (f; CRC); Sedative (f; CRC); Sudorific (f; CRC; X7934084); Tonic (f; CRC); Tranquilizer (1; CRC); Vasodilator (1; CRC); Vulnerary (f; CRC).

**Indications:**

Addison's (1; X7934084); Anxiety (1; CRC); Bacteria (1; X7990503); Bleeding (f; CRC); Bronchosis (f; CRC); Constipation (f; CRC; X7934084); Dysentery (f; CRC); Dyspepsia (f; CRC); Fever (f; CRC; X7934084); Infection (1; X7990503); Inflammation (1; X7934084); Insomnia (f1; CRC); Nephrosis (1; X7934084); *Salmonella* (1; X7990503); Sores (f; CRC); Spasms (1; X7934084); Syphilis (f; CRC; X7934084); VD (f; CRC); Wounds (f; CRC).

**Dosages:**

FNFF = ?

**Downsides:**

Not covered (AHP; KOM; PHR). As of July 2007, the FDA Poisonous Plant Database listed 12 titles alluding to toxicity of this species.

**Extracts:**

Boiling water extract from aerial parts antibacterial against *Salmonella typhi* (X7990503). The alkaloids vertine and lythrine lack the psychodysleptic activity reported for the native



brews, but do exhibit ataractic, antiinflammatory, and antispasmodic activity; lythrine being hydrodiuretic may have use in Addison's disease and nephrosis (X7934084). Two alkaloids, ryogenine and nesodine, inhibited prostaglandin synthetase 2.48 and 2.24 times (respectively) as potently as aspirin, whereas indomethacin and phenylbutazone were 2800 and 8.75 times (respectively) as potent as aspirin (X3086627).

## HEISTERIA (*Heisteria acuminata* (Humb. & Bonpl.) Engl.) +

### OLACACEAE

#### Synonyms:

*Heisteria burchellii* Hochr.; *H. celastrinea* Triana & Planch.; *H. cyanocarpa* Poepp.; *H. cyathiformis* Little; *H. ixiamensis* Rusby; *H. longipes* Standl.; *H. pallida* Engl.; *H. rhaptostylum* Triana & Planch.; *Rhaptostylum acuminatum* Humb. & Bonpl.; fide (EGG; MBC).

#### Notes:

Same common names and activities may sometimes apply to the unrelated *Maytenus*. For that reason I use "Heisteria" as the common name rather than continuing the confusion of having unrelated species called "chuchuhuasi."

#### Common Names:

Chocha Huasha (Shipibo/Conibo; EGG); Chuchohasi (Peru; DAV); Chuchuhuasha (Peru; EGG); Chuchuhuasi (Peru; EGG); Cotoma (Huitoto; EGG); Cotoma Masasey (Huitoto; EGG); Huarmi-Chuchuhuasha (Peru; EGG); Huarmi-Huarmi (Peru; EGG); Masacey (Peru; EGG); Moena (Peru; EGG); Naranjo Caspi (Peru; EGG). (Nscn).

#### Activities:

Antiherpetic (1; X10190189); Antiseptic (f; EGG); Antiviral (1; X10190189); Aphrodisiac (f; DAV; EGG); Cicatrizant (f; MD2); COX-Inhibitor (1; X9584394); Febrifuge (f; RAR); 5-Lipoxygenase-Inhibitor (1; X9584394); Tonic (f; DAV; EGG; MD2); Vulnerary (f; DAV; EGG).

#### Indications:

Arthritis (f; DAV; EGG); Caries (f; MD2); Colds (f; MD2); Diarrhea (f; EGG); Dislocations (f; MD2); Dyspepsia (f; EGG); Enterosis (f; EGG); Fever (f; RAR); Hepatosis (f; RAR); Hernia (f; DAV; EGG); Herpes (1; X10190189); Impotence (f; DAV; EGG); Infection (f1; EGG; X10190189); Pain (f; EGG); Rheumatism (f; DAV; EGG; MD2); Thrush (f; MD2); Toothache (f; MD2); Viruses (1; X10190189); Wounds (f; DAV; EGG; MD2); Yeast (f; MD2).

#### Dosages:

FNFF = ?

- Madre de Dios Peruvians apply powdered bark and drink decoction for dislocations (MD2).
- Madre de Dios Peruvians apply bark juice to thrush a/o yeast (MD2).
- Madre de Dios Peruvians chew bark to prevent caries and to alleviate toothache (MD2).
- Peruvians drink bark tincture for colds and rheumatic pain (EGG; MD2).
- Peruvians take tonic bark tea for diarrhea, dyspepsia, and enterosis (EGG).
- Peruvians use mashed leaves in pomades for hernias, infections, and wounds (EGG).

#### Extracts:

Ethanollic extract exhibited antiviral activity against both DNA and RNA viruses (HSV-1 and VSV, respectively) at 125–250 µg/ml (X10190189). The bark yielded five new linear

acetylenic compounds, pentadeca-6,8,10-triynoic acid, octadeca-8,10,12-triynoic acid, trans-pentadec-10-en-6,8-diynoic acid, cis-hexadec-11-en-7,9-diynoic acid, and cis-octadec-12-en-7,9-diynoic acid, all of which exhibited strong COX- and weak 5-lipoxygenase inhibition with the exception of cis-hexadec-11-en-7,9-diynoic acid, and cis-octadec-12-en-7,9-diynoic acid, which were the most potent 5-lipoxygenase inhibitors (X9584394).

## INDIAN HELIOTROPE (*Heliotropium indicum* L.) + BORAGINACEAE

### Illustrations:

p 158 (AAB); pl 651A (KAB)

### Common Names:

Ajeru (Kon.; NAD); Akomfemkonakyi (Twi; KAB); Akorkortubatuba (Twi; KAB); Akormfairtikobo (Ashanti; KAB); Alacran (Col.; Cr.; AVP); Alacrancillo (Cr.; Cuba; Mex.; Sp.; HTR; USN); Alacrancillo de Playa (Pr.; JTR); Ansamkonakyi (Twi; KAB); Apumpumo (Aowin; KAB); Aquaraciun-ha-Acu (Ma.; JFM); Bhurundi (Mar.; Sanskrit; KAB); Bigotitos (Sp.; AVP; JFM); Borracha Brava (Ma.; JFM); Borragem Brava (Brazil; MPB); Borraja de la Tierra (Ma.; JFM); Borrajón (Pr.; JFM; JLH; JTR); Burundi (Bom.; KAB); Cabracabra (Vis.; KAB); Cambracambra (Vis.; KAB); Chalukondee (Kan.; NAD); Chapputattu (India; KAB); Chelukondi (Kan.; MPI); Clary (Ma.; JFM); Cock's Comb (Eng.; Gambia; KAB; UPW); Cola de Alacrán (Bel.; Ma.; AAB; BNA; JFM); Cotingcotingan (Tag.; KAB); Cotorrera (Cuba; Pr.; Sp.; AVP; JTR); Cotorrerilla (Pr.; Sp.; AVP); Cresta de Gallo (Lan.; KAB); Crête-a-Coq (Guad.; AVP); Crête-Coq (Guiana; Haiti; AVP; KAB); Crête-Coq d'Inde (Guad.; Haiti; AVP; VOD); Crête de Coq (Fr.; Fwi.; AVP; JTR); Crête Dinde (Creole; Guy.; GMJ); Crista de Galo (Por.; GMJ); Da Wei Yao (Pin.; DAA); Dimiibiya (Sin.; KAB); Eksaetiya (Sin.; KAB); Erva de Sao Fiacre (Ma.; JFM); Erysipelas Plant (Eng.; JFM); Ethonda (Sin.; KAB); Etsetiya (Sin.; KAB); Fedegoso (Brazil; MPB); Flor de Alacran (Ma.; Sp.; JFM); Gbekengbiiawor (Ga; KAB); Gros Verveine (Guad.; Guy.; AVP); Gueguecho (Ma.; JFM); Hastihundi (Sanskrit; KAB); Hastisundha (Guj.; Sanskrit; KAB; NAD); Hâthi Sundhâne (India; EFS); Hatisunada (Sanskrit; KAB); Hatisura (Ben.; Oriya; KAB); Hattajurie (Hindi; KAB; NAD); Hattasura (Hindi; KAB); Heliotrope (Eng.; Fr.; AVP); Héliotrope des Indes (Fr.; NAD); Héliotrope Indienne (Fr.; EFS); Heliotropio Indiano (Por.; UPW); Heliótropo (Sp.; AVP; EFS); Herbe a Chiques Veloutees (Fr.; AVP); Herbe a Malingres (Fr.; Guy.; Mart.; AVP; KAB); Herbe a Pian (Fr.; Mart.; AVP); Herbe Aux Papillons (Réunion; KAB); Herbe a Verrues (Fr.; Mart.; AVP; UPW); Herbe Saint Fiacre (Fwi.; JTR); Hierba de Alacrán (Ma.; JFM); Hierba de Mula (Ma.; JFM); Hierba de Sapo (Ma.; JFM); Hilalayon (Tag.; KAB); Himlalayon (Tag.; KAB); Hoste Suda (Sanskrit; EFS); Icogicogsangcuti (Vis.; KAB); Ihuin Rao (Peru; Shipibo/Conibo; Sp.; EGG; LOR); Indian Heliotrope (Eng.; CR2; USN; VOD); Indian Turnsole (Jam.; AVP; EFS); Indische Heliotroop (Dutch; EFS); Indische Sonnenwende (Ger.; EFS); Jacuacanga (Ma.; JFM); Jinkin Kala (Malaya; KAB); Kaka Kakan (Ma.; JFM); Koklotortsu (Awuna; KAB); Kret Kok (Creole; Haiti; VOD); Kuro (Nepal; NPM); Lagartillo (Cr.; Sp.; AVP); Lengua de Sapo (Mex.; Sp.; AVP); Mocos de Pavo (Dor.; Sp.; AVP); Moncikou (Sudan; AVP); Mont Joli (Fr.; AVP); Nagadanti (Tel.; MPI; NAD); Nakkipoo (Tam.; NAD); Nemax (Ma.; JFM); Noncikou (Sudan; AVP); Nonocikou (Sudan; AVP); Ohesimah (Ma.; JFM); Pico de Zope (Ma.; JFM); Piltone Velue (Fr.; AVP); Pramoi Damrey (Cam.; KAB); Rabo de Alacrán (Pr.; JFM; JLH; JTR); Rabo de Galo (Por.; GMJ); Rabo de Mico (Mex.; Sp.; AVP); Rumput Ekor Kuching (Malaya; EFS); Rumput Oleh (Malaya; KAB); Scorpion Tail (Bel.; BNA); Scorpionweed (Ma.; JFM); Seri Bumi (Malaya; KAB); Shri Hastine (Sanskrit; EFS; KAB; NAD); Siriari (Hindi; KAB); Suryavarta (Sanskrit; NAD); Takaak Arib Iwuiti Duwe (Palikur; GMJ); Tel-

hata (Mal.; NAD); Teliyenni (Mal.; NAD); Telkodduki (Tam.; KAB); Telmani (Tam.; KAB); Thoquanya (Bol.; Que.; DLZ); Trompalipaute (Vis.; KAB); Turnsole (Eng.; USN); Uculucui Sacha (Peru; EGG; SOU); Verbeine a Pians (Ma.; JFM); Verrucaria d'India (It.; EFS); Verveine a Pian (Guad.; AVP); Verveine Crête-de-Coq (Crole; Haiti; VOD); Wakurus Umah (Ulwa; ULW); Wild Clary (Jam.; AVP); Yerba de Borrajou (Sp.; KAB); Yerba de Cotona (Pr.; Sp.; AVP; KAB); Yerba de Cotorra (Ma.; JFM); Yerba de Culebra (Ma.; JFM); Zèb a Malin'n (Creole; Haiti; VOD); Zèb á Pian (Creole; Haiti; VOD).

### Activities:

Abortifacient (f; DAV); Analgesic (f; DAV; EFS; JTR); Antiabortive (f; DAV; KAB); Anticancer (f; JLH; 60P); Antileukemic (f; 60P); Antimelanomic (f; 60P); Antispasmodic (1; AAB); Astringent (1; DAV; JFM; WOI); Carcinogenic (f1; AAB); Collyrium (f; AAB); Depurative (f; VOD); Diaphoretic (f; JFM); Diuretic (f; DAV; UPW; 60P); Emmenagogue (f; JFM; 60P); Emollient (f; DAV); Fungicide (1; MPI); Hepatotoxic (f; AAB); Hypotensive (1; MPI); Hypouricemic (f; EGG; SOU; 60P); Litholytic (f; EGG); Pectoral (f; DAV; 60P); Sterilant (f; MPI; X12266264); Stomachic (f; DAV; WOI; 60P); Tonic (f; EGG; RAR); Toxic (1; X10321015); Uterotonic (1; AAB); Vulnerary (f1; DAV; EGG; VOD; X11801388; 60P).

### Indications:

Abscesses (f; JFM); Acne (f; NAD); Amenorrhea (f; JFM); Aphtha (f; DAV; 60P); Arthritis (f; DAV); Asthma (f; DAV; JFM; JTR; 60P); Bites (f; DAV; IED; ULW; 60P); Bleeding (f1; IED; JFM; KAB); Boils (f; DAV; JFM; 60P); Bronchosis (f; JFM); Calculus (f; DAV; EGG; JTR; RAR); Cancer (f1; JLH; X7093966; 60P); Cataracts (f; VOD); Chilblains (f; JFM); Childbirth (f; JFM); Colds (f; JFM); Conjunctivitis (f; MPI); Convulsions (f; UPW); Coughs (f; JFM; JTR; 60P); Dermatitis (f; AAB; IED; ULW; VOD; 60P); Diarrhea (f; AAB; IED; ULW); Dysentery (f; JFM); Dysmenorrhea (f; AAB; IED); Eczema (f; DAV; EGG; JFM; JTR; 60P); Enterosis (f; JFM); Erysipelas (f; DAV); Fever (f; DAV; JFM; 60V); Fungus (1; MPI); Furuncle (f; DAV; 60P); Gingivitis (f; WOI); Gonorrhea (f; KAB; UPW); Gout (f; EGG; JTR; SOU); Gravel (f; 60P); Headache (f; UPW); Hemorrhoids (f; JFM); Hernia (f; UPW); Herpes (f; UPW); High Blood Pressure (1; FNF; MPI); Hyperuricemia (f; JFM; JTR; SOU); Impetigo (f; UPW); Infection (1; MPI); Inflammation (f; DAV; JFM; JLH; 60P); Itch (f; DAV; WOI); Kidney Stones (f; DLZ; EGG; JFM); Laziness (f; EGG); Leprosy (f; DAV); Leukemia (f1; 60P); Leukoma (f; VOD); Malaise (f; AAB); Malaria (1; JFM); Melanoma (f1; X7093966; 60P); Myalgia (f; DAV; JFM; JTR); Mycosis (1; MPI); Nausea (f; AAB); Nephrosis (f; DAV; EGG; 60P); Ophthalmia (f; JFM; NAD; VOD); Pain (f; AAB; DAV; EFS; JTR); Paroxysm (f; JFM); Pharyngitis (f; DAV; VOD); Pregnancy (f; UPW); Rashes (f; IED); Rheumatism (f; DAV; UPW; 60P); Scabies (f; DAV); Sinusitis (f; UPW); Sores (f; IED); Sore Throat (f; JFM; KAB; VOD); Spasms (1; AAB); Stings (f; IED; 60P); Stones (f; EGG; JTR; RAR); Thrush (f; UPW); Tumors (f1; FNF; JLH); Ulcers (f; WOI); VD (f; KAB); Vomiting (f; AAB); Warts (f; EGG; JLH); Worms (f; UPW); Wounds (f1; DAV; EGG; VOD; WOI; X11801388; 60P); Yaws (f; KAB); Yeast (f; UPW).

### Dosages:

FNFF = ? Leaves of other species eaten (FAC; TAN). 6 g leaf/100 g water antimalarial (JFM); boil 3 (15-cm) stems with leaf 5 min in 3 cups water and drink warm.

- Belizeans bathe infant in decoction (boil entire plant in 1 gal water 5 min) for infantile diarrhea, malaise, or vomiting (AAB).
- Belizeans boil 3 leaves in 1 cup water 10 min then strain for collyrium (AAB).
- Cubans apply expressed juice to eczemic lesions (JTR).
- Cubans take decoction for hyperuricemia and kidney stones (JTR).
- Dominicans plaster crushed leaves on sores and wounds (VOD).

- Dominicans use shoot infusion to wash dermatoses, and with milk added as depurative (VOD).
- Haitians drop leaf juice into the eyes for leukoma, from flowering stems for cataracts, and on wounds as vulnerary (VOD).
- Haitians gargle the shoot decoction for throat problems (VOD).
- Mexicans use for asthma and cough (JTR).
- Peruvians suggest the plant decoction for renal calculus (EGG).
- Ulwa take leaf decoction orally for bites, dermatosis, and diarrhea (ULW).

**Downsides:**

May be toxic if drunk regularly or in large doses (carcinogenic a/o liver toxicity). Over 4 years more than 75% of a population of about 110 horses in Costa Rica died after neurological symptoms. Pathological findings in 2 horses coincided with those reported for pyrrolizidine alkaloids, with toxicological investigations implicating *Heliotropium indicum* as the most probable principal cause of the intoxication (X10321015). As of July 2007, the FDA Poisonous Plant Database listed 23 titles alluding to toxicity of this species.

**Extracts:**

LD50 (extract) >1,000 mg/kg ipr mus (MPI).

**HELOSIS (*Helosis cayennensis* (Sw.) Spreng.) ++**  
**BALANOPHORACEAE**



**Illustrations:**

p 74 (MPB)

**Synonyms:**

*Cynomorium cayennense* Sw. (basionym); fide (USN).

**Notes:**

Said to be parasitic on Myrtaceae (SOU). Apparently there are only three very similar species, scarcely if at all distinguished by the locals. Castner et al. (1998) gave it the common name “blood mushroom,” stating correctly that it is not a mushroom but a flowering plant which has been reduced to parasitic or saprophytic status, like a mushroom (CTD). Since it is not a mushroom, I use the generic name as common name here. Data below may as well apply to *H. guyannensis*.



**Common Names:**

Aguajillo (Peru; Sp.; LOR; MDD); Blood Mushroom (Eng.; CTD); Cojamba (Col.; SAR); Espiga de Sangue (Brazil; MPB); Flor da Terra (Brazil; SAR); Mai Toco (Peru; Sp.; LOR; MDD).

**Activities:**

Antiechymotic (f; DAV); Antiinflammatory (f; DAV); Astringent (f; MPB); Hemostat (f; DAV; MPB).

**Indications:**

Bleeding (f; DAV; MPB); Diarrhea (f; MPB; SAR); Dysentery (f; SAR); Hemoptysis (f; MPB); Inflammation (f; DAV).

**Dosages:**

FNFF = ? Powdered roots used to stop bleeding (MPB).

H

**TAMSHI (*Heteropsis jenmanii* Oliv.) +  
ARACEAE**

**Illustrations:**

f 117 (DAV)

**Notes:**

The long pendulous aerial roots of this epiphyte (and congeneric relatives) are used in basketry, construction, handicrafts, purses, and in tying the houses together. Lacaze and Alexiades (1995) names, activities, and indications relate to *Heteropsis oblongifolia* Kunth (MD2). EGG (Egg, 1999), SAR (Schultes and Raffauf, 1990), and RAR (Rutter, 1990) entries apply to *H. jenmannii*.

**Common Names:**

Aniash (Amahuaca; MD2); Ara (Peru; RAR); Aro (Peru; EGG); Ayash (Shipibo/Conibo; EGG); Bejuco Yaré (Col.; SAR); Caajioca (Peru; EGG); Cesto Támushi (Peru; EGG; RAR); Cipo Titica (Brazil; RAR); Dyahoofe (Peru; EGG); Gagapitsa (Piro; Yine; MD2); Hayaanx (Amahuaca; EGG; RAR); 'Ignki'mbi (Amarakaeri; MD2); Mamure (Kuripako; Sa.; SAR); Petaka Tamushi (Peru; RAR); Pichime (Ese'aja; MD2); Támishi (Sp.; EGG; MD2); Tamshi (Lor.; Mdd.; Sp.; DAV; MD2); Támshi Delgado (Peru; DAV; EGG); Tamushi (Peru; EGG); Tsapi (Piro; Yine; MD2).

**Activities:**

Analgesic (f; MD2); Contraceptive (f; MD2); Hemostat (f; MD2).

**Indications:**

Bleeding (f; MD2); Caries (f; EGG); Dysmenorrhea (f; MD2); Metrorrhagia (f; MD2); Pain (f; MD2); Prolapse (f; EGG); Toothache (f; EGG; MD2); Vaginitis (f; EGG; MD2).

**Dosages:**

FNFF = ! Fruits eaten (MD2).

- Madre de Dios natives take decoction for vaginal bleeding (MD2).
- Madre de Dios natives treat toothache by chewing on tender parts (MD2).
- Peruvians mix with other plants as contraceptive (MD2).
- Peruvians use stem decocted with bobinzana and chuchuhuasi to treat vaginal hemorrhage a/o prolapse (EGG).
- Shipibo grate and boil the powdered stems and use to massage mouth 2x/day for 2 weeks in alternative months of the year to prevent caries; to treat cavities and toothache, they apply mashed buds (EGG).

**Downsides:**

Various authors describe the plant as poison (DAV; SAR).

**PARA RUBBER (*Hevea brasiliensis* (Willd. ex A. Juss.) Muell. Arg.) +  
EUPHORBIACEAE**

**Illustrations:**

fig 118 (DAV); pl 152A (DAG)

**Synonyms:**

*Siphonia brasiliensis* Willd. ex A. Juss. (basionym); fide (USN).

**Notes:**

Too many of the Latin American books comment on the uses of rubber, a major commodity, not mentioning any medicinal uses, however trivial (e.g., DLZ; EGG; RAR; SOU). Soukup (1970) recites the interesting comment that *Hevea brasiliensis* has a swamp variety and a high ground variety. Strangely, my major Brazilian source (MPB), doesn't even list it, presumably for lack of medicinal information. I haven't looked at all of them, but most of the many PubMed citations are for negative (allergy; 125 hits on allergy and *Hevea*) rather than positive medicinal properties. Many physicians are allergic to the rubber gloves they must don so often. And *Hevea* condoms have also caused allergies (only 2 abstracts in PubMed).

Much ado about rubber but little ado about its traditional medicinal uses. So I quote here from the *Amazon Ethnobotanical Dictionary* (Duke and Vasquez, 1994): "*Hevea brasiliensis* (Willd. ex A. Juss.) Muell. Arg. Euphorbiaceae. "Shiringa," "Jebe débil fino," "Sernambi," "Rubber." Latex for rubber production. Cooked seeds are edible. The rubber provided by *Hevea* species cannot be matched by synthetic rubber for some applications; high quality tires require 40% natural rubber on radial tires, to 95% in space vehicles (RVM). According to Mark Plotkin, Amazonian Indians not only ate the seeds but "dipped their feet in the latex and dried them over the fire, thus creating the first custom-made sneakers." Mark tells me, in a personal communication (Feb. 27, 2006), that he read about that in Auklet, 1776. And he says he saw repeated uses in Suriname of *Hevea* spp. sap being used to suffocate and peel off botfly larvae. The use is so predominant that they are using it in the Shaman's Apprentice clinic! Bruce Hoffman has a picture of himself being treated with it" (Mark Plotkin, per. comm. 2006). Brad Bennett (also per. comm. 2006) reminds me that: "According to Schultes and Raffauf (1990), the Waorani employ *H. guianensis* latex to treat infections from warble fly bites. The latex also is consumed as a tonic."

I must include this species in my *Handbook of Medicinal Plants of Latin America*. In a sense it's medicine for the hemisphere. Count the ways you have used rubber yourself, some medicinal, some not. It is said, and I believe, that over a decade the rubber and brazilnuts harvested from an expanse of Amazonian rainforest will produce more income than that same expanse converted to cattle or soybean. Under the first scenario you still have a vibrant and productive remunerative forest, the lungs of a healthier hemisphere. Under the second scenario, you have a depauperate devastated desert (laterite or oxysol).

#### Common Names:

Acre Fino (Peru; EGG); Árbol del Caucho (Sp.; USN); Arbre de Para (Fr.; USN); Caoutchouc (Fr.; USN); Caucho (Dom.; Ven.; AVP); Caucho Bravo (Ven.; AVP); Caucho de Para (Cuba; AVP); Cauchotero de Pará (Sp.; USN); Caucho Yapi (Ven.; AVP); Echter Federharzbaum (Ger.; USN); Goma (Bol.; DLZ); Hevea (Eng.; Ger.; USN); Hévéa (Fr.; USN); India Rubber Tree (Eng.; EFS); Jaamira (Peru; EGG); Japu (Peru; EGG); Jebe (Bol.; Sp.; DLZ; USN); Jebe Débil Fino (Peru; DAV; SOU); Kauçuk A aci (Tur.; EFS); Kautschuk (Den.; EFS); Kautschukboom (Ger.; EFS); Llachi (Bol.; Callawaya; DLZ); Maákiñco (Bora; Peru; EGG); Natural Rubber (Eng.; USN); Parakautschukbaum (Ger.; USN); Para Rubber (Eng.; USN); Rubberboom (Dutch; EFS); Rubbertree (Eng.; USN); Seringueira (Brazil; Por.; USN); Seringueira-Branca (Brazil; Por.; USN); Seringueira-Verdadeira (Brazil; Por.; AVP); Sernambi (Peru; EGG); Shiringa (Peru; EGG); Shiringa Legítima (Peru; EGG); Siringa (Bol.; Peru; Sp.; DLZ; EGG; USN); Siringa Legítima (Peru; EGG); Siringa Mapa (Peru; EGG; RAR); Uhtoolla (Peru; EGG). (Nscn).

#### Activities:

Allergenic (1; PUB); Insectifuge (1; WOI).

#### Dosages:

FNFF = !? Suggested that the seeds are edible (EGG), others suggest they be cooked (DAV). I think I'll pass, unless in a survival situation.

#### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed 15 titles alluding to toxicity of this species.

### BELLACO CASPI (*Himatanthus sucuuba* (Spruce ex Müll. Arg.) Woodson) +

#### APOCYNACEAE



#### Illustrations:

fig 120 (DAV)

**Synonyms:**

*Himatanthus lancifolius* (Müll. Arg.) Woodson; *Plumeria floribunda* Müll. Arg.; *P. sucuuba* (Spruce ex Müll. Arg.); *P. tarapotensis* (K. Schum. ex Markgr.); fide (RA2).

**Common Names:**

Agoniada (RA2); Agonium (RA2); Anaguba (RA2); Arapue (RA2); Bashi Pasha (RA2); Bellaco Caspi (Peru; Sp.; LOR; MDD; RA2); Bellaku-Caspi (RA2); Caracucha (RA2); Caracuchu (RA2); Caracuchu Blanco (RA2); Ceneiwe (Woorani; RA2; SAR); Janaguba (Brazil; MPB); Kanraw-Muni (RA2); Mabwa (RA2); Na'aypere (RA2); Na Ay Pe Re (Tikuna; SAR); Platanete (RA2); Platanote (Col.; RA2; SAR); Quina-Mole (RA2); Sanago (RA2); Shipotma (RA2); Socoba (RA2); Succuba-Verdadeira (RA2); Suche (RA2); Sucoba Sanago (RA2); Sucova (RA2); Sucuba (Brazil; MPB; RA2); Sucuuba (Brazil; MPB; RA2); Sucuuba da Amazonia (RA2).

**Activities:**

Analgesic (f1; RA2); Anthelmintic (f; MPB; RA2); Antiarthritic (f; MPB); Anticancer (1; RA2); Antiinflammatory (f1; RA2; X10821061); Antiseptic (f; SAR); Antitumor (f1; RA2); Antiulcer (1; RA2); Aphrodisiac (f; RA2); Astringent (f; RA2); Bactericide (1; RA2); Cicatrizant (1; RA2); Cytotoxic (1; RA2); Depurative (f; RA2); Emmenagogue (f; RA2); Emollient (f; MPB; RA2); Febrifuge (f; MPB; RA2); Fungicide (f1; RA2); Larvicide (f; SAR); Laxative (f; RA2); Leishmanicide (1; X17459622); MAO-B-Inhibitor (1; X8069971); Myorelaxant (1; RA2); Purgative (f; MPB; RA2); Tonic (f; RA2); Vermifuge (f; RA2); Vulnerary (f1; MPB; RA2).

**Indications:**

Abscesses (f; RA2); Arthrosis (f; MPB; RA2); Asthma (f; DAV); Backache (f; RA2); Bacteria (f1; RA2); Blood (f; RA2); Botfly (f; RA2; SAR); Cancer (f1; MPB; RA2); *Candida* (f; RA2); Constipation (f; RA2); Coughs (f; DAV; RA2); Endometriosis (f; RA2); Fever (f; DAV; MPB; RA2); Fracture (f; MPB); Fungicide (f1; RA2); Gastrosis (f; DAV); Hernia (f; DAV); Impotence (f; RA2); Infection (f1; RA2; SAR); Inflammation (f1; RA2; X10821061); *Leishmania* (1; X17459622); Lumbago (f; DAV); Mange (f; RA2); Mycosis (f; RA2); Pain (f1; DAV; RA2); Rheumatism (f; DAV; RA2); Sores (f; RA2; SAR); Stomachache (f; RA2); Tuberculosis (f; DAV); Tumors (f1; DAV; RA2); Ulcers (f; DAV; RA2); Worms (f; DAV; MPB; RA2); Wounds (f1; MPB; RA2; SAR).

**Dosages:**

FNFF = ? Latex poulticed on as antiarthritic, emollient, and vulnerary, or rubbed on botfly bites to suffocate and kill the larvae (SAR). 1 cup bark decoction 2×/day for fever and pain (RA2); 2–4 ml bark tincture 2×/day as bactericide and to cleanse the blood (RA2); 1 g capsule 2–3×/day for cough and inflammation (RA2).

- Amazonians consider as analgesic, anthelmintic, antitumoral, and fungicide, using for back pain, boils, bot-fly bites, fractures, gastritis, hemorrhoids, hernias, lung ailments, stomachache and ulcers, tumors, and wounds (RA2).
- Amazonians use the latex as antiinflammatory (X10821061).
- Ka'apor Indians of Brazilian Amazon take bark decoction for stomachaches, applying topically for dog mange or feed it to sick or underweight dogs (RA2).
- Brazilians consider as analgesic, anthelmintic, antifungal, antiinflammatory, antitumor, aphrodisiac, emmenagogue, emollient, febrifuge, purgative, tonic, vermifuge, and vulnerary, using for anemia, arthritis, asthma, cancer, constipation, cough, digestion, endometriosis, fever, gastrosis, headache, hemorrhoids, high blood pressure, indigestion, inflammation, lymphatic gland diseases, menstrual irregularities, ovarian cysts and inflammation, pain, rashes, rheumatism, stomachache, syphilis tumors, ulcers, uterine fibroids, weakness, and wounds (RA2).



- Ecuadorians use for bot-fly infection (RA2).
- Guyanas use for bot-fly and liver disorders (RA2).
- Karijonas sprinkle powdered bark onto sores and wounds (RA2).
- Peruvians consider as analgesic, antiinflammatory, antitumor, astringent, depurative, febrifuge, laxative, and purgative, using for abscess, arthritis, backache, boils, cancer, fever, gastric ulcers, gastrosis, hernia, inflammation, pain, rash, rheumatism, skin ulcers, sores, tuberculosis, tumors, ulcers, worms, and wounds (RA2).
- Peruvians use to treat cutaneous leishmaniasis (X17459622).
- Shipibo-Conibo Indians take bark decoction for aches, pain, and rheumatism (RA2).
- Shipibo-Conibo Indians use the latex in warm baths for arthritis, inflammation, and pain, or put the latex onto abscesses, skin ulcers, and sores (RA2).
- Tikuna apply fresh latex to wounds as antiseptic (RA2; SAR).
- Waoranis rub latex on bot-fly bites to suffocate and kill the larvae, both in animals and humans (RA2).

#### Downsides:

No toxic data reported at traditional dosages; even when given to pregnant rats there were no reported side effects (RA2). High dosages may be laxative or purgative (RA2).

#### Extracts:

Ethanollic stem bark extract leishmanicidal (IC<sub>50</sub> = 5 µg/ml in amastigotes). The spiro lactone iridoids isoplumericin and plumericin reduced macrophage infection similar to amphotericin B (IC<sub>50</sub> = 0.9 and 1 µM, respectively) (X17459622), and additionally reported to have antibacterial, anticancer, antifungal, and cytotoxic activity (RA2). Two lichen depsides from the bark, confluent acid and 2'-O-methylperlatolic acid, inhibit MAO-B; confluent acid IC<sub>50</sub> = 0.22 µM (X8069971). Bark extract significantly protected rats from induced ulcers and reduced gastric hypersecretion (RA2). Bark cytotoxic *in vitro* to 5 different human cancer cell lines, showed activity against *Bacillus*, *Candida*, *E. coli*, *Mycobacterium phlei*, *Staphylococcus*, and other Gram-positive and Gram-negative bacteria, and was a stronger fungicide than nistatin (RA2). Latex showed analgesic and antiinflammatory activity, even in acute inflammation, largely due to cinnamate compounds found in the latex and bark, and was active against *Bacillus* and *Pseudomonas* (RA2).

### FROG'S FLOWER (*Hippobroma longiflora* (L.) G. Don) X

#### LOBELIACEAE

#### Synonyms:

*Isotoma longiflora* (L.) C. Presl; *Laurentia longiflora* (L.) Endl.; *Lobelia longiflora* L. (basonym); fide (USN).

#### Common Names:

Arrebenta Boi (Brazil; MPB); Arrebenta Boi Cavalo (Brazil; AVP); Arrebenta Caballos (Ma.; JFM); Arrebenta Cavalo (Brazil; AVP); Blanco (Ma.; JFM); Cega Olho (Brazil; MPB); Ciega Ojo (Col.; IED); Cipril (Ma.; JFM); Erva de Leite (Brazil; AVP); Estrellita (Ma.; JFM); Feuilles Crabe (Haiti; AVP); Flor de San Juan (Ma.; JFM); Flor de Sapo (Peru; Sp.; LOR; MDD; RAR; SOU); Frog's Flower (Eng.; DAV); Ginbey (Dor.; AVP); Guibey (Dor.; AHL; AVP); Horse Poison (Ma.; JFM); Inakale (Kuna; IED); Jasmim da Italia (Brazil; AVP; MPB); Jasmim de Cachorro (Brazil; MPB); Jazmincillo (Ma.; JFM); Jazmin de Estrella (Ma.; JFM); Jazmin del Diablo (Ma.; JFM); Lagrimas de San Diego (Mex.; AVP); Lobelia de Barranguilla (Col.; AVP); Luk'sa Tahan (Mex.; AVP); Madam Fate (Eng.; JFM); Mort aux Cabrits (Guad.; AVP); Pensamiento (Ma.; JFM); Quibei (Dor.; AVP); Revienta Caballos (Col.; Cuba;

Peru; SOU); San Carlos (Ma.; JFM); Star Flower (Ma.; JFM); Star-of-Bethlehem (Eng.; JFM; USN); Tibey (Dor.; Pr.; AVP); Tibey Blanco (Ma.; JFM); Veneno (f; JFM).

#### Activities:

Cardioactive (f1; IHB; JFM); Diaphoretic (f; AHL); Expectorant (f; AHL); Narcotic (f; AHL); Poison (1; DAW); Purgative (f; JFM).

#### Indications:

Asthma (f; DAW; JFM; MPB); Bronchosis (f; DAW; JFM); Cancer (f; DAW); Colds (f; JFM); Epilepsy (f; DAW; JFM); Pain (f; JFM); Palpitations (f; SOU); Rabies (f; JFM); Rheumatism (f; DAW; JFM); Snake Bite (f; DAW); Syphilis (f; MPB); Toothache (f; IHB); VD (f; DAW; JFM); Wounds (f; DAW; JFM).

#### Dosages:

FNFF = X

- Jamaicans steep the plant in rum as a liniment for pain, taking a small drink to boot (JFM).
- Yucatanese apply the plant topically on wounds, using also for asthma, bronchosis, epilepsy, rabies, rheumatism, and VD (JFM).

#### Downsides:

Latex said to irritate the eyes (IED). Possibly kills grazing cattle (SOU). Symptoms of poisoning include initial arterial hypertension, then hypotension, polypnea, and convulsions. As of July 2007, the FDA Poisonous Plant Database listed 13 titles alluding to toxicity of this species.

## MANCHINEEL (*Hippomane mancinella* L.) X

### EUPHORBIACEAE

#### Illustrations:

fig 124 (L&W)

#### Synonyms:

*Mancinella venenata* Tuss.

#### Notes:

More poisonous than medicinal, this one, too much resembling a crab apple, has fatally attracted many hungry tropical beachcombers. Recommended antidotes arrowroot (L&W), *Entada scandens* (VOD), and *Jatropha gossypifolia* (VOD).

#### Common Names:

Arbol de la Muerte (Pr.; AVP); Arbre de Mort (Fr.; Fwi.; AVP; KAB; USN); Arbre Poison (Fr.; Guad.; Mart.; AVP; KAB); Arvore da Morte (Por.; AVP); Bois de Lait (Fr.; KAB); Bougoutri (Car.; VOD); Caximduba (Por.; AVP); Common Manchineel (Eng.; AVP); Ficha (Peru; AVP); Figuier (Cayenne; KAB); Figuier Vénéneux (Fr.; KAB); Hinchá Huevos (Mex.; AVP); Hippomane (Haiti; AVP); Limoncillo (Ven.; AVP); Mancenilhéra (Por.; AVP); Manchineal Tree (Eng.; KAB); Manchineel (Bel.; Eng.; Jam.; Pr.; Vi.; AVP; CR2; USN; VOD); Mancinello (It.; AVP); Mancinillier (Fr.; Haiti; AVP); Mancinillier Vénéneux (Fr.; AVP); Manginiel (Dwi.; L&W); Manseliyen (Creole; Haiti; VOD); Manshinellenbaum (Ger.; AVP); Mansiyen (Creole; Haiti; VOD); Manzalinja (Dwi.; L&W); Manzaniglio (It.; AVP); Manzanillo (Col.; Cuba; Dor.; Mex.; Pr.; Sp.; AVP; KAB); Manzanillo de Costa (Cuba; AVP); Manzanillo de Playa (Cr.; Ven.; AVP); Manzarillo (Sp.; USN); Manzenillerbaum (Ger.; KAB); Maximilien (Haiti; AVP); Noyer Vénéneux (Fr.; KAB); Penaihva (Par.; JLH); Peripeniche (Cuba; AVP); Pinipen-

iche (Cuba; AVP); Poison Guava (Eng.; Vi.; AVP; VOD); Pomme Zombi (Haiti; AVP); Pom Zombi (Creole; Haiti; VOD); Ponm Zombi (Creole; Haiti; VOD). (Nscn).

#### Activities:

Allergenic (1; CRC; X4014959); Anticancer (f; JLH); Carcinogenic (1; X6481361); Cathartic (1; CRC; WOI); Curare (1; CRC; VOD); Dermatitigenic (1; DAW; X4014959); Diaphoretic (f; AHL; CRC); Diarrheic (1; X1781062); Diuretic (f; AHL; CRC; IED; WOI); Emetic (f; CRC); Irritant (1; X6481361); Piscicide (1; CRC); Poison (1; CRC; X1781062); Toxic (1; X4014959); Tumorigenic (1; X6481361); Vermifuge (f; CRC; KAB); Vesicant (1; CRC; JAD).

#### Indications:

Cancer (f; CRC; JLH); Cardiopathy (f; AHL); Corns (f; JLH); Dermatitis (f; CRC); Dropsy (f; AHL; CRC); Edema (f; VOD); Elephantiasis (f; VOD); Hemiplegia (f; VOD); Infection (f; CRC; WOI); Paralysis (f; CRC); Rashes (f; CRC); Scabies (f; CRC); Sores (f; CRC); Syphilis (f; AHL; CRC; VOD); Tetanus (f; AHL; CRC; VOD; WOI); Ulcers (f; JLH); VD (f; AHL; CRC; VOD); Warts (f; CRC; JLH); Worms (f; CRC; DAW; KAB).

#### Dosages:

FNFF = Don't bother XXX!

- Antilleans apply the fruit juice to corns and warts (JLH).
- Cubans apply the fruit juice to corns and warts (JLH); the latex against tetanus (WOI).
- Guianans dangerously worm their children with the milky sap (KAB); 20 drops can kill (WOI).
- Haitians use bark a/o wood decoction for edema, syphilis, and tetanus (VOD).
- Haitians extract the dried leaves to treat elephantiasis and hemiplegia (VOD).
- Paraguayan Tupi paste the latex onto cancerous ulcerations (JLH).

#### Downsides:

Not covered (AHP; KOM; PHR). Ingestion of fruit produced acute poisoning, blistering of oral mucosa, diarrhea, and streptococcal super-infection (X1781062). Fruit and leaf sap cause severe dermatitis of mucous membranes and skin commencing within an hour of contact, with itching and burning followed by bullae or pustulae, erythema, and may cause severe ocular a/o oropharyngeal lesions (X4014959). As of July 2007, the FDA Poisonous Plant Database listed 76 titles alluding to toxicity of this species.

### SANDBOX TREE (*Hura crepitans* L.) X

#### EUPHORBIACEAE



**Illustrations:**

fig 122 (DAV); fig 125 (L&W)

**Synonyms:**

*Hura brasiliensis*; *H. senegalensis*; *H. strepens*; *Sterculia crepitans*; fide (EGG).

**Common Names:**

Acuapa (Col.; AVP); Acuapar (Col.; AVP); Acupar (Ma.; JFM); Ana (Shipibo/Conibo; EGG; MD2); Andá (Amahuaca; MD2); Arbol del Diablo (Mex.; AVP); Árbol de Veneno (Peru; EGG; SOU); Arbre au Diable (Haiti; AVP); Arbre du Diable (Guad.; AVP); Arceira (Peru; EGG; RAR); Areeiro (Por.; MPB); Arenillero (Sp.; TTS); Arenillo (Sp.; TTS); Arracevu (Por.; AVP); Asacú (Peru; RAR); Asi Waga La (Galibi; GMJ); Asiwakara (Ma.; JFM); Assacá (Peru; EGG; RAR); Assacú (Por.; EGG; GMJ); Assaen (Por.; AVP); Assocu (Brazil; RAR); Betsur (Ma.; TTS); Bois de Sable (Haiti; AVP); Bois Diable (Creole; Guy.; Mart.; AVP; GMJ); Bwa Djab (Creole; Haiti; VOD); Camana (Ashaninka; EGG; RAR); Caraja (Culina; EGG; RAR); Cassacu (Por.; AVP); Castanya (Peru; AVP); Castanyeto (Col.; AVP); Catagua (Peru; EGG; RAR); Catahua (Peru; Sp.; EGG; LOR; USN); Catahua Amarillo (Peru; Sp.; EGG; LOR); Catahua Blanca (Peru; Sp.; EGG; LOR); Catahui (Peru; SOU); Catana (Culina; EGG; RAR); Catao (Peru; SOU); Catarra (Peru; EGG; RAR); Cataua (Brazil; L&W); Catura (Peru; EGG); Caturo (Peru; RAR); Ceiba Amarilla (Col.; Sp.; USN); Ceiba Blanca (Ven.; AVP); Ceiba de Leche (Col.; L&W); Ceiba Habillo (Ven.; AVP); Ceiba Lechosa (Sp.; TTS); Ceiba Mil Pesos (Ma.; JFM); Ceiba Purgante (Ma.; JFM); Ceibillo (Ma.; JFM); Ceibo Amarillo (Col.; AVP); Ceibo Blanco (Ven.; RAR); Ceibote (Ma.; JFM); Comána (Nomatsiguenga; EGG; RAR); Haba (Cuba; Mex.; AVP); Haba de Guatemala (Ma.; JFM); Haba de Indio (Mex.; AVP); Haba de San Ignacio (Mex.; AVP); Habilla (Peru; EGG); Habillas (Peru; RAR); Habillo (Cr.; AVP); Hanaa (Amahuaca; EGG; RAR); Hava (Ma.; JFM); Havillo (Ma.; JFM); Hebilla (Peru; EGG; RAR); Hura (Eng.; L&W); Igun (Ma.; JFM); Jabilla (Peru; EGG; RAR); Jabillo (Dor.; Peru; AVP; RAR); Javarillo (Pr.; AVP); Javille (Fr.; AVP); Javillo (Cr.; Cuba; Sp.; AVP; USN); Josho Ana (Shipibo/Conibo; EGG); Kakuda (Eng.; AVP); Kanawga (Piro; Yine; EGG; MD2; RAR); Katawa (Aym.; DLZ); Katawi (Aym.; DLZ); Kirisina (Candoshi?; RAR); Macha (Ma.; JFM); Maempe (Matsigenka; MD2); Maoednte (Amarakaeri; MD2); Milinillo (Sp.; TTS); Mil Pesos (Sp.; TTS); Molinillo (Pr.; L&W); Monkey's Dinner Bell (Eng.; Wi.; AVP; VOD); Monkey Pistol (Vi.; L&W); Noyer d'Amérique (Fr.; AVP); Nune (Pan.; Sp.; AVP); Nwajé d'Amèrik (Creole; Haiti; VOD); Oassucu (Brazil; RAR); Ochoho (Bol.; DLZ; RAR); Ovillo (Sp.; TTS); Papaya de Motelo (Peru; EGG; RAR); Patahua (Peru; EGG; RAR); Pepita (Ma.; JFM); Pet du Diable (Haiti; AVP); Poekoeri (Ma.; JFM); Posentri (Ma.; JFM); Possentrie (Dutch; Sur.; AVP); Possum Wood (Eng.; AVP); Postentrie (Sur.; AVP); Purga (Peru; EGG); Rakuda (Sp.; TTS); Sablier (Creole; Guy.; Haiti; AVP; GMJ); Sablier Elastique (Guad.; AVP); Sabliyé (Creole; Haiti; VOD); Sacha Saliman (Que.; DLZ); Salvadera (Peru; EGG); Salvadera (Col.; Cuba; Peru; AVP; EGG; RAR); Sandbox Tree (Eng.; Jam.; AVP; CR2; USN; VOD); Sandglass (Eng.; AVP); Sanduhr (Ger.; AVP); Seda Blanca (Dor.; AVP); Shi'be (Ese'èja; MD2); Soliman (Ma.; JFM); Solimon Qoqa (Aym.; DLZ); Solimon Sacha (Que.; DLZ); Tenway (Palikur; GMJ); Tetereta (Guat.; AVP); Tronador (Pan.; Sp.; AVP); Trovador (Col.; AVP); Tsu-Kra (Ma.; JFM); Turu (Cashibo; EGG; RAR); Uacasu (Brazil; MPB); Ui (Sp.; TTS); Ussacu (Por.; AVP); Wachiva (Tikuna; SAR); Warajoewa (Ma.; JFM); Wasaku (Wayäpi; GMJ); White Cedar (Ma.; JFM); Zandkokerboom (Dutch; Dwi.; AVP). (Nscn).

**Activities:**

Allergenic (f1; X11974592); Analgesic (f; CRC; EGG; RAR); Anthelmintic (f; EGG; MPB); Antiasthmatic (f; RAR); Antidote (f; CRC); Aperient (f; CRC); Canicide (f; CRC); Carcinogen (f; CRC); Caustic (f; EGG; RAR); Curare (f; CRC); Dentifuge (f; CRC); Dermatitigenic (1; X11974592); Emetic (f; CRC; EGG; VOD); Hemagglutinator (1; X6661180; X6968224); Hydragogue (f; MPB);

Immunostimulant (1; CRC); Insecticide (f; CRC); Insectifuge (1; IED); Irritant (1; X11974592); Laxative (f; DAV; VOD); Mitogenic (1; CRC; JFM; X1122556; X6661180; X6968224); Piscicide (1; CRC); Poison (1; CRC); Purgative (f; CRC; DLZ; EGG; VOD); Ribosome-Inactivator (1; X6667259); Rubefacient (f; MPB); Vermifuge (f; JFM); Vulnerary (f; VOD).

### Indications:

Abscesses (f; EGG; RAR; VOD); Amebiasis (f; EGG; RAR); Arthrosis (f; AHL); Asthma (f; DLZ; EGG; RAR); Boils (f; CRC); Caries (f; EGG; MD2; RAR); Constipation (f; DAV; VOD); Dermatositis (f; CRC; MD2); Diarrhea (f; EGG; RAR); Elephantiasis (f; CRC; MPB); Fungus (f; MD2); Hanseniasis (f; MPB); Headache (f; JFM); Infection (f; MD2); Leprosy (f; CRC; EGG; MPB; RAR; VOD); Lymphangina (f; EGG; RAR); Migraine (f; VOD); Myalgia (f; CRC; JFM); Neuralgia (f; CRC); Pain (f; AHL; CRC; EGG; VOD); Rheumatism (f; AHL; CRC; EGG; MD2; RAR; VOD); Snake Bite (f; EGG; MD2; RAR); Sores (f; CRC; MPB); Sprains (f; VOD); Stings (ray) (f; EGG); Swelling (f; EGG; MD2; RAR); Toothache (f; RAR); Trauma (f; VOD); Tumors (f; RAR); Worms (f; EGG; JFM; MPB); Wounds (f; VOD).

### Dosages:

FNFF = X. Bark decoction in bath for analgesia (RAR); to treat leprosy (JFM). 2–3 seed/purge (JFM).

- Amazonians report the fermented latex is a dangerous fish poison said to kill anaconda (SAR).
- Bolivians smoke the leaves for asthma (DLZ).
- Haitians apply boiled or warm leaves to abscesses and rheumatism (VOD).
- Haitians apply the latex to abscesses, even leprosy (VOD).
- Haitians compress the leaves on migraine and trauma (VOD).
- Haitians use the leaves for rheumatic pain (AHL).
- Peruvians boil resin and take 1 spoon with sugar for worms in adults (EGG).
- Peruvians place the resin in carious teeth to make them fall out (EGG).
- Peruvians suggest boiling 4 spoons latex with tobacco to plaster on snake bite and tumors (EGG).
- Piro of Peru use resin to hasten the loss of carious and aching teeth (RAR).

### Downsides:

Not covered (AHP; KOM; PHR). Seeds, though purgative (dose 2 seed), are too toxic to use (MPB). Latex causes inflammation or eruption, very irritating to eyes, sometimes causing blindness (L&W). As of July 2007, the FDA Poisonous Plant Database listed 53 titles alluding to toxicity of this species.

### Extracts:

A lectin from the latex and seeds showed haemagglutinating activity, is mitogenic to human T-, but not to B-, lymphocytes, and inhibits protein synthesis (X6661180; X6968224). The compound hurin, from the seed, is a potent lymphocyte mitogen (X1122556).

## BRAZILIAN COPAL (*Hymenaea courbaril* L.) ++

### CAESALPINIACEAE

### Illustrations:

fig 76 (L&W)

### Synonyms:

*Hymenaea animifera* Stokes; *H. candolleana* HBK; *H. resinifera* Salisb.; *H. retusa* Willd ex Hayne; fide (MPG).

**Common Names:**

Abati Tembary (Par.; AVP); Algarrobillo (Fr.; Guy.; AVP); Algarrobo (Dor.; Pan.; Peru; Sal.; Sp.; Ven.; LOR; MDD); Algarrobo de las Antillas (Cuba; AVP; L&W); Amami-Gum (Eng.; USN); Ámbar Blanco (Peru; EGG; SOU); Anime Tendre (Por.; AVP); Azúcar Huayo (Peru; Sp.; EGG; LOR; MDD; RAR); Brazilian Copal (Eng.; Scn.; AH2; USN); Broken Ridge Locust (Bel.; BNA); Caca Chien (Creole; Guy.; GMJ); Caguairán (Cuba; JFM; L&W); Caouroubali (Br. Guy.; AVP); Caroubier de la Guyane (Fr.; USN); Caroubier de la Inde (Fr.; AVP); Cayenne Copal (Eng.; RAI); Cimiri (Br. Guy.; AVP); Copal (Ecu.; Sp.; AVP; USN); Copal Americano (Peru; Por.; AVP; RAR); Copal Caspi (Peru; EGG; SOU); Copal du Bresil (Fr.; Guy.; AVP; GMJ); Copalier (Fr. Guy.; AVP); Copalillo (Nic.; AVP); Copal Zumpa (Amahuaca; RAR); Copinol (Sal.; AVP); Corobore (Ven.; AVP; L&W); Courbaril (Fr.; Haiti; Mart.; Ocn.; AH2; AVP; RAI; USN; VOD); Cuapinol (Cr.; AVP); Curbaril (Cuba; Peru; Sp.; AVP; RyM; USN); Demarara Copal (Eng.; RAI); Goma Animie (Ma.; JFM); Gomme Animee (Haiti; AVP; RAI; VOD); Gonm Animée (Creole; Haiti; VOD); Guanipole (Ma.; RAI); Guapinol (Bel.; Col.; Mex.; Sp.; BNA; L&W; USN); Heuschreckenbaum (Ger.; USN); Huarana (Peru; EGG; SOU); Incienso de la Tierra (Ma.; JFM); Itaiba (Bol.; Chiriguano; DLZ); Jaku Huayaka (Ma.; JFM); Jassai (Ma.; JFM); Jatahy (Ma.; JFM); Jatahy Jatoba (Por.; AVP); Jataí (Brazil; MPB; RAI; USN); Jataí Açu (Brazil; AVP); Jataiba (Brazil; AVP); Jatobá (Brazil; Ocn.; AH2; L&W; USN); Jutahy (Brazil; L&W); Jutáí (Brazil; USN); Jutáí Açu (Brazil; MPB); Jutaíca (Brazil; JFM; MPB); Jutaícicu (Brazil; MPB); Jutáí de Várzea (Brazil; RAR); Limpiadentes (Hon.; AVP); Locus (Sur.; L&W); Locust (Bel.; Dutch; Vi.; AVP; BNA; L&W); Locust Tree (Pr.; AVP); Loksi (Sur.; AVP; L&W; RAI); Lokustbaum (Ger.; AVP); Lumberjack's Tea (Eng.; Ocn.; AH2); Nazareno (Col.; AVP; L&W); Nere (Mex.; Tarasca; AVP; MAX); Oriplaquios (Chiquitano; DLZ); Pacay (Guat.; AVP); Palito Colorado (Hon.; AVP); Paquio (Sp.; USN); Pois Confiture (Haiti; AVP; RAI); Pwa Konfity (Creole; Haiti; VOD); Quebra Hacha (Ma.; JFM); Resine Animee (Fr.; Guad.; USN); Rode Locus (Sur.; L&W); Simigl (Palikur; GMJ); Simir (Palikur; GMJ); Simirie (Sur.; AVP; L&W); South American Copal (Bel.; BNA; USN); South American Locust (Eng.; USN); Stinking Toe (Eng.; Jam.; Trin.; AVP; L&W; VOD); Succino Criollo (Ma.; JFM); Succino del Pais (Ma.; JFM); Surixkra (Cr.; AVP); Tamacana (Culina; EGG; RAR); Tema (Cr.; AVP); Tídibu Chagágaru (Garifuna; Nic.); West Indian-Locust (Eng.; USN; VOD); Yita'i (Wayãpi; GMJ); Yutahy (Por.; AVP); Zumpa (Amahuaca; EGG).

**Activities:**

Analgesic (f; IED); Antifeedant (f1; EGG); Antiinflammatory (1; RAI; X10715848); Antioxidant (1; RAI); Antiradicular (1; RAI); Antirheumatic (f; MPG); Antiseptic (f1; DAW; RAI); Antispasmodic (f; MPG); Antitumor (1; JNP65:11; RAI); Antitussive (f1; RAI; RAR); Astringent (f; MPB; RAR); Bactericide (1; MPG; RAI); Balsamic (f; MPB); Bechic (f; MPB); Candidicide (1; MPG; RAI); Carminative (f; VOD); CNS-Depressant (f; VOD); Cytotoxic (1; JNP65:11); Decongestant (f; RAI); Depurative (f; GMJ); Digestive (f; RAI); Diuretic (f; MPB; RAI); Expectorant (f; IED); Febrifuge (f; GMJ); Fungicide (f1; DAW; MPG; RAI); Hemostat (f; EGG; RAR); Hepatoprotective (f; RAI); Hypoglycemic (1; MPG; RAI); Insectifuge (f1; EGG); Insulinogenic (1; MPG); Laxative (f; DAW; RAI); 5-Lipoxygenase-Inhibitor (1; X10715848); Molluscicide (1; RAI); Orexigenic (f; IED); Pectoral (f; MPB); Purgative (f; DAW; VOD); Secretolytic (f; RAI); Sedative (f; DAW; VOD); Stomachic (f; IED); Sudorific (f; MPG); Tonic (f; MPB); Vermifuge (f; DAW; MPB; RAI; VOD); Vulnerary (f; RAI).

**Indications:**

Anemia (f; MPB); Anorexia (f; IED; MPG); Arthritis (f; DAW; VOD); Asthma (f; DAW; MPG; RAI; VOD); Athlete's Foot (f; DAW; RAI); *Bacillus* (1; MPG; RAI); Bacteria (1; MPG); Beriberi (f; RAI); Bleeding (f; RAI; RAR); Bleorrhagia (f; DAW; IED; MPB); Bronchitis (f; IED; MPB; RAI; VOD); Bruises (f; DAW; VOD); Bursitis (f; RAI); Cancer

(1; JNP65:11); *Candida* (1; MPG); Cardiopathy (f; RAI); Catarrh (f; DAW); Colic (f; RAI); Coughs (f; DAV; RAI; SOU; VOD); Cramps (f; VOD); Cystosis (f; DAV; RAI; RAR); Dermatitis (f; MPB; RAI); Diabetes (f1; MPG; RAI); Diarrhea (f; DAW; MPG; RAI); Dysentery (f; GMJ; RAI); Dysmenorrhea (f; RAI); Dyspepsia (f; IED; RAI; VOD); Emphysema (f; DAW; RAI; VOD); Enterosis (f; DAW; RAI); *Escherichia* (1; MPG; RAI); Fatigue (f; RAI); Fever (f; GMJ; RAI); Fracture (f; DAW; JFM; RAI); Fungus (f1; DAV; MPG); Gas (f; RAI; VOD); Gastrosis (f; DAW; GMJ; JFM; RAI); Headache (f; DAW); Hematuria (f; MPG; RAI); Hemoptysis (f; RAI); Hepatosis (f; DAV; RAR); High Blood Pressure (f; JFM); Hypoglycemia (f; RAI); Hysteria (f; JFM); Infection (f1; MPG; RAI); Inflammation (1; X10715848); Laryngitis (f; IED); Malaria (f; DAW; JFM; RAI); Metrorrhagia (f; RAI); Myalgia (f; VOD); Mycosis (f1; DAV; MPG; RAI); Nephrosis (f; DAW; MPG; VOD); Oliguria (f; RAI); Onychosis (1; RAI); Ophthalmia (f; RAI); Orchosis (f; RAI); Pain (f; IED; MPG; VOD); Prostatitis (f; DAV; MPB; RAR); *Pseudomonas* (1; MPG; RAI); Pulmonosis (f; DAW); Respirosis (f; DAW; RAI); Rheumatism (f; IED; JFM; VOD); Sores (f; DAW; VOD); Spasms (f; DAW); *Staphylococcus* (1; MPG); Stomach (f; DAW); Stomachache (f; MPG); Stomatosis (f; DAW; MPG; RAI); Strangury (f; MPB); Tuberculosis (f; DAV; RAI; RAR; SOU); Ulcers (f; DAW; JFM); VD (f; DAW; MAX); Worms (f; DAW; JFM; VOD); Wounds (f; VOD); Yeast (1; MPG; RAI).

### Dosages:

FNFF = ! Seeds edible (RAR), or more probably the nutritious pulp around the seeds eaten as, e.g., in Costa Rica, Panama, and Peru (EGG; IED; MPG). Sweet pulp around the seeds is eaten out of hand, like candy, or in custards or unfermented or fermented beverages or pepperpots (FAC; TAN). 0.5–1 cup bark tea 1–3×/day (RAI); 1–3 ml bark tincture 2×/day (RAI).

- Brazilians use sap from bore holes in trunk for anemia, blennorrhagia, bronchosis, cough, cystitis, and prostatitis (IED; MPB).
- Colombians use liquid bark extract for blood pressure and hematuria (MPG).
- Costa Ricans take fruit decoction for high blood pressure and rheumatism (JFM), leaf decoction for diarrhea and stomachache (MPG).
- Guatemalans take bark decoction for worms (JFM).
- Haitians apply powdered resin or liniment to arthritis, bruises, cramps, myalgia, rheumatism, sores, and wounds, also using plant for asthma, catarrh, constipation, diarrhea, emphysema, enterosis, headache, infection, nephrosis, respirosis, spasms, and stomachache (RAI; VOD).
- Haitians tincture the resin as CNS-depressant and sedative, for asthma, bronchitis, cough, emphysema, nephralgia, and rheumatism (VOD).
- Haitians use bark infusion or decoction as laxative or purgative (VOD).
- Hondurans use the bark as a substitute for quinine (JFM).
- Mexicans inhale fumes of burning resin for asthma and hysteria, using plant for catarrh, rheumatism, sores, and VD (JFM; RAI).
- Panamanians take the bark tea for rheumatic pain, also using plant for asthma, diabetes, diarrhea, gastrosis, hypoglycemia, and oral ulcers (IED; RAI).
- Peruvians use for cough, cystitis, diarrhea, hepatitis, and prostatitis (RAI).
- Surinamese take bark decoction for diarrhea and dysentery (JFM).
- Venezuelans take bark decoction for chest ailments, diarrhea, dysentery, flu, and gastric ulcers, also using the plant for fractures, lung problems, and wounds (JFM; RAI).

### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed five titles alluding to toxicity of this species.

**PARAMO CHICORY (*Hypochaeris sessiliflora* Kunth) ++****ASTERACEAE****Synonyms:**

*Wernera glandulosa* Wedd.

**Notes:**

Paramo species from Venezuela to Bolivia, reported ethnobotanically from Peru (EGG) but not taxonomically reconfirmed (BAZ). Preferred spelling is *Hypochaeris*, not *Hypochoeris* (USN).

**Common Names:**

Achicoria (Col.; Sp.; USN); Achicoria de Páramo (Sp.; Ven.; MPG); Ayaj Pilli (Que.; DLZ); Chicoria Amarga (Peru; Sp.; EGG); Chicoria Amarilla (Sp.; Ven.; MPG); Chikku Chikku (Aym.; Peru; USN); Jayac Pilli (Peru; EGG); Paramo Chicory (Eng.; JAD); Q'awsillu (Aym.; Bol.; DLZ); Seq'elayu (Aym.; Bol.; DLZ).

**Activities:**

Antibilious (f; DLZ; EGG); Antimalarial (f; DLZ); Depurative (f; MPG); Laxative (f; MPG); Purgative (f; MPG); Refrigerant (f; MPG); Sudorific (f; MPG).

**Indications:**

Biliousness (f; DLZ; EGG); Constipation (f; MPG); Fever (f; MPG); Hepatosis (f; EGG); Malaria (f; DLZ; MPG).

**Dosages:**

FNFF = ! Venezuelans eat leaves in salads, like chicory. Bolivians chew the latex like chewing gum (DLZ; MPG)

- Bolivians regard the decoction as antibilious and antimalarial (DLZ).
- Peruvians use the plant as antibilious in liver problems (EGG).
- Venezuelans use the plant as depurative, laxative, purgative, refrigerant, sudorific, and for malaria (MPG).

**KNOBWEED (*Hyptis capitata* Jacq.) ++****LAMIACEAE****Common Names:**

Bachelor's Button (Eng.; JFM); Biojo (Cr.; AVP); Blero (Ma.; JFM); Boletto (Ma.; JFM); Boton Negro (Ma.; JFM); Bouton Blanc (Ma.; JFM); Cadillo Cabezon (Peru; Sp.; LOR); Caesar Obeah (Ma.; JFM); Cartagena Amarillo (Ma.; JFM); Chibola (Ma.; JFM); Chivola (Ma.; JFM); Churrite (Cr.; AVP); Coquita (Cr.; AVP); Cordon de Fraile (Ma.; JFM); Degonfle (Ma.; JFM); Herbe Cotronelle (Ma.; JFM); Hortelã (Brazil; Por.; USN); Ironwort (Eng.; JFM); Knobweed (Eng.; Aust.; USN); Marubio Boton (Ma.; JFM); Mejorana (Ma.; JFM); Melisse (Ma.; JFM); Melisse a Boutones (Guad.; AVP); Melisse a Tete (Ma.; JFM); Melisse Globuleuse (Guad.; AVP); Melisse Indiene (Guad.; AVP); Noha Bianyono (Kofan; SAR); Oregano (Dor.; AHL); Oregano de Monte (Sp.; JFM); Pelotilla (Ma.; JFM); Petite Bombe (Ma.; JFM); Pompons Blanc (Ma.; JFM); San Dieguillo (Cuba; AVP); Suspiro de Monte (Ma.; JFM); Ti Pompons (Ma.; JFM); Wild Bachelor's Buttons (Ma.; JFM); Wild Caesar Obeah (Ma.; JFM); Wild Hops (Ma.; JFM); Z'herbe a Bouton (Ma.; JFM).



**Activities:**

Antihemorrhagic (1; X11025161); AntiHIV (1; JNP61:1090; X9748372); Antioxidant (1; DAV); Antiviral (1; DAV); Cytotoxic (1; X3222376); Stimulant (f; JFM); Sudorific (f; AHL); Tonic (f; JFM).

**Indications:**

Asthma (f; DAV); Colds (f; DAV); Bleeding (1; X11025161); Conjunctivitis (f; JFM); Constipation (f; JFM); Coughs (f; AHL); Diarrhea (f; JFM; SAR); Dyspepsia (f; JFM); Edema (f; JFM); Enterosis (f; JFM); Fever (f; AHL); Fungus (f; DAV); Gastrosis (f; JFM); Hepatosis (f; JFM); HIV (1; JNP61:1090; X9748372); Infection (f1; DAV; JNP61:1090); Malaria (f; JFM); Mycosis (f; DAV); Pulmonosis (f; AHL); Rheumatism (f; AHL); Snake Bite (f1; X11025161); Stomachache (f; JFM); Sunstroke (f; JFM); Swelling (f; JFM); Toothache (f; JFM); Viruses (1; DAV; JNP61:1090).

**Dosages:**

FNFF = ? Other species used as a nibble or in teas (FAC). Floral tea for dyspepsia and stomachache (JFM).

- Salvadorans drink decoction as a stimulant tonic, and bathe in it for bowel and liver obstructions, malaria, and swollen legs (JFM).
- Secoya take a cold infusion for "black diarrhea" (SAR).
- Trinidadans drink the decoction for constipation and paradoxically diarrhea and dyspepsia (JFM).

**Extracts:**

Leaf, branch, and stem extract had moderate neutralizing ability against the hemorrhagic effect of *Bothrops atrox* venom at doses up to 4 mg/mouse (X11025161). Oleanolic acid from the whole plant inhibited HIV-1 replication (EC<sub>50</sub> = 1.7 µg/ml) and cell growth (IC<sub>50</sub> = 21.8 µg/ml), and pomolic acid was also antiHIV (EC<sub>50</sub> 1.4 µg/ml), as well as ursolic acid (EC<sub>50</sub> = 2.0 µg/ml) though it also shows toxicity (IC<sub>50</sub> = 6.5 µg/ml) (X9748372).

**WILD BASIL (*Hyptis mutabilis* (Rich.) Briq.) ++****LAMIACEAE****Synonyms:**

*Nepeta mutabilis* Rich. (basionym); fide (USN).

**Common Names:**

Alafavaca de Cabloco (Brazil; MPB); Alafavacao (Brazil; MPB); Albaca Cimarrona (Peru; Sp.; LOR; MDD); Barin Rao (Peru; Sp.; LOR); Mangericao (Brazil; MPB); Matapasto (Peru; SOU); Oreja Micuna (Peru; RAR); Oveja Micuna (Peru; SOU); Radie Crise (Creole; Guy.; GMJ); Sambacaita (Brazil; MPB); Sambacao (Brazil; MPB); Sambacuite (Brazil; MPB); Sambaite (Brazil; MPB); Soro Sacha (Peru; SOU); Yunka Jeq'ekuma (Que.; DLZ).

**Activities:**

Abortifacient (f; DAV); Carminative (f; DLZ; MPB); Febrifuge (f; DAV); Sedative (f; DAV); Stomachic (f; MPB); Sudorific (f; DLZ); Tonic (f; MPB); Vermifuge (f; DAV).

**Indications:**

Corneosis (f; MPB); Fever (f; DAV); Gas (f; DLZ; MPB); Insomnia (f; DAV); Laryngosis (f; DLZ); Ophthalmia (f; MPB); Sores (f; MPB); Stings (f; MPB); Worms (f; DAV).

**Dosages:**

FNFF = ? Other species used as a nibble or in teas (FAC).

- Brazilians uses the plant juice to remove corneal opacities (MPB).

**JOHN CHARLES (*Hyptis verticillata* Jacq.) ++****LAMIACEAE****Notes:**

Users of the book may be puzzled by the scoring system, but we can now ask the computer which herbs in our database for a given ailment have the highest efficacy score (nothing but folklore (= f), highest safety score, and the highest food pharmacy score (i.e., is recognized) as a food as well as a medicine. John Charles didn't score well on that one either. But none of my plants for uterine fibroids did. I regard it as safe as coffee. Hence I myself would try it were I suffering uterine fibroids.

Roig y Mesa (1945) says that all the aromatic species he lists have the same medicinal properties (*H. capitata*, *H. pectinata*, *H. suaveolens*, *alo H. verticillata*), so JTR entries in this account may apply to any of those species.

**Common Names:**

Baríorúuma (Garifuna; Nic.; IED); Barrehorno (Ma.; JFM); Canella de Mula (Cr.; AVP; JFM); Coje Mundo (Cuba; JFM; JTR); Escobilla (Nic.; USN); Grand Baume (Sp.; USN); Herbe au Diable (Haiti; AVP); Herbe Cyclone (Haiti; AVP); Herbe Volcan (Wi.; USN); Hierba de Zorra (Ma.; JFM); Hierba Martíín (Bel.; Sp.; AAB; JFM); Hoja de Matin (Wi.; USN); Jardineráá (Cuba; JTR); John Charles (Bel.; Eng.; AAB; CR2; USN); John Charles-Weed (Bel.; USN); Juanilama Mocha (Cr.; AVP); Malcasáá Grande (Dor.; AHL); Malcasada Grande (Dor.; AHL); Malva Apestosa (Cuba; AVP); Mamajuana (Dor.; AVP); Maman Houane (Haiti; AVP); Mastranzo (Dor.; Guy.; AHL; JTR); Mastuerzo (Dor.; AVP); Oja Matin (Sp.; USN); Oréégano Cimmaróón (Cuba; JTR); Paleca (Pan.; IED); Raguet Maringuin (Ma.; JFM); Verbena (Ma.; JFM); Wahiwan Saika (Ulwa; ULW); Wild Basilic (Wi.; USN); Z'Herbe Bourrique (Haiti; AVP). Nscn.

**Activities:**

Analgesic (f; AHL; ULW); Anticancer (1; AAB); Antidote (hippomane) (f; AAB); Antifertility (1; X7576456); Antileukemic (1; AAB); Antiprostaglandin (1; X7617764); Antisecretory (1; X7617764); Antiseptic (1; MPG); Aphrodisiac (f; JFM; MPG); Astringent (f; JFM); Bactericide (1; MPG); Bechic (f; JTR); Candidicide (1; MPG); Carminative (f; JTR); Cytotoxic (1; AAB); Depurative (f; JTR); Emmenagogue (f; AHL; DAW); Febrifuge (f; JTR); Laxative (f; JFM); Molluscicide (1; AAB); Pectoral (f; AHL; JTR); Pediculifuge (1; JFM; MPG); Secretagogue (f; JFM); Sedative (f; AHL; DAW); Stimulant (f; JTR); Stomachic (f; JTR); Tranquilizer (f; AHL); Vermifuge (f; JTR).

**Indications:**

Arthrosis (f; MPG); Asthma (f; AAB); Backache (f; MPG); Bacteria (1; MPG); Bleeding (f; MPG); Bone Ache (f; MPG); Bronchitis (f; AAB); Cancer (1; AAB; MPG); Carbuncles (f; JTR); Childbirth (f; AAB); Colds (f; AAB; JFM); Colic (f; JFM; MPG); Coughs (f; AAB); Dandruff (f; IED); Dermatitis (f; AAB; IED; ULW); Dyspepsia (f1; JFM; MPG; TRA); Enteralgia (f; MPG); Enterosis (f; JTR); Epilepsy (f; IED); Fever (f; AAB; MPG); Fibroids (f; AAB); Fungus (f; IED); Gastrosis (f; AAB; MPG); Gout (f; JTR); Headache (f; AHL; MPG); Hepatosis (f; JTR); Herpes (f; MPG); High Blood Pressure (f; IED; ULW); Impotence (f; JFM); Infection (f1; ULW; X7617764); Infertility (f; IED); Itch (f; IED; JFM); Leukemia (1; AAB; MPG); Malaise (f; AAB); Malaria (f; JTR); Mucososis (f; AAB); Mycosis (f; IED); Nephrosis (f; JTR); Pain (f; AHL; IED; MPG; ULW); Pulmonosis (f; IED); Rashes (f; IED); Respirosis (f; IED; ULW); Rheumatism (f; IED; JFM; JTR); Scabies (f; IED); Sores (f; IED); Spasms (f; DAW); *Staphylococcus* (1; MPG); Stings (f; DAW; JFM); Stomachache (f1; JFM; MPG; TRA); Tonsilosis (f; AAB); Toothache (f; MPG); Tumors (1; AAB); Uterosis (f; AAB); Viruses (f; MPG); Worms (f; JTR); Wounds (f; JFM; MPG); Yeast (1; MPG).

**Dosages:**

FNFF = ?. Other species used as a nibble or in teas (FAC).

- Belizeans add this to many of their medicines to potentiate them (AAB).
- Belizeans sip tea (handful of branches with leaves in 3 cups water 20 min)  $\frac{1}{3}$  cup at intervals for asthma, bronchosis, cold, cough, fever, mucus abnormalities, and uterine fibroids (AAB).
- Belizeans take decoction (handful of root a/o leaf boiled 10 min in 3 cups water), 1 cup warmed before each meal, for distress or pain after childbirth (AAB).
- Costa Ricans take internally for colic (JFM).
- Cubans take the decoction or tea of the flowering shoots as bechic, carminative, pectoral, stimulant, and stomachic (JTR).
- Dominicans, believing the leaves antispasmodic, emmenagogue, pectoral, sedative and tranquilizer, compress them on the temple in headache (AHL).
- Hondurans put crushed plants in hen nests to repel lice (JFM).
- Jamaicans prefer dry to fresh plant in their cold remedies (JFM).
- Nicaraguan Garifuna use decoction or tea, orally or topically, for aches and pains, high blood pressure, infection, respiratory-pulmonary disorders, and skin rashes and sores (IED).
- Panamanians suggest the tea for dyspepsia, itch, rheumatism, and stings (IED; JFM).
- Salvadorans use plant decoction on dermatosis, itch, rheumatism, and stings (JFM).

**Extracts:**

Reportedly contains the lignan podophyllotoxin (AAB).

**GUAYUSA (*Ilex guayusa* Loes.) ++**  
**AQUIFOLIACEAE**

**Illustrations:**

fig 124 (DAV); p 80 (SAR)

**Common Names:**

Aguayusa (Ecu.; MPG); Guanyusa (Ecu.; MPG); Guayusa (Col.; Ecu.; SAR; USN); Huayusa (Peru; EGG); Huayusa de la Altura (Peru; RAR); Huitoc Quiro (Peru; RAR); Vitoc Quiro (Peru; RAR); Waís (Ecu.; Shuar; EB59:275); Wayus (Shuar; MPG); Wayusa (Ecu.; MPG).

**Activities:**

Antidiabetic (1; X2743711); Antiseptic (f; DAV); Antisterility (f; EGG); Antivenereal (f; EGG); Aphrodisiac (f; SAR); Cholagogue (f; DAV); Diaphoretic (f; MPG); Digestive (f; MPG); Diuretic (f; MPG); Emetic (f; EGG; MPG; RAR); Expectorant (f; MPG); Febrifuge (f; EGG); Hallucinogenic (f; MPG); Hypnotic (f; MPG); Hypoglycemic (f; MPG); Laxative (f; MPG); Narcotic (f; EGG; MPG); Purgative (f; MPG; RAR); Sedative (f; SAR); Stimulant (f; EGG; SAR; X7736849); Stomachic (f; MPG); Tonic (f; EGG; MPG).

**Indications:**

Catarrh (f; MPG); Childbirth (f; SAR); Constipation (f; MPG); Diabetes (f1; MPG; X2743711); Dysmenorrhea (f; MPG; SAR); Enterosis (f; MPG); Fever (f; EGG; SAR); Flu (f; MPG); Gastrosis (f; SAR); Hangover (f; SAR); Hepatosis (f; SAR); Impotence (f; SAR); Infection (f; DAV); Insomnia (f; SAR); Malaria (f; SAR); Nervousness (f; SAR); Pain (f; SAR); Rheumatism (f; DAV); Sterility (f; EGG; MPG); Stomachache (f; SAR); Syphilis (f; SAR); VD (f; EGG; SAR).

**Dosages:**

FNFF = ! Leaves locally consumed in stimulant beverages (JAD). Decoction of 4–5 leaves in a liter of water drunk for diabetes (MPG).

- Amazonian Ecuadorians and Peruvians take the tea as a morning stimulant (X1682531).
- Bolivians and Peruvians use the plant as a ritual hallucinogen (MPG).
- Jibaro consider the leaves emetic, hypnotic, narcotic, and purgative (MPG).
- Peruvians take leaf tea as antisterility, antivenereal, emetic, febrifuge, stimulant, and tonic, a stronger tea as narcotic (EGG).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

Caffeine reported at 31,000 ppm and theobromine at 1,200 ppm in the leaves (MPG).

**MATÉ (*Ilex paraguariensis* A. St.-Hil.) ++****AQUIFOLIACEAE****Illustrations:**

p 32 (MPB)

**Notes:**

There are spurious advertising claims maintaining that the plant contains no caffeine. It is well endowed with the usual complement of xanthine alkaloids.

**Common Names:**

Brazilian Tea (Eng.; USN); Caminú (Sa.; RAI); Chá Mate (Brazil; MPB); Congonha (Brazil; Por.; MPB; RAI); Erva Mate (Por.; RAI; USN); Erva Verdadeira (Brazil; Por.; RAI); Erveira (Brazil; Por.; RAI); Hervea (Sa.; RAI); Jesuit's Tea (Eng.; RAI); Ka'a (Par.; MPG); Kali Chaye (Sa.; RAI); Kkiro (Sa.; RAI); Maté (Eng.; Scn.; Sp.; Spain; AH2; CH2; USN; VAD); Mate-teestrauch (Ger.; USN); Paraguayan Tea (Eng.; USN); Paraguay Cay (Eng.; RAI); Paraguay Tea (Eng.; Ocn.; AH2); Saint Bartholomew's Tea (Eng.; RAI); South American Holly (Eng.; RAI); Thé du Paraguay (Fr.; USN); Yerba Maté (Arg.; Eng.; Ocn.; Par.; Sp.; AH2; ARG; USN).

**Activities:**

AGE-Inhibitor (1; RAI; X15894431); Analeptic (2; PIP); Analgesic (1; BGB; CAN; RAI); Anorectic (12; APA; CAN; RAI); Antiaging (f; RAI); Antiatherosclerotic (1; RAI); Antidiabetic (1; RAI); Antidote (nicotine) (f; RAI); Antiinflammatory (1; RAI); Antilipoperoxidant (1; RAI); Antinitration (1; X15878361); Antioxidant (1; RAI); Antiradicular (1; RAI); Antirheumatic (f; BGB; CAN); Aperient (f; CRC); Astringent (f1; CRC; RAI); Bitter (f; CRC; HHB); Carcinogenic (f; APA); Cardioprotective (1; X15869828); Cardiotonic (f1; RAI); Chemopreventive (1; X15450404); Choleric (1; RAI); CNS-Stimulant (f12; BGB; CAN; PH2; VAD); Cytotoxic (1; X15769122); Depurative (f1; APA; RAI); Diaphoretic (1; RAI); Digestive (f; APA; RAI); Diuretic (2; APA; KOM; PH2; PIP); Emetic (1; VAD); Ergogenic (f1; RAI); Eupeptic (f; MPG); Glycogenolytic (2; KOM; PH2; PIP; VAD); Hepatotoxic (1; MPG); Hyaluronidase-Inhibitor (1; MPG); Immunostimulant (1; RAI); Laxative (f; BGB; RAI); Lipolytic (f12; APA; KOM; PH2; PIP; RAI; VAD); Lipoxygenase-Inhibitor (1; RAI); MAOI (1; RAI); Memorogenic (f; RAI); Myorelaxant (f; RAI); Narcotic (f; CRC); NO-Inhibitor (1; X15869828); Poison (1; CRC); Positive Chronotropic (2; KOM; PH2; PIP); Positive Inotropic (2; KOM; PH2; PIP); Purgative (f1; CRC; VAD); Stimulant (1; APA; BGB; CRC); Stress (f; RAI); Sudorific (f; CRC; HHB); Thermogenic (1; APA); Thymoleptic (f; BGB; CAN); Tonic (1; BGB; MPG; PH2; RAI); Topoisomerase-Inhibitor (1; X15769122); Vasodilator (1; RAI).

**Indications:**

Addiction (f; RAI); Anemia (f; PH2); Anthrax (f; RAI); Arrhythmia (2; PHR); Arthrosis (f; RAI); Asthenia (f; BGB; VAD); Asthma (1; APA); Bladder Stones (2; PHR); Cancer (1; X15450404); Cardiac Insufficiency (2; PHR); Colds (1; APA); Colic (f; RAI); Constipation (f; RAI); Debility (f1; CRC; PH2; RAI); Depression (f1; BGB; CAN; RAI); Diabetes (f; CRC); Dyspepsia (f; PH2; RAI); Dysuria (2; APA; KOM; PH2; PIP); Edema (f; RAI); Fatigue (f12; APA; PHR; PH2; PIP; RAI); Fever (f; PH2); Flu (1; APA); Gastrosis (f; CRC); Gout (f; RAI); Headache (f1; BGB; CAN; RAI); Heart (f; CRC); Hemorrhoids (f; RAI); High Blood Pressure (f; RAI); Infection (f; PH2); Inflammation (f1; PH2; RAI); Ischemia (1; X15869828); Kidney Stones (2; PHR); Myosis (f; RAI); Nephrosis (f; RAI); Nerve (f; CRC); Neuralgia (f1; CAN; RAI); Neurasthenia (1; CRC; FNF; PH2); Obesity (1; APA; MPG; PH2; RAI; VAD); Oliguria (f; RAI); Pain (f1; BGB; CAN; RAI); Parkinson's (f; RAI); Rheumatism (f; BGB; CAN; CRC; PH2; RAI); Scurvy (f1; CRC; RAI); Sores (f1; PH2; RAI); Spasms (f; RAI); Ulcers (f; PH2); UTIs (2; PHR); Water Retention (2; APA; KOM; PH2; PIP); Withdrawal (f; RAI); Wounds (f; RAI).

**Dosages:**

FNFF = !!! 2.5–5 ml liquid leaf extract (APA; PNC); 2–4 ml liquid leaf extract (1:1 in 25% ethanol) 3×/day (CAN); 1 tsp leaf/cup water (APA; WIC); 2–4 g leaf, or in tea, 3×/day (CAN); 1 g/cup tea (HHB); 1.5 tsp/cup tea; 3 g/day leaf (PH2; PIP).

- Brazilians use as anorectic, CNS-stimulant, digestive, and stimulant, for asthenia, fatigue, heart problems, high blood pressure, muscle weakness, nephrosis, nerve pain, obesity, oliguria, rheumatism, and on anthrax ulcers (RAI).
- Paraguayans use leaf tea as a slimming agent (MPG).
- South Americans use for debility, exhaustion, fatigue, gout, headache, heart problems, memory, muscle weakness, neurasthenia, obesity, rheumatism, scurvy, spasms, and wounds (RAI).

**Downsides:**

Class 2d. CNS-stimulant. Not recommended for excess or prolonged use (they seem to say this about most caffeine-containing plants) (AHP). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). But they designate no dosage! (JAD). Newall, Anderson, and Phillipson (1996) caution that xanthine-containing beverages may cause anxiety, insomnia, palpitations, tremors, and withdrawal headache. Because of the caffeine, consumption should be restricted in pregnancy and lactation, and in hypertensive and cardiac patients. “As with all xanthine-containing beverages, excessive consumption ... by lactating mothers should be avoided.” “Caffeine is excreted in breast milk, but at concentrations too low to represent a hazard to breast-feeding mothers ... The fatal dose of caffeine in man is stated to be 10 g.” (CAN). Veno-occlusive disease has been attributed to over-consumption of maté for years. In Uruguay, where esophageal cancer is major, heavy consumption of maté seemed to elevate relative risks of cancer by “6.5 and 34.6 in men and women, respectively” (ATM; CAN). As of July 2007, the FDA Poisonous Plant Database listed 35 titles alluding to toxicity of this species.

**Extracts:**

Maté alone can reduce the appetite (CAN). Caffeine reduces appetite too, with dozens of reported activities suggesting its potential in asthma, dermatosis, flu, herpes, nausea, obesity, and even viruses. It is a phosphodiesterase inhibitor, like theophylline and theobromine. So is viagra. Theophylline is used in anti-asthma aspirators. Many caffeine activities are shared, perhaps synergistically with theophylline and theobromine; caffeine is reportedly an analgesic-synergist, anti-amnesic, anti-apneic, anti-apoptotic, anti-asthmatic, anti-carcinogenic, anti-cariogenic, anti-dermatitic, anti-emetic, anti-feedant, anti-flu, anti-herpetic, anti-hypotensive, anti-narcotic, anti-obesity, anti-oxidant, anti-rhinitic, anti-serotonergic, anti-tumor, anti-viral, apoptotic, cancer-preventive, a cAMP-phosphodiesterase-inhibitor, cGMP-phosphodiesterase-inhibitor, cardiogenic, catabolic, choleric, CNS-stimulant, diuretic, energizer, ergotamine-enhancer, herbicide, hypertensive, hypoglycemic, insecticide, lipolytic, neurotoxic, phosphodiesterase-inhibitor, respirastimulant, stimulant, teratogenic, vasodilator, and viricide. Caffeine is ana-leptic (200 scu mus), LD<sub>50</sub> = 192 orl hmn, LD<sub>50</sub> = 192 orl rat, LD<sub>50</sub> = 127–1,200 orl mus, LD<sub>50</sub> = 200 orl rat, LD<sub>50</sub> = 247–355 orl rat, LD<sub>50</sub> = 224–246 orl rbt (FNF).

**ANIL INDIGO (*Indigofera suffruticosa* Mill.) +**

**FABACEAE**

**Illustrations:**

fig 171 (IED)

**Synonyms:**

*Anila tinctoria* (L.) Kuntze var. *vera* Kuntze; *Indigofera anil* L.; *I. comezuelo* Moç. & Sessé ex DC.; *I. divariata* Jacq.; *I. drepanocarpa* Berg; *I. guatemala* Lunan; *I. tinctoria* Mill.; *I. uncinata* G. Don; fide (POR; USN).

**Notes:**

Some of the AVP (Arsene, 1971) names apply also (or exclusively) to *Indigofera tinctoria*, regarded by USN as distinct from *I. suffruticosa* (*I. anil*). Arsene (1971) aggregates them.

**Common Names:**

Abgi Gastuet (Cuna; IED); Abugi (Cuna; IED); Angashi (Piro; RAR; SOU); Anil (Brazil; MPB); Añil (Col.; Cuba; Peru; Sp.; Ven.; DAV; JTR; USN); Añil-Añil (Peru; RAR); Añil Cimarrón (Cuba; JTR); Añil Colorado (Ma.; JFM); Añil de Hojas (Cuba; JTR); Añil de Pasto (Ma.; JFM); Anil de Pasto (Ocn.; AH2); Añil de Piedra (Ma.; JFM); Anile (It.; AVP); Anileira (Brazil; MPB); Anileira Verdadeira (Brazil; AVP); Añilillo (Ma.; JFM); Anil Indigo (Eng.; Scn.; AH2; USN); Azilito (Ma.; JFM); Añil Jiquelite (Mex.; JFM; JTR); Añil Montes (Ma.; JFM; JTR); Anil Roxo (Brazil; Por.; AVP); Azul (Dor.; JTR); Azul de Hojas (Ma.; JFM); Azulejo (Dor.; AVP; JTR); Baaba (Sudan; AVP); Barbasco (Ma.; JFM); Caa Chira (Ma.; JFM); Caa-Chiva (Brazil; AVP); Chacuapa Maquin (Peru; SOU); Choh (Ma.; JFM); Digo (Haiti; AVP); Digo Sauvage (Haiti; AHL); Erva Anil (Brazil; Por.; AVP); Feuilles Digo (Haiti; AVP); Gala (Sudan; AVP); Guatemalan Indigo (Eng.; JFM); Huishla (Peru; RAR); Indaco (It.; AVP); Indigo (Eng.; Haiti; Peru; Pr.; AVP; DAV); Indigofera (Por.; AVP); Indigo Mutui (Peru; RAR; SOU); Indigostrauch (Ger.; AVP); Indigotera (Sp.; AVP); Indigotero (Sp.; JFM); Indigotier (Haiti; AVP); Indigotier Argente (Haiti; AVP); Indigo Vraie (Guad.; Mart.; AVP); Indigo Weed (Eng.; JFM); Inigo Shimarron (Ma.; JFM); Jerba di Spantu (Sp.; AVP); Jiguilite (Guat.; JTR); Jiquelite (Cr.; Mex.; AVP); Jiquilite (Cr.; Guat.; Mex.; Sal.; AVP; JTR); K'ithar Tarwi (Que.; DLZ); Llangua (Peru; JFM; SOU); Mahuitli (Ma.; JFM); Markam Gungo (Ma.; JFM); Mutui (Ma.; JFM); Mutui Cube (Peru; RAR; SOU); Mutuy (Peru; RAR; SOU); Platanillo (Bol.; DLZ); Platanito (Ma.; JFM); Platanito de Tinto (Ma.; JFM); Qing Dai (Pin.; AH2); Sacatinta (Ma.; JFM); Subshrub Indigo (Pin.; AH2); Timbo Mirim (Brazil; AVP; MPB); Tinaca Añil (Ma.; JFM); Tinto (Ma.; JFM); West Indian Indigo (Ma.; JFM; JTR); Wild Indigo (Ma.; JFM; JTR); Ye Qing Shu (Pin.; AH2).

**Activities:**

Abortifacient (f; DAW); Analgesic (f; DAW; WOI); Androgenic (1; JFM); Antidote (f; RAR); Antiseptic (1; JFM); Antispasmodic (f; DAV); CNS-Depressant (1; JFM); Depurative (f; EB29:289; IED); Diuretic (f; DAW; WOI); Ecbolic (f; DAW); Emmenagogue (f; JFM); Febrifuge (f; DAV); Insecticide (f; JTR); Mutagenic (1; X1842020); Parasiticide (f; JTR); Pediculicide (f; DAW; DLZ; JTR); Purgative (f1; DAW; JFM); Sedative (f; MPB); Stomachic (f; DAW); Sudorific (f; DAW); Toxic (f1; JFM); Vulnerary (f; DAW).

**Indications:**

Backache (f; EB25:249); Bites (f; DAW); Chorea (f; DAW); Colic (f; DAW); Constipation (f1; JFM); Cramps (f; DAV; IED); Dermatitis (f; JFM; JTR); Dyspepsia (f; DAV); Dysuria (f; DAV); Epilepsy (f; DLZ; IED; JTR); Fever (f; DAV; WOI); Gastrosia (f; RAR); Headache (f; DAW); Herpes (f; AHL; DAW); Infection (f1; DAV; JFM); Inflammation (f; DAW); Insomnia (f; MPB); Insanity (f; DAW); Itch (f; JTR); Jaundice (f; MPB); Lice (f; DLZ); Malaria (f; JTR); Mange (f; JFM); Neurosis (f; DAW); Pain (f; DAW; WOI); Parasites (f; JTR); Pediculosis (f; DAW; DLZ; JFM; JTR); Rheumatism (f; EB25:249); Snake Bite (f; JTR); Sores (f; WOI); Spasms (f; DAV; IED); Stings (f; DAW); Stomachache (f; IHB); Syphilis (f; JTR; WOI); Ulcers (f; DLZ); Urogenitosis (f; WOI); Uterosis (f; EB25:249); VD (f; DAV); Wounds (f; DAV; DAW).

**Dosages:**

FNFF = ?

- Aztecs use seeds for dysuria, the leaves for fever, and the plant for syphilis (JTR; PCS).
- Bolivians use for epilepsy (DLZ).
- Brazilians use for snake bite (JTR).
- Cubans use the root macerate to kill bedbugs, lice, and other parasites (JTR).
- Latinos apply powdered seed a/o root decoction as pediculicide (JFM).
- Mexicans swear by 3–4 g dry plant as an effective antispasmodic in epilepsy (JFM).
- Peruvians apply cream of indigo mixed with vinegar to scorpion bites (DAV).
- Peruvians apply pounded leaves to forehead for fever (DAV).
- Peruvians suggest root decoction to clean septic wounds (DAV).

**Downsides:**

Viewed as toxic to cattle. Toxic constituent alpha-nitropropionic-acid-glucose-ester (MPB). As of July 2007, the FDA Poisonous Plant Database listed 11 titles alluding to toxicity of this species.

## MOONFLOWER (*Ipomoea alba* L.) + CONVOLVULACEAE

**Synonyms:**

*Calonyction aculeatum* (L.) House; *Calonyction album* (L.) House; *Convolvulus aculeatus* L.; *Convolvulus maximus* L. f.; *Ipomoea bona-nox* L.; *I. maxima* (L. f.) G. Don ex Sweet; *I. noctiflora* Griff.; fide (USN).

**Notes:**

Moonvine once blanketed the canopy of a pond apple forest that stretched for 32,000 acres along the southern edge of Lake Okeechobee in Florida. This forest, and the moonvines covering it, were destroyed and replaced by agriculture. A belt of trees and vines 50 miles long and two or more miles wide was eliminated in less than a decade (AUS). For many more interesting historical notes on the beautiful moonvine, see Dan Austin's marvelous *Florida Ethnobotany* (AUS). Many of the more interesting common names below were forwarded to me generously by Dr. Austin.

**Common Names:**

Arooi Kuchubung (Sunda; IHB); Bajugene (Kono; Sierra Leone; HDN); Bejuco de Cuajar Hule (Mex.; AUS); Bejuco de Puerco (Mex.; Pr.; AUS); Bejuco de Tabaco (Sal.; AUS); Bejuco de Vaca (Mex.; Pr.; AUS); Belle de Nuit (Fr.; Wi.; AUS); Buktei (Djerma; Niger; HDN); Chandrakanta (Bom.; WOI); Chandrakanti (Sanskrit; WOI); Cuaja Leche (Mex.; AUS); Dudhiakalmi (Ben.; Hindi; WOI); Dumom (Hausa; HDN); Estrella Vespertina (His.; AUS); Flor de la Y (Cuba; Sp.; Taino; AUS); Flor de Luna (Sp.; AUS); Galán de Noche (Col.; AUS); Gamuza (Chiapas; Mex.; AUS); Garza (Sal.; AUS); Good Night Flower (Eng.; IHB); Guamol (Chiapas; Mex.; AUS); Gulchandni (Bom.; WOI); Gulugubu (Afr.; HDN); Haapolin (Mex; Yucatan; AUS); Huamol (Chiapas; Mex.; AUS); Huchuk (Maya; AUS); Huchuk Ts'aan (Maya; AUS); Kpanja-Humdoi (Kissi; Sierra Leone; HDN); Kpokpo-Hina (Mande; Sierra Leone; HDN); Liseron (JLH); Maanblom (Afrikaan; USN); Mandavalli (Mal.; Sanskrit; WOI); Moonflower (Eng.; AUS; FAC; USN); Moonvine (Eng.; AUS); Nacta (Maya; AUS); Naganamukkori (Tam.; WOI); Naxh (Maya; AUS); Nightbelle (Eng.; Fla.; AUS); Nigua (Mex.; Taino; Ven.; AUS); Oración (Mex.; Yucatan; AUS); Pañal de Niño (Hon.; AUS); Panditivankayya (Tel.; WOI); Piroreta (Maya; AUS); Suput (Maya; AUS); Sutup (Maya; AUS); Tërulak (Java; IHB); Xpeten (Maya; AUS); Xutu (Maya; AUS); Xutub (Maya; AUS); Yue Guang Hua (China; Pinyin; X8370025); Zutub (Maya; AUS).



**Activities:**

Analgesic (1; X9863250); Anorectic (f; AHL); Antiallopecic (f; AUS); Anticancer (f; JLH); Antidote (arsenic) (f; WOI); Antidote (nettle) (f; EB28:11); Antiseptic (1; HDN); Antitumor (f; JLH); Bactericide (1; HDN); Carminative (f; AHL; AUS); Cathartic (f; DAW); Collyrium (f; EB28:11); Curare (1; HDN); Deobstruent (f; WOI); Diuretic (f; WOI); Febrifuge (f; WOI); Insecticide (f; DAW; KAB); Laxative (f; AHL; AUS; EB28:11); Psychoactive (1; X9863250); Purgative (f; DAW; WOI); Toxic (1; UPW); Vulnerary (1; UPW).

**Indications:**

Alopecia (f; AHL; AUS); *Bacillus* (1; HDN); Bacteria (1; HDN); Boils (f; EB28:11); Cancer (f; JLH); Constipation (f; AHL; EB28:11); Dandruff (f; AHL; AUS); Fever (f; DAW; KAB; WOI); Filaria (f; EB28:11); Gas (f; AHL); Guinea Worm (f; KAB); Headache (f; UPW); Infection (1; HDN); *Mycobacterium* (1; HDN); Nausea (f; EB28:11); Pain (1; X9863250); Snake Bite (f; AUS; DEP; KAB); *Staphylococcus* (1; HDN); Stomachache (f; EB28:11); Tuberculosis (1; HDN); Tumors (f; JLH); Wounds (f; EB28:11; UPW).

**Dosages:**

FNFF = ? Young leaves and fleshy calyces or swollen pedicels used as a vegetable; immature seeds reportedly eaten in India; roasted seeds have been used as a substitute for coffee. (AUS; FAC; UPW; WOI).

- Asian Indians suggest the root bark as purgative (WOI).
- Caribs and Guianans poultice the leaves onto tumors (JLH; UPW).
- Early Spaniards regarded the vine as a laxative (AUS).
- Nigerians use the saponiferous leaves as a wash for headache (UPW).
- West Indians regard the plant as antiallopecic, carminative, febrifuge, and laxative, suggesting it to curb falling hair a/o dandruff (AUS).

**Downsides:**

Can cause purging. As of July 2007, the FDA Poisonous Plant Database listed five titles alluding to toxicity of this species.

**Extracts:**

Leaf extracts inhibit *Bacillus subtilis*, *Mycobacterium tuberculosis*, and *Staphylococcus aureus* (HDN). West African material is reported free of hallucinogenic indole alkaloids (UPW). Juice said to kill bedbugs et al. (KAB; WOI);

## SWEET POTATO (*Ipomoea batatas* (L.) Lam.) +++

### CONVOLVULACEAE

**Illustrations:**

fig 175 (IED); pl 663 (KAB)

**Synonyms:**

*Convolvulus batatas* L.

**Notes:**

Long ago I doubted that sweet potato was Native American. Dr. Dan Austin, a specialist in the family Convolvulaceae, and author of *Florida Ethnobotany* (AUS), easily convinced me it was American and really belongs on our Thanksgiving table. But when I saw the huge number of tribal names in De Lucca and Zalles (1992), Rutter (1990), and Soukup (1970), I was even surer still that sweet potato came from America (DLZ; RAR; SOU). Even I said, writing of Panama back in 1972, "Cultivated by the Amerindians long

before the coming of the Europeans, sweet potatoes ... at the time of conquistadores, were present both in Darien and in Veraguas, where the Guaymi were said to offer them to Cerro Nubu” (IED).

Sweet potato has been eyed as an alternative energy source. In India, tops can add up to 10–32 MT/ha, to 77 MT in 3 or 4 cuttings per year. The sweet potato is a valuable raw material for producing alcohol. A hectare of sweet potato can feed more people than a hectare of cereal grains, with less energy input. “The green weight yield per hectare of sweet potato vines is greater than the yield of green corn for silage” ca. 15–50 tons per hectare. Indonesia, already overloaded with oil palms, was planning 2,000 gasohol plants, with the fuel coming from sweet potato, cassava, and sugar cane (HOE). According to Watt (1889–1892), potatoes yield only 30 liters alcohol per 1,000 kg, cf. 380–390 for sweet potato flour. Oats by comparison yield 200–210, barley 220–230, buckwheat 240–250, maize 280–300, rice 320–330 liters per 1,000 kg (DEP). For a discussion of more than 100 energy species, including sweet potato, see my unpublished *Handbook of Energy Species*, which still resides at the website: [http://www.hort.purdue.edu/newcrop/duke\\_energy/dukeindex.html](http://www.hort.purdue.edu/newcrop/duke_energy/dukeindex.html).

### Common Names:

Abordwobanga (Akim; KAB); Age (Cuba; Dor.; Taino; AUS; AVP); Aha (Creek; AUS); Ahe (Choctaw; AUS); Á:hi (Mikasuki; AUS); Ajé (Cuba; Dor.; His.; Peru; Taino; AUS; AVP; EGG; RAR); Ambizo (Betsileo; KAB); Anago (Awuna; KAB); Anagote (Ewe; Krepi; KAB); Anantaraora (Antisianaki; KAB); Apichu (Aym.; Que.; EGG; SOU; USN); Artichaut des Indes (Fr.; KAB); Aruwa (Danuwar; NPM); Ase (His.; Taino; AUS); Asikuma (Ashanti; KAB); Atomo (Ga; Krobo; KAB); Axe (His.; Taino; AUS); Bangao (Banda; KAB); Bataat (Dutch; Sur.; AVP; EFS); Batala (Sin.; KAB; MPI); Batata (It.; Pr.; Sp.; Sri.; Ven.; AVP; EFS; USN); Batata da Illae (Por.; EFS); Batata-da-Terra (Brazil; Por.; USN); Batata Doce (Brazil; Por.; AVP; EFS; KAB; USN); Batate (Ger.; EFS; USN); Batate Trichterwinde (Ger.; NAD); Batatilla (Ven.; AVP); Belena (Betsimisarakaka; KAB); Bíme Mábi (Garifuna; Nic.; IED); Bokala (Betsileo; KAB); Boniato (Col.; Cuba; Sp.; AVP; IED; USN); Botyootyo (Ocaina; SOU); Bwa Patat (Creole; Haiti; VOD); Cááta (Bora; EGG); Camote (Cr.; Mex.; Nahuatl; Pan.; Peru; Pi.; Sal.; Sp.; AVP; IED; KAM; LOR; MDD; RAR); Camote Blanca (Sp.; RAR); Camotli (Mex.; KAB); Cara (Bol.; Chiriguano; DLZ); Cari (Amahuaca; Cashibo; Pano; Shipibo; EGG; RAR; SOU); Cavi (Conibo; EGG; RAR; SOU); Chakarakilangu (Mal.; MPI); Chakuhi (Newari; NPM); Chelagada (Tel.; DEP; KAB; MPI); Chelagade (Ap.; India; SKJ); Chine Alu (Ben.; DEP); Chokeh (Kenaboi; IHB); Cjumara (Peru; EGG; RAR); Coere (Ticuna; SOU); Culiti (Ashaninka; Campa; EGG; RAR; SOU); Cumala Huasca (Peru; EGG; RAR); Cumal Huasca (Peru; RAR); Cumara (Peru; Sp.; EFS; EGG; RAR); Curiti(s) (Antis; Campa; EGG; RAR; SOU); Dam Long (Cam.; KAB); Dankali (Hausa; Kano; KAB); Dukuma (Sokoto; KAB); Fah Foon (Malaya; KAB); Fan Shu (Pin.; DAA); Flor de la Y (Sp.; AUS); Fukum (Nepal; Newari; DEP; KAB); Gagar Lahori (Nasirabad; Sin.; DEP; KAB); Genasu (Kan.; DEP; KAB); Goría Alu (Assam; DEP); Goría Banga (Assam; DEP); Goría Ranga (Assam; DEP); Hage (His.; Taino; AUS); Haisi (Guajira; AUS); Haliti (Arawak; AUS); Hsi Hua Fen (EFS); Hua Fen (China; IHB); Huwi Bolèd (Sunda; IHB); Huwi Mantang (Sunda; IHB); Idáuk (Aguaruna; EGG); Inchi (Aguaruna; EGG; SOU); Jabilla (Cuba; AUS); Jarissi Jabo (Culina; EGG; RAR); Jaya (Mantera; IHB); Jayab (Mantera; IHB); Jemanta (Mosenen; DLZ); Jipalu (Piro; EGG; RAR; SOU); Kanangi (Guj.; KAB; MPI); Kan Chu (China; KAB); Kanda (Oriya; WOI); Kandagranthi (Sanskrit; KAB); Kansho (Japan; TAN); Kan Shu (China; EFS); Kapa Kalenga (Mal.; DEP; KAB; MPI); Kartoffel (Ger.; AVP); Kaswan (Burma; DEP); Katéla (Java; IHB); Katéla Rambat (Java; IHB); Katélo (Sumatra; IHB); Kazwan (Burma; KAB); Kerkalu (Nepal; Parbutia; DEP; KAB); Ketéla (Java; IHB); Khoai Day (Vn.; KAB); Khoai Lang (Vn.; KAB); Kkumara (Aym.; USN); K ladek (Malaya; IHB); K ladi (Malaya; IHB); Klawang (Semang; IHB); K

ledek (Malaya; IHB); K lèdèk (Java; IHB); Kokotino (Twi; KAB); Konong (Kon.; KAB); Kualu (Cuna; IED); Kudaku (Zanfara; KAB); Kugungdugu (Benue; Yola; KAB); Kumara (Nz.; KAB); Kuriti (Matsigenka; EGG; RAR; SOU); Lahar Goi (Chepang; NPM); Lal Alu (Ben.; DEP; MPI); Lal Shakarkand Alu (Ben.; DEP; KAB); Lardak Lahori (Iran; DEP; KAB); Liane Patate (Fwi.; AVP); Man Thet (Thai; IHB); Massekou (Sudan; AVP); M'Bodo (Manenja; KAB); Men Keo (Laos; KAB); Mita Alu (Hindi; DEP); Moniato (Arg.; AVP); Muniato (Dor.; AVP); Myouk Ni (Burma; DEP); Ntormmor (Ashanti; KAB); Nuna (Cherokee; AUS); Open (Mochica; EGG; RAR; SOU); Pai Shu (Japan; TAN); Papa Dulce (Sp.; Ven.; USN); Patata (It.; AVP); Patata Americana (It.; AVP); Patate (Haiti; Réunion; AVP; KAB; VOD); Patate Douce (Fr.; Haiti; USN; VOD); Patat Gwo Bwa (Haiti; VOD); Patat Maby (Haiti; VOD); Patat Samana (Haiti; VOD); Pichiyu (Guayuro; DLZ); Pilau (Sumatra; IHB); Pua (Peru; EGG; RAR); Raga Alu (Ben.; SKJ); Ranga Alu (Assam; Ben.; DEP; KAB); Ratali (Mar.; DEP; KAB); Ratalu (Bom.; Mar.; DEP; MPI); Saantom (Fanti; KAB); Sakaria (Guj.; DEP); Sakar Kenda (San.; DEP; KAB; WOI); Sakarkhand (Nepal; NPM); Sakar Time (Tamang; NPM); Sakkarei Velai Kelangu (Tam.; DEP; MPI); Satsuma Imo (Japan; TAN); Satsuma Yam (Eng.; IHB); Shakarkandi (Hindi; Pun.; DEP; MPI; SKJ); Shakarkandu (Bom.; Urdu; DEP; KAB); Shan Yu (China; EFS); Sila (Beduandi; IHB); Sirllici Patates (Tur.; EFS); Sod (Pangan; IHB); Spanish Potato (Eng.; EFS); S tilo (Sumatra; IHB); Sunununus (Chiquitano; DLZ); Süßkartoffel (Ger.; EFS; USN); Sweet Potato (Eng.; Scn.; AH2; CR2); Syuthani (Majhi; NPM); Téla (Java; IHB); T gak (Kenaboi; IHB); Tigsi (Vis.; KAB); Tila (Besisi; IHB); Tipali (Peru; EGG; RAR); Tonana (Jakun; IHB); Tromanga (Hova; KAB); Truffle Douce (Fr.; NAD); Tubérculo Morado (Peru; EGG); Tuctuca (Aym.; Peru; EGG; RAR; SOU); Tuktuka (Aym.; USN); Tunna (Dor.; AVP); Tur (Sp.; EFS); Ubi China (Sumatra; IHB); Ubi Jawa (Sumatra; IHB); Ubi Jolah (Sumatra; IHB); Ubi Keladek (Malaya; IHB); Ubi Pélo (Sumatra; IHB); Ubi Pilo (Sumatra; IHB); Ubi Ubi Katélo (Sumatra; IHB); Uhu (Creek; AUS); Urac Comal (Que.; EGG; RAR); Vallikilangu (Tam.; DEP; KAB); Velkelengu (Sri.; KAB); Watapum (Chacobo; DLZ); Yam (Eng.; USN); Yeti (Bol.; Chiriguano; DLZ); Yetica (Por.; AVP); Yetuca (Por.; AVP); Yo (Amuesha; Yanasha; EGG); Yom (Amuesha; RAR); Yutica (Por.; AVP).

### Activities:

Abortifacient (f; EGG; SOU); Aldose-Reductase-Inhibitor (1; X1814628); Alterative (f; DAD); Antidiabetic (1; UPW; X16390172); Antidote (shellfish) (f; VOD); AntiHIV (1; JAF50:3718); Antihyperglycemic (1; X16390172); Antihypertensive (1; X16390172); Antiinflammatory (1; X16390172); Antileukemic (1; JAF51:5916); Antimelanogenic (1; JAF50:3718); Antimelanomic (1; AUS); Antimutagenic (1; JAF50:3718); Antioxidant (1; DAD; JAF50:3718; X15537331); Antiproliferant (1; JAF51:5916); Antiradicular (1; JAF51:5916); Antiseptic (1; X16390172); Antitumor (1; JNU); Antitumor Promoter (1; JAF50:3718); Antitumor (skin) (1; JAF50:3718); Antiviral (1; JAF50:3718); Aphrodisiac (f; EGG; JNU); Apoptotic (1; X15537331); Artemicide (f; JLH); Astringent (f; DAD); Bactericide (f1; DAD; EGG; UPW); Cerebrotonic (f; DEP); Chemopreventive (1; X15537331); Demulcent (f; DAD); Fungicide (f; DAD; EGG; UPW); Gram(+)-icide (1; WOI); Hepatoprotective (1; X16390172); Hypocholesterolemic (1; MPI); Hypoglycemic (1; ZUL); Hypotensive (1; X16390172); Hypotriglyceridemic (1; MPI); Immunostimulant (1; JNU); Insecticide (f; EGG); Lactagogue (f; DAA); Laxative (f; DAA; DAD); Tonic (f; DAD; LMP); UV-Screen (1; X16390172); Vasorelaxant (1; X15138017); Vulnerary (f; EGG; VOD).

### Indications:

Arthrosis (f; EGG); Asthma (f; DAD; LMP); Atherosclerosis (1; MPI); Bacteria (f1; DAD; EGG; UPW); Bites (f; DAD; MPI); Bleeding (f; IED); Boils (f; VOD); Bruises (f; EGG); Burns (f; DAD; DLZ); Cancer, colon (f1; X155373310); Cancer, lung (1; DAD; X15537331); Cancer, mouth (f1; JLH; JNU; X15537331); Cancer, skin (f1; AUS; JAF50:3718; X15537331);

Cancer, throat (f1; JLH; JNU; X15537331); Cardiopathy (1; MPI); Catarrh (f; DAD); Ciguatera (f; DAD); Constipation (f; DAA; DAD); Convalescence (f; DAD); Coughs (f; VOD); Dermatitis (f; VOD); Diabetes (f1; LMP; UPW; X16390172; ZUL); Diarrhea (f; DAD; KAB); Dyslactea (f; DAD; EGG; UPW); Dysuria (f; KAB); Erysipelas (f; DLZ); *Escherichia* (1; WOI); Fever (f; DAD); Fungus (1; DAD; EGG; UPW); Gastrosis (f; DAD; EGG); Glaucoma (1; X1814628); High Blood Pressure (1; X15138017; X16390172); High Cholesterol (1; MPI); High Triglyceride (1; MPI); HIV (1; JAF50:3718); Impotence (f; EGG; JNU; KAB); Infection (f1; DAD; EGG; UPW; WOI; X16390172); Inflammation (f1; EGG; VOD; X16390172); Itch (f; VOD); Leukemia (1; JAF51:5916; X15537331); Melanoma (1; AUS; JAF50:3718); Miscarriage (f; UPW); *Mycobacterium* (1; WOI); Mycosis (1; UPW); Nausea (f; DAD); Nephrosis (f; DAD; LMP); Pain (f; UPW); Rheumatism (f; EGG); Ringworm (f; EGG); Seasickness (f; LMP); Snake Bite (f; DLZ); Sores (f; EGG); Splenosis (f; DAD); Strangury (f; KAB); Swelling (f; EGG; RAR); Thirst (f; IHB; LMP); Toothache (f; UPW); Tumors (f1; DAD; JAF50:3718; JNU; VOD); Ulcers (1; EGG); Varicosis (f; EGG); Viruses (1; JAF50:3718); Whitlow (f; DAD); Wounds (f; EGG; IED; VOD).

### Dosages:

FNFF = !!! Roots and shoots edible cooked (EGG; FAC; IED; TAN).

- Asian Indians suggest the leaves (with *Byttneria*, *Curcuma*, *Nigella*) as lactagogue (SKJ).
- Ghanaians grind leaves with salt and apply to whitlow (WOI).
- Haitians mix root with honey and sulfur as a cough remedy (VOD).
- Haitians mix tuber and olive oil as a remedy for seafood poisoning (VOD).
- Haitians poultice the smashed roots as vulnerary onto burns and itch (VOD).
- Malayans make a drink from roots to allay thirst in fever (WOI).
- Nicaraguan Garifuna apply leaf decoction topically to cuts and hemorrhage (IED).
- Peruvians eat sweet potatoes for ulcers while fasting (EGG).
- Peruvians suggest bruised leaves for dermatosis and ringworm, with vaseline for itch (EGG).
- Peruvians suggest plastering ground tubers on rheumatism and varices (EGG).
- Punjabi regard the tuber as a brain tonic (DEP).

### Downsides:

Of the leaf "Toxic substances have been reported. Excessive ingestion is known to cause diarrhea, even death." (UPW). Ecuadorians warn that cattle grazing the leaves may suffer abortion (SOU). Pregnant women are advised not to ingest the leaves because of this reputed abortifacient activity (EGG). As of July 2007, the FDA Poisonous Plant Database listed 50 titles alluding to toxicity of this species.

### Extracts:

Hot water extracts potently inhibit lens aldose reductase (X1814628). 3,5-dicaffeoylquinic acid: aldose-reductase-inhibitor (X1814628), antihemolytic 10  $\mu$ M (PC36:579), antioxidant 10  $\mu$ M (PC36:579), antiradical 10  $\mu$ M (PC36:579), LD50 (50% ethanol extract) = >1,000 mg/kg ipr mus (MPI).

## BUSH MORNING GLORY (*Ipomoea carnea* Jacq.) ++

### CONVOLVULACEAE

### Synonyms:

*Batatas crassicaulis* Benth.; *Ipomoea crassicaulis* (Benth.) B. L. Rob.; *I. fistulosa* Mart. ex Choisy.

**Notes:**

Ornamental honey plant reportedly hallucinogenic.

Austin (2004) entries for this species are cited as AUS below. WARNING: Weed Alert. Bush Morning Glory (*Ipomoea carnea* ssp. *fistulosa*); Florida Department of Environmental Protection. This aquatic plant species is prohibited by federal and state laws. Possession of Bush Morning Glory is a second degree misdemeanor and may be punishable by a \$500 fine a/o 60 days in jail.

**Common Names:**

Aguinaldo Morado (Cuba; AUS; AVP); Ajamari (Nepal; NPM); Algodão Bravo (Brazil; AUS); Algodon Bravo (Peru; Sp.; LOR); Aurora (Sp.; AUS); Barós (AUS); Behaya (Nepal; Tharu; NPM); Bishram (Tharu; NPM); Borrachero (Peru; AUS; RAR); Caledonia (Ven.; AVP); Camote Caspi (Peru; Sp.; LOR); Campana (Dor.; AUS); Campana Gallega (Dor.; AUS); Campanilla de Arbol (Sp.; AUS); Campanilla Morado (Peru; Sp.; LOR); Campanola (Sal.; AUS); Campanula Lila (Guat.; AUS); Canudo (Brazil; AUS); Caratan (Sp.; AUS); Celedonia (Ven.; AUS); Chilco (Sp.; AUS); Clochette (Haiti; AVP); Flor de Laguna (Sp.; AUS); Flor de Playas (Sp.; AUS); Hiedra de la India (Sp.; AUS); Magaleto (Hon.; AUS); Mañanita (Sp.; AUS); Mataballo (Peru; SOU); Mata Cabra (Ecu.; AUS); Palabra de Hombre (Sp.; AUS); Palo Santo de Castilla (Sp.; AUS); Taguarin (Ven.; AVP); Thechar (Nepal; NPM); Vete de Aquí (Mex.; Sp.; AUS); Xchocokat, Chok'obkat (Maya; AUS); Yerba de Guanajay (Cuba; AUS).

**Activities:**

Adrenergic (1; X10904171); Alpha-Mannosidase-Inhibitor (1; X14664522); Beta-Glucosidase-Inhibitor (1; X14664522); Bradycardiac (1; X2771862); Cardioactive (1; X10783739); Cholinergic (1; X10904171); Hallucinogenic (f; SOU); Immunostimulant (1; X12860305); Paralytic (1; X2771862); Phagocytotic (1; X12860305); Positive Inotropic (1; X10783739); Purgative (f; DAV; RAR); Toxic (1; X2771862; X14664522).

**Indications:**

Constipation (f; DAV; RAR); Wounds (f; NPM).

**Dosages:**

FNFF = ? Leaves, and rarely roots, of other species consumed (JAD).

- Nepalese apply the juice to wounds between the toes caused by long walks barefoot in muddy water (NPM).
- Milky latex applied to cuts and wounds (NPM).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed 32 titles alluding to toxicity of this species.

**Extracts:**

Low dosages of powdered leaf in water enhanced phagocytosis and hydrogen peroxide production by macrophages (X12860305).

## PURPLE MORNING GLORY (*Ipomoea indica* (Burm.) Merr.) + CONVOLVULACEAE

**Synonyms:**

*Convolvulus acuminatus* Vahl; *C. indicus* Burm. (basionym); *Ipomoea acuminata* (Vahl) Roem. & Schult.; *I. cathartica* Poir.; *I. congesta* R. Br.; *I. learii* Paxton; *Pharbitis acuminata* Choisy; *P. cathartica* (Poir.) Choisy; fide (USN).

**Common Names:**

Aguinaldo Morado (Cuba; AUS; JTR); Aguinaldo Rosado (Cuba; AUS; JTR); Bejuco de Gloria (Pr.; JTR); Blue Dawn Flower (Eng.; Fla.; AUS; USN); Bois Patate Marron (Haiti; AHL); Campanilla (Hon.; AUS); Campanitas (Dor.; AHL); Estrella Vespertina (Dor.; AUS); Gloria de la Mañana (Bel.; AUS; BNA); Liane Manger Cochon (Haiti; AHL; AUS); Liane Purgative (Haiti; AHL); Liane Purgative a Bauduit (Fwi.; JTR); Mange Cochon (Haiti; AHL); Morning Glory (Eng.; USN); Patate Marron (Haiti; AHL); Patate Sauvage (Haiti; AHL; AUS); Purperwinde (Afrikaan; USN); Purple Morning Glory (Bah.; JTR); Quiebra Platos (Mex.; AUS); Quilamula (Guat.; AUS); Rue Purgante (Haiti; AUS); Sayün (Guat.; AUS); Soyotquilit (Mex.; Nahuatl; AUS). (Nscn).

**Activities:**

Antiseptic (f; JTR); Purgative (f; JTR).

**Indications:**

Infection (f; JTR); Sores (f; JTR).

**Dosages:**

FNFF = ?

- Cubans use root as purgative (JTR).
- West Indians use the plant decoction as a detergent for infected sores (AHL; JTR).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

## CYPRESSVINE (*Ipomoea quamoclit* L.) ++

### CONVOLVULACEAE

**Illustrations:**

fig 137 (WOI)

**Synonyms:**

*Convolvulus pennatus* Desr.; *Quamoclit pennata* (Desr.) Bojer; *Q. vulgaris* Choisy; fide (USN).

**Common Names:**

Cambustera (Dor.; Pr.; AVP); Cambustera de Hoja Calada (Pr.; AVP); Campanilla (Peru; SOU); Campanilla Colorado (Peru; SOU); Cheveux de Venus (Fr.; Haiti; AHL; USN); Chotaki Gurubans (Tharu; NPM); Churiakranti (Mal.; KAB); Cundeamor (Col.; Cr.; Sp.; AVP; KAB); Cupid's Flower (Eng.; NAD); Cypressvine (Eng.; USN); Cypressvine Morning-Glory (Eng.; USN); Enredadera (Peru; Sp.; LOR; MDD; SOU); Estrella del Sol (Dor.; AHL); Indian Pink (Eng.; WOI); Inguirranambichal (Chiriguano; DLZ); Kamalata (Ben.; Hindi; Sanskrit; KAB; WOI); Kamalate (Kan.; WOI); Kamlata (Ben.; KAB); Kasiratnamu (Tel.; WOI); Kembumalligai (Tam.; WOI); Kempumallige (Kan.; WOI); Khumara (Que.; DLZ); K'umara (Que.; DLZ); Kunjolote (Oriya; WOI); Liane Rouge (Fr.; Fwi.; USN); Mayirmanik-kam (Tam.; WOI); Myatlaaoeni (Burma; KAB); Red Jasmine (Eng.; KAB); Regadero (Sp.; USN); Sitachekesa (Mar.; KAB; WOI); Star-Glory (Eng.; USN); Sternwinde (Ger.; AVP); Suriyakanthi (Mal.; WOI); Sweet-Willy (Eng.; USN); Tarulata (Ben.; Sanskrit; KAB; WOI); Vishnukrantu (Mar.; WOI).

**Activities:**

Analgesic (f; DAW); Astringent (f; KAB); Cyanogenic (f; DAW); Detergent (f; DAW); Febri-fuge (f; WOI); Hemostat (f; WOI); Purgative (f; DLZ; WOI); Sternutatory (f; DAW).

**Indications:**

Bleeding (f; WOI); Carbuncles (f; DAW); Catarrh (f; DAW); Constipation (f; DLZ); Diarrhea (f; KAB); Fever (f; WOI); Hematemesis (f; NPM); Hemorrhoids (f; DAW); Nausea (f; KAB); Pain (f; DAW); Snake Bite (f; DAW; WOI); Sores (f; DAW); Uterosis (f; KAB).

**Dosages:**

FNFF = ! Leaves used as potherb (WOI). Pounded leaves applied to bleeding piles (WOI). ½ teaspoon decoction given for hematemesis (NPM).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.

## BUTTERFLY (*Irlbachia alata* (Aubl.) Maas) +

### GENTIANACEAE

**Synonyms:**

*Chelonanthus acutangulus* (Ruiz & Pav.) Gilg; *C. alatus* (Aubl.) Pulle; *Lisianthus acutangulus* Ruiz & Pav.; *L. alatus* Aubl. (basionym); fide (USN).

**Common Names:**

Amaraguna (Peru; Sp.; LOR); Amaragunya (Peru; SAR); Ammanssey (Palikur; GMJ); Campanita del Campo (Peru; Sp.; LOR); Ch'achi (Aym.; DLZ); Cuparita (Bol.; Tacana; DLZ); Hierba de Adan (Sp.; IED); Hokosogono (Huitoto; SAR); Mariposa (Peru; RAR); Silikaleiposili (Wayãpi; GMJ); Tabaco Bravo (Brazil; Por.; GMJ; SAR); Unya de Tigre (Peru; SAR); Yerba de Mariposa (Peru; RAR).

**Activities:**

Analgesic (f; DAV); Antimalarial (1; X15849870); Bitter (f; DAV); Fungicide (1; JNP62:824; X10395496); Insectifuge (f; SAR); Purgative (f; RAR).

**Indications:**

Colic (f; DAV); Dyspepsia (f; SAR); Fever (f; DAV); Fungus (1; JNP62:824; X10395496); Gastrostis (f; RAR); Infection (f1; DAV; JNP62:824; X10395496); Malaria (1; X15849870); Mycosis (f1; DAV; JNP62:824; X10395496); Neuralgia (f; IED); Pain (f; DAV); Stomachache (f; SAR).

**Dosages:**

FNFF = ?

- Kubeo take tea of roots and leaves for stomach distress after eating tainted fish or meat (SAR).

**Extracts:**

Extract antimalarial, inhibited 50% parasite growth *in vivo* (100 mg/kg) (X15849870). Irlbacholine and several related analogues were synthesized and their antifungal activities against *Candida albicans*, *Cryptococcus neoformans*, and *Aspergillus fumigatus* were assessed. The natural bisphosphocholine, irlbacholine, was the most potent compound, its 22-carbon chain length appearing to be optimal (JNP62:824; X10395496). I maintain that evolution favors the natural over these synthetic modifications, speculating that nature has made all these “synthetics” too but selected the best, in this case irlbacholine (JAD).

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# J

## CUBAN CANCERTREE (*Jacaranda caerulea* (L.) J. St.-Hil.) ++

### BIGNONIACEAE

#### Synonyms:

*Bignonia caerulea* (L.) Griseb. (basionym); *Jacaranda bahemensis* R. Br.; *J. sagraeana* DC.; fide (JTR; USN).

#### Common Names:

Abey (Cuba; JTR); Abey Macho (Cuba; JTR); Boxwood (Eng.; JTR; USN); Cancer Bush (Eng.; JFM); Cancer Tree (Eng.; JFM; USN); Framboyan Azul (Ma.; JFM); Horse Bush (Eng.; JFM); What O'Clock (Eng.; JFM). (Nscn).

#### Activities:

Antiseptic (f; JTR).

#### Indications:

Acne (f; JFM; JTR); Cancer (f; JFM; JLH); Cancer, skin (f; JFM; JLH); Dermatitis (f; JFM; JTR); Eczema (f; JFM; JTR); Infection (f; JTR).

#### Dosages:

FNFF = ?

- Bahamans apply parched leaf decoction to skin cancer and other skin ailments (JFM).
- Cubans use leafy branch decoction to bathe eczema and pimples (JFM; JTR).

#### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

## GUALANDAY (*Jacaranda caucana* Pittier) +

### BIGNONIACEAE

#### Synonyms:

*Jacaranda ficifolia* D. Don.; *J. gualanday* Cortes; *J. trianae* Kranzl; fide (MPG).

#### Notes:

It seems that Gupta (1995) follows Garcia-Barriga in aggregating medicinal uses of *J. caucana*, *J. copaiba*, *J. glabra*, and *J. obtusifolius*, so MPG entries below may be generic. Common names and scientific names not too reliable. Often the PubMed abstract doesn't tell the story. Occasionally the PubMed abstract has an e-mail address for an author and sometimes authors respond with important details or send the whole article. I'd like to thank Dr. Bernard Weniger for his response to my query. "*Jacaranda caucana* showed *in vitro* antimalarial activity on the D2 chloroquine resistant strain of *P. falciparum*, with



IC50 = 4.6 µg, but did not show leishmanicidal activity in our *in vitro* assay.” Best regards and my thanks to you, Dr. Weniger.

**Common Names:**

Acacia (Col.; MPG); Aceituno (Col.; MPG); Caballito (Col.; MPG); Caro (Col.; MPG); Cornique (Col.; MPG); Gualanday (Col.; MPG); Guayacán (Col.; MPG); Palo de Boba (Col.; MPG); Piñón de Oreja (Col.; MPG). (Nscn).

**Activities:**

Anticancer (f1; JLH; MPG; X875643); Antiinflammatory (1; X10418336); Antimalarial (1; X11694364); Antiseptic (f1; MPG; X11694364); Antisyphilitic (f; MPG); Antitumor (1; X875643); Cathartic (f; MPG); Cytotoxic (1; X875643); Depurative (f; MPG); Diaphoretic (f; MPG); Emetic (f; MPG); Leishmanicide (1; X11694364); 5-Lipoxygenase-Inhibitor (1; X10418336); Protisticide (1; X11694364); Trypanocide (1; X11694364); Vulnerary (f; MPG).

**Indications:**

Arthrosis (f; MPG); Cancer (f1; JLH; MPG; X875643); Chickenpox (f; MPG); Diabetes (f; MPG); Infection (f1; MPG; X11694364); Inflammation (1; X10418336); *Leishmania* (1; X11694364); Malaria (1; X11694364); Neuralgia (f; MPG); Phlegm (f; MPG); Sores (f; MPG); Syphilis (f; MPG); Trypanosomiasis (1; X11694364); Tumors (f1; JLH; MPG; X875643); Varicosity (f; MPG); VD (f; MPG); Wounds (f; MPG).

**Dosages:**

FNFF = ?

- Colombians apply powdered dry leaves to sores like iodine (MPG).
- Colombians around Caldas use in baths for arthroses and neuralgias and drink for chickenpox, diabetes, varicosities, and VD (MPG).

**Extracts:**

Anticancer and cytotoxic activity reported for jacaronone (MPG; X875643). Extracts show good leishmanicidal and trypanocidal activity (X11694364).

**HUAMANSAMANA (*Jacaranda copaia* (Aubl.) D. Don.) +  
BIGNONIACEAE**

**Illustrations:**

fig 129 (DAV)

**Synonyms:**

*Bignonia copaia* (Aubl.); *Jacaranda spectabilis*; *J. superba*; fide (EGG).

**Notes:**

Suspicious of the common and scientific names of the easy-to-recognize genus *Jacaranda*, with its hard-to-recognize species, I deign not to give their scientific name as the common name as McGuffin et al. (1997) have done for *Jacaranda caroba*. For this species, *J. copaia*, I adopt a widely and fairly consistently used Spanish common name, used around my old haunts, the Explorama lodges and camps in Loreto, and even near the airport in Puerto Maldonado. In Panama, leaves fall in the beginning of the dry season and are replaced after flowering (TBC).

**Common Names:**

Ampichanga (Peru; EGG); Aspingo (Peru; EGG); Barbatimão (Brazil; RAR); Caraúba (Brazil; MPB); Caroba do Mato (Brazil; MPB); Carobçu (Brazil; MPB); Cedro Blanco (Sp.; TTS);

Chicharra Caspi (Peru; EGG); Chingale (Sp.; TTS); Gualanday (Sp.; TTS); Huamansamana (Peru; EGG); Inthapi (Aym.; Bol.; DLZ); Ishpingo (Peru; EGG); Ishtapi (Peru; EGG); Mami Rao (Peru; EGG); Marupá (Brazil; MPB); Marupá Falso (Brazil; MPB); Meneco (Peru; EGG); P'aipaku (Bol.; Que.; DLZ); Palo de Bura (Pan.; TBC); Papelillo (Peru; EGG); Parapará (Brazil; MPB); Paravisco (Peru; EGG); Pavito (Sp.; TTS); Simaruba Copaia (Brazil; MPB); Simaruba Falsa (Brazil; MPB); Solimán de Monte (Peru; EGG); Vainillo (Sp.; TTS); Yana (Peru; EGG). (Nscn).

**Activities:**

Anesthetic (f; EGG); Antisyphilitic (f; MPB); Cathartic (f; MPB); Cicatrizant (f; DAV; EGG; SAR); Diaphoretic (f; MPB); Emetic (f; MPB); Mosquitofuge (f; DAV); Vulnerary (f; DAV).

**Indications:**

Abscesses (f; EGG); Arthrosis (f; EGG); Bronchosis (f; DAV; EGG); Caries (f; EGG); Colds (f; DAV); Constipation (f; MPB); Dermatitis (f; MPB); Diarrhea (f; EGG); Fever (f; DAV; EGG); Infection (f; DAV; SAR); Itch (f; MPB); *Leishmania* (f; DAV); Pain (f; EGG); Pneumonia (f; DAV); Rheumatism (f; DAV; EGG); Sores (f; MPB); Sore Throat (f; MPB); Syphilis (f; DLZ; EGG; MPB); Toothache (f; DAV); Urethrosis (f; MPB); VD (f; MPB); Wounds (f; DAV; EGG; SAR).

**Dosages:**

FNFF = ?

- Andoke use crushed leaves as a cicatrizant on wounds (SAR).
- Bolivians use the leaf infusion for syphilis (DLZ).
- Brazilians believe burning the leaves and bark will keep illness and mosquitoes away (DAV).
- Brazilians use the cathartic and emetic bark for itch, syphilis, and urethritis, and the leaves in gargles for syphilitic sore throat (MPB).
- Créoles and Maroons use the herb for leishmaniasis (DAV).
- Peruvians around Pucallpa use leaf decoction for bronchitis, fever, and rheumatism (DAV).
- Peruvians use for sores, syphilis, and toothache (DAV).
- Rio Vaupes natives use shredded bark in teas for colds and pneumonia, the sap for skin infections (SAR).

**PURGING NUT (*Jatropha curcas* L.) X**

**EUPHORBIACEAE**



**Illustrations:**

fig 132 (DAV); p 278 (NPM); p 417 (LWW); pl 867B (KAB)

**Synonyms:**

*Curcas curcas* (L.) Britt. & Millsp.; *C. indica* A. Rich; fide (JTR).

**Notes:**

In Haitian vodou, *Jatropha curcas* is the habitat (preferred and sacred tree) of the Iwa Legba and the Gede and Baron Samedi (VOD). Beauvoir et al. (2001) key *J. curcas* as the species with obsolete stipules, and non-reddish petals, *J. gossypifolia* with glandular stipules, petals purplish and 3–5-lobed leaves, *J. multifida* with eglandular stipules, petals red and leaves 8–12-lobed leaves (VOD). For this Latin American edition of my CRC *Handbook of Medicinal Plants*, I have tried to enter all Latino common names I could find. But this useful plant has so many common names, e.g., spanning three pages in Kirtikar and Basu (KAB), that I use what I call my one each approach, going through for example my main Indian sources. That way I cite only one name of the many reported for several countries and dialects, many of which I never heard of, not really knowing whether they are African or Asian. For KAB I frequently insert such a notation as [1 of 6] meaning that I am only transcribing 1 of the 6 colloquial names reported by Kirtikar and Basu for that language or dialect or country. I may be guilty of establishing the common name “bubble bush,” introducing it in 2002 (CR2) after seeing the son of shaman Gilmer Montero blowing bubbles with the saponaceous film in the leaf stalks (the USDA took it up among the common names they subsequently listed on their nomenclature database). I thought I had learned something new in science, but way back in 1906 it was published that the white juice of the stem froths and “children, with the aid of a little bit of bamboo stem, can blow bubbles with it” (IHB).

**Common Names:**

Aborotortor (Akwapim; Twi; KAB); Abrortortor (Krepi; Quittah; KAB); Adadze (Fanti; KAB); Adalai (Tam.; [1 of 10] KAB); Adaluharalu (Kan.; [1 of 12] KAB; WOI); Adaviyamudamu (Tel.; [1 of 6] KAB); Akakgachha (Danuwar; NPM); Akhuparnika (Sanskrit; [1 of 12] KAB); Angular Leaved Physic Nut (Eng.; Jam.; AVP; MPI; NAD); Angular Physic Nut (Jam.; AVP); Arari (Danuwar; NPM); Arbol Santo (Ma.; Pan.; JFM; TBC); Aren (Majhi; NPM); Aril (Majhi; NPM); Arin (Nepal; NPM); Avellana Purgante (Mex.; AVP; JTR); Babatsi (Ewe; KAB); Bagani (Sudan; AVP); Bagberenda (Hindi; DEP; MPI; NAD); Baghandi (Mooshar; NPM); Baigab (Oriya; DEP; KAB); Baigoba (Oriya; KAB); Barane (Soussou; KAB); Barbados Nut (Aust.; Eng.; TAN; USN); Barbasco (Peru; EGG); Bettadaharalu (Kan.; MPI); Bhernda (San.; DEP; KAB); Binidazougou (Sudan; AVP); Binidazugu (Hausa; KAB); Bolongcauit (Pi.; KAB); Bon-Bheranda (Ben.; DEP; MPI; NAD); Bondoc Mous'heil (Arab.; AVP); Bongalibhotora (Assam; WOI); Borbandong (Caro; WOI); Bubble Bush (Eng.; CR2; USN); Casla (Vis.; KAB); Common Physic Nut (Jam.; AVP); Coquillo (Cr.; Pan.; AVP; JTR; LWW; TBC); Coquito (Cr.; AVP); Cotoncillo (Hon.; Ma.; JFM; LWW); Cuipu (Mex.; AVP); Curcas Bean (Eng.; Ma.; JFM; LWW); Dande Barri (Arab.; Iran; DEP; KAB); Dande Nahri (Arab.; Iran; DEP; KAB); Dekiro (Raute; NPM); Desya (Tamang; NPM); Dhuching (Chepang; NPM); Djarak Goondool (Java; TAN); Ehanduejot (Dec.; KAB); Erandagchherond (Kon.; KAB); Erundi (Dec.; DEP); Feuilles Médecinier (Fwi.; Haiti; AHL); Figo do Inferno (Brazil; MPB); Flor de Coral (Por.; AVP); Frailecillo (Col.; Ma.; JFM; LWW); Frailejón (Col.; Sp.; JFM; LWW; USN); Gab Bherenda (Ben.; NAD); Galamark (Goa; NAD); Gara (Tamang; NPM); Grand Haricor du Peru (Fwi.; AVP); Grand Médecinier (Creole; Fwi.; Haiti; AHL; VOD); Grao Maluco (Por.; KAB); Grave Physic Nut (Dwi.; Ma.; JFM; LWW); Gros Ricin (Haiti; AVP); Gwo Ricen (Creole; Haiti; VOD); Gyagar Desya (Tamang; NPM); Haricot du Pérou (Fr. [1 of 12]; KAB); Herbe du Bon Dieu (Wi.; KAB); Higos del Duende (Peru; EGG); Higuereeta (Pr.; AVP); Huiso Pionis (Peru; Shipibo/Conibo; EGG; MD2); Inhlakuva (Zulu; ZUL); Inkoko

(Congo; AVP); Irundi (Bom.; [1 of 7] KAB); Jadabindi (Mun.; KAB); Jahazigaaba (Oriya; WOI); Jamalgota (Guj.; DEP; KAB; MPI; WOI); Jangliarandi (Guj.; Hindi; KAB; WOI); Jangli Erandi (India; EFS); Japhotra (Pun.; MPI); Jaquillo (Col.; Pan.; IED); Jarak (Indonesia; Malaya; EFS; IHB); Jarak Bělanda (Malaya; IHB); Jarakblanda (Malaya; KAB); Jarak Buděg (Java; IHB); Jarak China (Java; IHB); Jarak Gundul (Java; IHB); Jarak Iri (Java; IHB); Jarak Kafiri (Malaya; IHB); Jarak Kěling (Malaya; IHB); Jarak Kosta (Sunda; IHB); Jarak Mělaka (Malaya; IHB); Jarak Pagar (Malaya; IHB); Jarak Pegěr (Java; IHB); Jarak Puteh (Malaya; IHB); Jarak Wolanda (Malaya; IHB); Jepal (Guj.; NAD); Jirak (Sumatra; IHB); Josho Pionis (Peru; Shipibo/Conibo; EGG; MD2); Kaak Avenako (Mal.; DEP); Kadaharalu (Kan.; NAD); Kadalamanakku (Tam.; MPI; WOI); Kadalambudu (Tulu; KAB); Kadalavanakka (Mal.; WOI); Kadam (Nepal; Rai; DEP; NPM); Kaderadi (Kon.; NAD); Kadim (Nepal; NPM); Kanana Eranda (Sanskrit; NAD; WOI); Kananda Eranda (Sanskrit; DEP; EFS); Kaneadua (Agona; KAB); Karnocchi (Kan.; WOI); Katamanak (Mal.; MPI); Kattamanak (Mal.; NAD); Kattamanakku (Tam.; DEP; NAD); Kattavanakku (Mal.; KAB); Kesugi (Burma; DEP); Kidi (Fulah; KAB); Kilembelembe (Congo; AVP); Kinampotsi (Malagasy; KAB); Kinidazougou (Sudan; AVP); Kitigblaicho (Krobo; KAB); Kizika (Betsimisarakaka; KAB); Kourkas (Arab.; AVP); Kplukacho (Ga; KAB); Kulabindadaru (Naguri; KAB); Kulaiaradaru (Hasada; KAB); Kulejera (Kol.; KAB); Kwadidicho (Ada; KAB); Kwiwala (Cuna; Pan.; IED); Ladima (Congo; AVP); Likoko (Congo; AVP); Lohong Khvang Sa (Cam.; KAB); Ma Feng Shu (Pin.; DAA); Ma Fong Chou (China; KAB); Mandabi Guacu (Brazil; MPB); Mani del Palo (Ma.; JFM); Mantaba (Sudan; AVP); Maraharalu (Kan.; DEP); Mědicinier (Fr.; Fr. Guiana; Fwi.; Haiti; AHL; EFS; KAB; LWW; USN); Mědicinier à Grand Feuilles (Fwi.; Haiti; AHL); Mědicinier Barrière (Fwi.; Guad.; AVP); Mědicinier Beni (Fwi.; Guad.; Haiti; AHL; AVP; LWW); Mědicinier Blanc (Dom.; Guad.; AVP; LWW); Mědicinier Blanc Cathartique (Ma.; JFM); Mědicinier Cathartique (Fwi.; Haiti; AHL); Mědicinier Grand Bénit (Guad.; AVP); Mědicinier Purgatif (Guad.; AVP); Medsiyen (Haiti; TRA); Medsiyen Béni (Creole; Haiti; VOD); Mogalieranda (Bom.; Mar.; DEP; KAB); Mogalierenda (Mar.; WOI); Munduvi Guasu (Chiriguano; DLZ); Mvuisi (Congo; AVP); Nepala (Sanskrit; DEP); Nepalam (Tel.; DEP); Nepalamu (Tel.; WOI); Niguri (Chepang; NPM); Nimte (Nepal; NPM); Nkrangye Dua (Akim; KAB); Noix des Barbades (Fwi.; AVP); Odinidazougou (Sudan; AVP); Offosntang (Pahouin; KAB); Ogomba (Gabon; KAB); Paharierand (Ben.; [1 of 6] KAB); Palo Santo (Cuba; AVP); Parvataranda (Sanskrit; WOI); Parvata Yeranda (Sanskrit; EFS; NAD); Pedanepalemu (Saora; KAB); Pepalam (Tel.; MPI; NAD); Periyawasi (Piro; EGG); Physic Nut (Bel.; Eng.; Ocn.; AAB; AH2; LWW; SUW; VOD); Pino (Brazil; LWW); Pino Branco (Brazil; LWW; MPB); Pignon des Barbados (Fr.; Guad.; AVP); Pignon d'Inde (Fr.; Guad.; Guy.; Réunion; AVP; EFS; KAB; USN); Pignons d'Inde (Trade; LWW); Pinhno (Brazil; MPB); Pinhno Bravo (Brazil; LWW); Pinhno de Purga (Por.; AVP); Pinhno do Inferno (Brazil; [1 of 8] KAB); Pinhno do Manso (Brazil; MPB); Pinhno do Paraguai (Brazil; MPB); Pinhno Lorancol (Por.; AVP); Pinhno Manso (Brazil; MPB); Pinheiro do Inferno (Brazil; KAB); Piñól (Peru; EGG; SOU); Piñón (Bol.; Dor.; Ecu.; Guat.; Hon.; Nic.; Sp.; Ven.; AVP; BEJ; DLZ; EGG; JTR; TRA; USN); Piñón Blanco (Peru; Sp.; EGG; LOR; MD2; MDD; USN); Piñón Botija (Cuba; Sp.; AVP; JTR; TRA); Piñóncillo (Mex.; Sp.; AVP; KAB; LWW); Piñóncitos (Peru; Sp.; EGG; SOU); Piñón Criollo (Cuba; JTR); Piñón de Botija (Cuba; Ma.; JFM; RyM); Piñón de Cercas (Cuba; Ma.; JFM); Piñón de India (Ma.; JFM; JTR); Piñón de la India (Sp.; EFS); Piñón de Paraguay (Ma.; JFM); Piñón de Purga (Col.; AVP; LWW); Piñónes Purgativos (Peru; EGG); Piñón Joshó (Amahuaca; Peru; EGG; MD2); Piñón Lechero (Cuba; JTR); Piñón Lotija (Cuba; AVP); Piñón Purgante (Cuba; Mex.; AVP; LWW); Piñón Vomico (Cuba; JTR); Pinyanasi (Piro; EGG; SOU); Poorgeernoot (Ma.; JFM); Purga de Fraile (Cuba; AVP); Purga du Huane (Ma.; JFM); Purgeernoot (Dutch; EFS); Purgenut (Eng.; USN); Purgenut Bush (Eng.; JFM); Purgère (Fr.; USN); Purgiernuß (Ger.; EFS; USN); Purging Nut (Eng.; Scn.; AH2; CR2; VOD); Rajani Giri (Gurung; NPM); Ran Erandi (Mah.; MPI; NAD); Ran-

niarendero (Lambadi; KAB); Ratan (Bhil; KAB); Ratanjot (Tharu; NPM); Ratanjota (Guj.; WOI); Ratanjyor (India; USN); Rattanjot (Pun.; DEP); Ratyun (Magar; NPM); Sabudang (Thai; IHB); Safedarand (Hindi; [1 of 7] KAB); Safe Dind (Hindi; NAD); Sagin (Gurung; NPM); Sajiba (Nepal; SUW); Sajiwa (Nepal; SUW); Sajyon (Nepal; NPM); Sangre-Gado (Ma.; Mex.; JFM; JTR; LWW); Sangre-Grado (Mex.; AVP); Sanouber el Hend (Arab.; AVP); Satiman (Gurung; NPM); Savoia (Sakalave; KAB); Schijtnoot (Dwi.; Sur.; JFM; LWW); Schwarze Brechnuss (Ger.; AVP); Schwarzelrechnuss (Ger.; KAB); Semen Ricini Majoris (Trade; LWW); Simbo Kesu (Burma; NAD); Sumo (Congo; AVP); Taiwan Abura Giri (Japan; TAN); Tanantanambazaha (Hova; KAB); Tapate (Cr.; JTR); Taprika (Nzima; KAB); Tártago (Cuba; Pr.; Sp.; AVP; JTR; LWW); Tatataba (Tag.; KAB); Tavatova (Ilo.; KAB); Tempacte (Ma.; JFM); Tempate (Cr.; AVP; LWW); Tempocte (Guat.; JTR); Tempote (Cr.; Nic.; Sal.; JTR); Thinbaukyeksu (Burma; KAB); Totka Bendi (Kol.; DEP); Tuatúa (Col.; LWW); Valavenola (Antsianaka; KAB); Valerandu (Sin.; NAD); Velendaru (Sin.; DEP; KAB); Vyaaghrairanda (Sanskrit; MPI); Wapa Wapa Oshe (Ese'aja; EGG; MD2); Wasicano (Chacobo; DLZ); White Physic Nut (Ma.; JFM); Wild Oil Nut (Eng.; Jam.; AVP; VOD); Xkakalche (Ma.; JFM); Yupur (Ma.; JFM).

### Activities:

Abortifacient (f; CRC; MPG; WBB); Acaricide (1; X15153077); Analgesic (f; CRC; EGG); Anthelmintic (1; HDN; WBB); Anticancer (1; FNF; ZUL); Anticoagulant (1; X14522439); Anticonvulsant (1; MPG; 60P); Antiedemic (1; X14698501); Antiherpetic (1; TRA); AntiHIV (1; JE64:15); Antiinflammatory (f1; EGG; MPG; X14698501); Antileukemic (1; ZUL; 60P); Antilymphomic (1; HDN); Antiscorbutic (f; RyM); Antiseptic (1; CRC; EGG; VVG; X10493051; 60P); Antispasmodic (f; 60P); Antitumor (f1; EGG; TRA; VVG; X12617773); Antiviral (1; CRC; TRA); Astringent (f; NAD; ZUL); Bactericide (1; MPG; TRA; X15381012); Candidicide (1; TRA); Carcinogenic (1; VVG); Cardiodepressant (1; MPI); Cholagogue (f; HDN); Cicatrizant (f; CRC); CNS-Depressant (1; MPI); Contraceptive (f; CRC); Convulsant (1; HDN); Curare (f; HDN; ZUL); Cyanogenic (1; CRC; MPG); Depurative (f; CRC; NAD; VVG); Diuretic (f1; CRC; MPB; MPI; WBB); Emetic (f1; CRC; DEP; RyM; VOD); Emollient (f; AHL); Hemolytic (1; MPI); Hemostat (f1; CRC; DEP; IHB; MPB; MPI; WBB; X14522439); Hypotensive (1; MPI); Insecticide (1; ZUL); Insectifuge (f; CRC; WBB); Keratolytic (f; EGG); Lactagogue (f; CRC; JFM; MPG; WOI); Larvicide (1; X10493051); Laxative (f; EGG); Molluscicide (1; CRC; X10929142; ZUL); Mosquitocide (1; MPI); Narcotic (f; CRC); Orexigenic (f; NPM); Ovicide (1; X10493051); Parasiticide (f; 60P); Piscicide (1; CRC; EGG; WBB; ZUL); Procoagulant (1; X14522439); Propepic (f; WOI); Proteolytic (f; ZUL; 60P); Purgative (f1; AAB; DEP; EGG; VOD; VVG; WBB); Rodenticide (f1; AHL; CRC); Rubefacient (f; CRC; MPG; ZUL); Spasmogenic (1; MPI); Stomachic (f; NAD); Vermifuge (f; CRC; JFM; VOD); Vulnerary (1; CRC; EGG; X9080340).

### Indications:

Abscesses (f; EGG; HDN; 60P); Acne (f; NPM); Alopecia (f; CRC; WOI; ZUL); Amenorrhea (f; EGG); Anasarca (f; CRC; SKJ); Anemia (f; HDN; KAB); Aneurism (f; DEP); Angina (f; WBB); Anorexia (f; MPG; NPM); Arthrosis (f; MAD; WBB); Ascites (f; CRC; WBB); Asthma (f; EGG); Backache (f; AAB); Bacteria (1; MPG; X15381012); Bleeding (f1; CRC; DEP; MPG; NPM; X14522439); Boils (f; NPM; VVG; ZUL); Bruises (f; VOD); Burns (f; CRC; EGG; JFM; MPG; NPM); Cancer (f1; EGG; FNF; HAD; JLH; X12617773); *Candida* (f1; AAB; JFM; MD2; TRA); Carbuncles (f; CRC); Cardiopathy (f; KAB); Caries (f; EGG; MD2; NPM); Catarrh (f; MPG); Childbirth (f; CRC); Chills (f; MAD); Cholera (f; MAD); Colds (f; JFM); Colic (f; MPG); Conjunctivitis (f; EGG); Constipation (f1; JFM; MPB; VOD; WBB; ZUL); Convulsions (1; CRC; MPG; ZUL); Coughs (f; CRC; EGG; IHB); Cramps (f; MAD); Cyanosis (f; MAD); Cytomegalovirus (1; TRA); Dermatitis (f; CRC; VOD; WBB; ZUL); Diabetes (f; HDN); Diarrhea (f1; CRC; IHB; JFM; MPG); Drepanocytosis (f; HDN); Dropsy (f; CRC; RyM; WBB; WOI); Dysentery (f; AHL; CRC; EGG; JFM; MPG); Dyslactea

(f; KAB; SUW); Dyspepsia (f; CRC; WOI); Dysuria (f; KAB); Earache (f; DAV); Eczema (f; DEP; NPM; VOD; 60P); Edema (f1; HDN; VOD; X14698501); Enterosis (f; HDN; KAB; VOD); Epilepsy (f; HDN); Erysipelas (f; CRC; JFM; MPG); Fever (f; CRC; JFM; NPM; 60P); Fistula (f; KAB); Fits (f; ZUL); Flu (f; VOD); Fractures (f; MPG); Fungus (f; EGG; HDN; NPM); Gargantosis (f; AAB); Gastrosis (f; EGG; VAG); Gingivosis (f; AAB; DAV; EGG; MPG; NPM; 60P); Glossosis (f1; LMP; MPG; TRA; VOD; ZUL); Gonorrhea (f; AHL; CRC; EGG; 60P); Gout (f; MPG; WBB; 60P); Guinea Worm (f; KAB); Headache (f; 60P); Heartburn (f; JFM); Hematoma (f; MPB); Hemorrhoids (f; EGG; JFM; MPG; 60P); Hepatoma (1; X12617773); Hernia (f; CRC; 60P); Herpes (f1; DEP; MPG; NAD; TRA; ZUL); Hiccups (f; HDN); High Blood Pressure (1; MPI); HIV (1; JE64:15); Hookworm (1; HDN); Incontinence (f; CRC); Infection (f1; CRC; EGG; MPG; NPM; VOD; VVG); Inflammation (f1; AAB; CRC; EGG; VOD; X14698501); Insanity (f; HDN); Itch (f; VOD); Jaundice (f; CRC; EGG; JFM; ZUL); *Leishmania* (1; 60P); Leprosy (f; HDN); Leukemia (1; JFM; MPG); Leukorrhea (f; EGG; HDN); Malaria (f1; EGG; HDN; NPM; X12820245; ZUL; 60P); Mange (1; X15153077); Marasmus (f; JFM); Mycosis (f1; EGG; 60P); Nephrosis (f; MPG); Neuralgia (f; CRC); Ophthalmia (f; KAB; MPB); Ovary (f; AAB); Pain (f; CRC; NPM); Paralysis (f; CRC; DAV; WBB; WOI); Parasites (1; MPG); Pleurisy (f; CRC); Pneumonia (f; CRC); Polyuria (f; LMP); Pyorrhea (f; NPM); Rashes (f; CRC); Rheumatism (f; DEP; WBB); Ringworm (f; JFM; NPM); Scabies (f; CRC; NPM); Scar (f; HDN); Schistosomiasis (1; X10929142); Sciatica (f; CRC; WBB; WOI); Sinusitis (f; MPB; 60P); Smallpox (f; HDN); Snake Bite (f; MPB); Sores (f; CRC; MPG; VOD; ZUL); Spermatorrhea (f; HDN); Splenosis (f; JFM); Sprains (f; NPM); *Staphylococcus* (1; MPG; TRA); Stomachache (f; CRC; MPG; WOI); Stomatosis (f; AAB; NPM; WOI); *Streptococcus* (1; DAV; HDN; MPG); Sunburn (f; 60P); Swelling (f1; NPM; SUW; VOD; X14698501); Syncope (kollaps) (f; MAD); Syphilis (f; CRC); Tetanus (f; CRC); Thirst (f; KAB); Thrush (f1; AAB; CRC; JFM; MD2; VOD); Tonsilosis (f; EGG); Toothache (f; DAV; EGG; MAD; MPG); Tumors (1; FNF; HAD; JLH); Ulcers (f; CRC; EGG); Urethrosis (f; HDN); Uterosis (f; CRC); Vaginosis (f; EGG); Varicosity (f; DEP); VD (f; AHL; CRC; EGG; JFM; ZUL); Viruses (1; JE64:15; TRA); Warts (2; MPG; 60P); Water Retention (f; AAB); Whitlow (f; CRC; SKJ); Worms (f1; HDN; KAB; MAD; VOD); Wounds (f; EGG; JFM; VOD; VVG; WBB); Yaws (f; CRC); Yeast (f1; CRC; JFM; TRA); Yellow Fever (f; CRC).

### Dosages:

FNFF = !??? I'm skeptical but Tanaka (1976) says the young leaves are steamed with hot peppers or eaten in stews. "Seeds are edible." ... "though the center of seed kernel should be removed to avert poisoning" (TAN). Toasted seeds are edible, the toasting reducing the toxicity (EGG). Javans and Malaysians eat cooked tender leaves (WOI). Madoerese cook young leaves and eat them as seasoning (IHB). Nepalese cook tender shoots as a vegetable (NPM). I have said, and repeat, it's too dangerous for unskilled gringos to take (JAD). 2 seeds purge but 4–5 may cause death! (WBB).

- Ashanti use leaf ashes to extract the guinea worm (KAB).
- Bahamans put sap with sugar on rag to scrub thrush from the tongue (JFM).
- Bayano Cuna use the plant as a purgative (IED).
- Belizeans make a douche for vaginitis by boiling a 3 × 3 inch patch 5 min (AAB).
- Belizeans apply the clear exudates from stems and leaf stalks to infantile thrush and stomatitis (AAB).
- Colombians take the leaf decoction for VD (JFM).
- Cubans apply sap to dermatosis, sores, toothache, and wounds (JFM).
- Darien Panamanians apply gently boiled leaves to external ulcers, taking internally for jaundice (IED).
- Dominicans apply freshly crushed leaves to sores and wounds (VOD).
- Dominicans use the root tea for dysentery and gonorrhea (AHL).

- Haitians apply fresh latex to burns, dermatosis, infections, and thrush (VOD).
- Haitians use the leaves or leaf decoction for bruises, dermatosis, eczema, edema, flu, fever, inflammation, and sores (VOD).
- Indonesians use the leaves on hard tumors (JLF).
- Mauritians use the seed oil for tumors (JLF).
- Nepalese apply bark juice or latex to boils, burns, eczema, inflammation, pimples, ring-worm, and scabies (NPM).
- Nepalese take ~1 tsp bark juice with milk or hot water 3×/day for malarial fevers (NPM).
- Nepalese take 1 cotyledon 2×/day for constipation (NPM).
- Nicaraguan Creoles take leaf and sap decoction for diarrhea, fever, burns, worms and intestinal parasites, VD, and as a purgative and laxative (IED).
- Palikur use latex as a dental analgesic (GMJ).
- Peruvians take the latex 3×/day for cancer, with water for gastric ulcers, and apply latex to burns, candida, caries, fungus, hemorrhoids, thrush, tonsilitis, and toothache (EGG; MD2).

#### Downsides:

Too poisonous to toy around with. Poisoning may cause amnesia, convulsions, delirium, diarrhea, nausea, vertigo, and visual disturbances (MAD). As of July 2007, the FDA Poisonous Plant Database listed 98 titles alluding to toxicity of this species.

#### Extracts:

Aqueous branch extracts strongly inhibited HIV-induced cytopathic effects (JE64:15; X10075118). Too often, I report pro- and anti-activities, in this case procoagulant and anticoagulant. Whole latex significantly reduced clotting time of human blood while diluted latex prolonged the clotting time: at high dilutions the blood did not clot at all (X14522439). AM-1 (made from *Jatropha curcas*, *Gossypium hirsutum*, *Physalis angulata* and *Delonix regia*) eliminated malaria parasites, *Plasmodium falciparum* and *P. malarie*, from the peripheral blood of patients with malaria, with no observed undesired effects in patients or labs. The AM-1 showed differential effect on c P450 isozymes (X12820245). *J. curcas* also provides a cheap disinfectant and malaria vector control agent (X10493051). LD50 (ethanolic extract) 500 mg/kg ipr mus (MPI).

### BLACK PHYSICNUT (*Jatropha gossypifolia* L.) X

#### EUPHORBIACEAE



#### Illustrations:

fig 84 (MPG)

**Notes:**

Associated with the deity Omolu in the Afro-Brazilian Candomblé religion, wherein used to remove the evil eye (VOD quoting Voeks, 1997).

**Common Names:**

Bellyache Bush (Eng.; Jam.; AVP; USN); Black Physicnut (Eng.; CR2; USN); Cassaba Marble (Ma.; JFM); Cassavestrauch (Ger.; AVP); Chihí Shikuiji (Ese'ejá; MD2); Chuvanna Kodala Vanakku (India; NAD); Cottonleaf Physicnut (Aust.; Eng.; USN); Erva Purgante (Brazil; MPG); Flaira (Ma.; JFM); Frailecillo (Col.; Cr.; Cuba; Ven.; MPG); Frailejón (Col.; MPG); Herbe a Mal de Ventre (Fr. Guy.; AVP); Hierba del Frailea (Ma.; JFM); Hiquereta Cimarrona (Ma.; JFM); Hiquerito Cimarrona (Dor.; AVP); Huiso Pionis (Shipibo/Conibo; EGG; MD2); Jalapao (Brazil; MPG); Jaquillo (Col.; MPG); Jarak China (Java; IHB); Jarak Kosta Merah (Java; IHB); Jarak Landi (Java; IHB); Jarak Ulung (Sumatra; IHB); Joshin Pionis (Shipibo/Conibo; MD2); Kinidazougoui (Sudan; AVP); Kishka (Ulwa; ULW); Mala Muger (Mex.; AVP); Mamoninha (Brazil; MPG); Mandioca Brava (Dor.; AVP); Médecin (Haiti; AHL); Médecinier (Haiti; AHL); Médecinier a Feuilles de Cotonnier (Fwi.; AVP); Médecinier Barachin (Haiti; AHL; AVP); Médecinier Batard (Guad.; Haiti; Mart.; AHL); Médecinier Beni (Creole; Guy.; GMJ); Médecinier des Barriers (Fwi.; AVP); Médecinier d'Inde (Haiti; AHL); Médecinier Rouge (Guad.; Guy.; Mart.; AVP; GMJ); Medsiyen Barachen (Creole; Haiti; VOD); Meksin (Palikur; GMJ); Metsien (Haiti; AHL); Moussara (Haiti; AHL); Papaye Sauvage (Haiti; AHL); Paroty Grass (Creole; Nic.; IED); Petit Mapou (Haiti; AHL); Petit Médecinier (Haiti; AHL); Physic Nut (Eng.; VOD); Piao Roxo (Brazil; FT74:650); Pinhao de Purga (Brazil; AVP); Pinhao Roxo (Brazil; MPB); Piño Carai Ibai (Bol.; Chiriguano; DLZ); Piñoncitos (Bol.; DLZ); Piñón (Sp.; EGG); Piñón Colorado (Sp.; EGG; MD2); Piñón de España (Dor.; Sp.; AHL); Pinonisi (Piro; EGG; RAR); Piñón Negro (Bol.; Peru; Sp.; DLZ; EGG; LOR; MDD; USN); Piñón Rojo (Sp.; EGG); Piñón Winshi (Amahuaca; MD2); Pinyonisi (Piro; EGG; RAR); Purga de Fraile (Col.; MPG); Purga de Juane (Dor.; AVP); Quelite de Fraile (Nic.; MPG); Raiz du Teiu (Brazil; MPG); Raiz de Teu (Ma.; JFM); Sabu Dang (Thai; IHB); Saida (Ma.; JFM); Sampere Yri (Sudan; AVP); San Juan de Cobre (Cuba; MPG); Seyda (Ma.; JFM); Sibidigua (Ven.; AVP); Sividigua (Ma.; JFM); Spanish Physic Nut (Eng.; AVP); Tabaya (Sp.; AVP); Tartola (Ma.; JFM); Tatua (Dor.; AHL); Tuatua (Col.; Cuba; Dor.; Ven.; AHL; AVP; MPG); Wap Wapa (Ese'ejá; MD2); Wild Cassava (Eng.; Jam.; AVP); Wild Physic Nut (Ma.; JFM); Wo'o (Ese'ejá; MD2); Yuquilla (Peru; EGG; SOU).

**Activities:**

Allergenic (f; CRC); Anthelmintic (f; MPG); Antiedemic (f; SOU; VOD); Antidote (hippoman) (f; CRC; EGG); Antiinflammatory (f; GMJ; VOD); Antirheumatic (f; FT74:650); Antiseptic (1; CRC; WOI); Antispasmodic (1; MPG); Antiviral (1; MPG); Bactericide (1; CRC; X12843600); Cicatrizant (f; DAV); CNS-Deobstruent (f; MPB); Depressant (1; MPG); Depurative (f; CRC); Diuretic (f; FT74:650; VOD); Ecboolic (f; CRC); Emetic (f1; CRC; MD2); Emmenagogue (f; JFM); Febrifuge (f; MPI); Hemostat (f; EGG; JFM); Hypoglycemic (1; MPG); Hypotensive (1; FT74:650); Hypothermic (1; MPI); Laxative (f1; CRC; EGG; ULW); Molluscicide (f; MPG); Piscicide (1; CRC; EGG; X12243329); Plasmodicide (1; MPG); Poison (1; CRC); Purgative (f1; CRC; MD2; ULW; VOD); Sedative (1; ZUL); Uterotonic (f; MPG); Vasorelaxant (1; FT74:650); Vulnerary (f; MPG).

**Indications:**

Adenopathy (f; EGG); Anorexia (f; MPG); Arthrosis (f; MPG); Asthma (f; CRC; EGG); Bacteria (1; CRC; X12843600); Bleeding (f; EGG; IED; JFM); Bruises (f; EGG; JFM); Burns (f; CRC; DAV; EGG; MD2); Cancer (1; CRC; JLH); Cancer, lung (1; MPG); *Candida* (f; MD2); Carbuncles (f; CRC); Carcinoma (1; CRC); Cardiopathy (1; FT74:650); Catarrh (f; MPG); Childbirth (f; VOD); Cholecocystosis (f; JFM; MPG); Colds (f; CRC); Colic (f; JFM); Con-



stipitation (f1; CRC; EGG; IED; ULW); Convulsions (1; MPG); Coughs (f; EGG); Dermatitis (f; CRC; EGG; ULW); Diabetes (f1; CRC; IED; MPG); Diarrhea (f; CRC; EGG; IED; ULW); Dropsy (f; AHL; CRC); Dyspepsia (f; CRC; IED); Eczema (f; AHL; CRC; VOD); Edema (f; SOU; VOD); Enterosis (f; MD2; VOD); Erysipelas (f; DAV; MPB); *Escherichia* (1; CRC); Fever (f1; MD2; MPI); Flu (f; DAV); Fracture (f; JFM); Fungus (f; MD2); Gall (f; CRC); Gastrostis (f; EGG; IHB; JFM; MD2); Gingivitis (f; EGG); Glossosis (f; CRC); Headache (f; DAV; EGG; MD2); Hematochezia (f; CRC; JFM); Hemorrhage (f; EGG); Hemorrhoids (f; CRC; DLZ); Hepatitis (f; CRC); High Blood Pressure (1; FT74:650); Infection (f1; CRC; EGG; IED; MD2; ULW; WOI; X12843600); Inflammation (f; EGG; GMJ; MD2; VOD); Insomnia (1; ZUL); Itch (f; JFM); Leprosy (f; CRC; IHB); Leukemia (1; CRC; MPG); Leukorrhea (f; CRC; EGG; MPG); Mastitis (f; CRC); Mumps (f; EGG); Mycosis (f; EGG); Nephrosis (f; MPG); Prickly Heat (f; CRC); Proctitis (f; CRC); Prostatitis (f; EGG); Puerperium (f; VOD); Pulmonitis (f; MD2); Respiritis (f; MPG); Rheumatism (f; FT74:650; MD2; MPB); Sarcoma (1; JFM; MPG); Snake Bite (f; JFM); Sores (f; AHL; CRC; IED); Sore Throat (f; CRC; MD2); Spasms (1; MPG); *Staphylococcus* (1; CRC); Stomachache (f; CRC; DAV; EGG; IHB; JFM); Stomatitis (f; EGG; JFM); Swelling (f; DAV; SOU); Thrush (f; MD2; UPW); Toothache (f; EGG; SKJ); Tumors (f1; DAV; EGG); Ulcers (f; CRC; MD2); Urogenitis (f; CRC); Vaginitis (f; EGG); VD (f; CRC; DLZ; MD2); Viruses (1; MPG); Worms (f; MPG); Wounds (f; CRC; DAV).

### Dosages:

FNFF = !? Some Latinos eat leaves in salads to overcome biliousness, constipation, dyspepsia, and fever (JFM).

- Antilleans use the leaves as febrifuge in malaria (WOI).
- Arubans gargle with root decoction and take peeled stem decoction for throat cancer (JFM).
- Brazilians and Guatemalans believe the root is good for snake bite (JFM).
- Caicos Islanders take leaf decoction to stop diarrhea and apply to prickly heat (JFM).
- Costa Ricans take leaf decoction for hepatitis and VD (JFM).
- Cubans take root for enterosis, the decoction topically for dermatitis and sores (JFM).
- Curaçaoans take leaf tea for cholecystitis, colic, constipation, diabetes, gastric ulcers, and leukorrhea, the root decoction with salad oil for hematochezia and stomachache (JFM).
- Dominicans stew the mashed pods in castor oil or sweet oil and plaster on sores (VOD).
- Haitians take leaf decoction or juice as antiedemic, antienterotic, antiinflammatory, and diuretic, using topical as a vulnerary (VOD).
- Jamaicans (before 1700) used a decoction of 7–21 leaves for “dry bellyache” (IHB).
- Madoerese take 20 roasted seed as adult purge (IHB).
- Madre de Dios Peruvians bathe in urine with lemon for fever and headache (MD2).
- Madre de Dios Peruvians plaster the leaves with tobacco onto inflamed throat (MD2).
- Madre de Dios Peruvians take the resin with plantain (*Musa*) for gastric ulcers and pulmonary hemorrhage (MD2).
- Nicaraguan Creoles take leaf decoction for diabetes, diarrhea, digestive disorders, infections, skin rashes and sores, cuts, and hemorrhage, and as a purgative and laxative (IED).
- Peruvians apply mashed leaves to head for headache (RAR).
- Peruvians apply the latex to burns, cuts, ringworm, skin fungi, and toothache (EGG; MD2).
- Peruvians said to apply juice from petiole in gingivitis (EGG).
- Peruvians suggest the bark decoction, with *Malva* and *Plantago*, orally and in vaginal washes for leucorrhea (EGG).

- Peruvians suggest the leaf decoction with lemon for stomachache (EGG).
- Peruvians suggest the leaf decoction with *Malva* and lemon for prostatitis (EGG).
- Peruvians take latex with lemon juice for asthma and cough (EGG).
- Venezuelans use the roots for leprosy and snake bite (WOI).

**Downsides:**

Not covered (AHP; KOM; PHR). Seeds emetic, folklorically reported to cause insanity (KAB). As of July 2007, the FDA Poisonous Plant Database listed 28 titles alluding to toxicity of this species.

**Extracts:**

Ethanol extracts (125–250 mg/kg) are orally hypotensive in conscious normotensive rats, and vasorelaxant to rat mesenteric rings (FT74:650). LD50 (ethanolic extract) 1,000 mg/kg ipr mus (MPI).

## HUANARPO MACHO (*Jatropha macrantha* Müll. Arg.) +

### EUPHORBIACEAE

**Synonyms:**

*Jatropha aphrodisiaca*; fide (RA2).

**Notes:**

The doctrine signature suggests that the rather phallic clubby stem ends would be used in erectile dysfunction, or so the story goes (RA2).

**Common Names:**

Barbasco (Peru; Sp.; EGG); Guarnarpo Macho (Sp.; RA2); Higos del Duende (Sp.; RA2); Huanarpo (Sp.; RA2); Huanarpo de Canta (Sp.; EGG; RA2); Huanarpo Macho (Sp.; RA2); Mitocala (Sp.; RA2); Palo de Grado (Peru; Sp.; EGG; RA2); Peruvian Viagra (Eng.; RA2); Sangre de Drago (Peru; Sp.; EGG; RA2); Simayuca (Sp.; RA2); Urco Huanarpo (Peru; Sp.; EGG; RA2); Vanarpo (Sp.; RA2); Wanarpo (Sp.; RA2).

**Activities:**

Adrenergic (1; RA2); Antiaging (1; RA2); Antiarthritic (1; RA2); Antiasthmatic (f; RA2); Antidiabetic (f; RA2); Antioxidant (1; RA2); Antiperoxidant (1; RA2); Antiradicular (1; RA2); Antitussive (f; RA2); Antiulcer (f; RA2); Aphrodisiac (f1; DAV; EGG; RA2); Artemicide (1; RA2); Bradykinin-Regulator (1; RA2); Cardioprotective (1; RA2); Cytotoxic (f; RA2); Depurative (f; RA2); Nervine (f; RA2); Radioprotective (1; RA2); Sedative (f; RA2); Stimulant (1; RA2); Testosteronigenic (1; RA2; X14600359); Tonic (f; RA2).

**Indications:**

Aging (1; RA2); Arthritis (1; RA2); Asthma (f; RA2); Bronchosis (f; RA2); Cardiopathy (1; RA2); Coughs (f; RA2); Diabetes (f; RA2); Impotence (f1; DAV; EGG; RA2); Insomnia (f; RA2); Nervousness (f; RA2); Pulmonosis (f; RA2); Respirosis (f; RA2); Spermatorrhoea (f; RA2); Ulcers (f; RA2); Wrinkle (1; RA2).

**Dosages:**

FNFF = ? 2–3 g capsule 2×/day (RA2); 1 cup shoot decoction 2–3×/day (RA2); 3 ml shoot tincture 2×/day (RA2).

- Argentinians believe the plant purifies the blood (RA2).
- Peruvians consider the herb antiasthmatic, antidiabetic, antitussive, aphrodisiac, depurative, and nervine, using for asthma, bronchitis, cough, diabetes, erectile dysfunction, and premature ejaculation (RA2).

**Downsides:**

Though Taylor (2005) reports no downsides, I consider most *Jatropha* spp. to be rather poisonous. As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

Peruvian practitioners claim the herb blocks alpha-adrenoreceptors reducing the effect of hormones that cause vasoconstriction of blood vessels in penile tissues and augmenting the production of norepinephrine which is essential in maintaining erectile function (RA2). Italian researchers noted an extremely wide molecular weight range, from 290, corresponding to catechin, to 3144, corresponding to an oligomer. Condensed tannins have recently been reported to be sexual stimulants (RA2). When given to mice, tests show an increase in testosterone levels (X14600359).

**SPANISH PHYSICNUT (*Jatropha multifida* L.) +  
EUPHORBIACEAE**

**Illustrations:**

fig 154 (WOI); p 421 (LWW); pl 868 (KAB)

**Synonyms:**

*Adenoropium multifidum* (L.) Pohl; fide (LWW).

**Common Names:**

Ârvore de Bálsamo (Brazil; MPB); Ârvore de Coral (Brazil; MPB); Avellano Purgante de Santo Domingo (Sp.; KAB); Bhadradanti (Sanskrit; KAB; WOI); Bouquet Corail (Fr. Guy.; AVP; KAB); Brihaddanti (Sanskrit; KAB; WOI); Cabalongo (Mex.; LWW); Castaño Purgante (Cuba; LWW); Ceibilla (Cuba; LWW); Chicasquil (Cr.; Sp.; AVP; LWW; TAN); Chiniyerandi (Mar.; WOI); Corail (Guad.; Mart.; AVP); Coral (Brazil; Col.; LWW; MPB); Coral dos Jardins (Brazil; MPB); Coralplant (Dwi.; Eng.; Vi.; LWW; USN; VOD); Diez Mandamentu (Dwi.; LWW); Diza Kia Nlembo (Congo; AVP); Don Tomás (Pr.; LWW); Dugdagarbha (Sanskrit; KAB); Emético Vegetal (Ven.; AVP; LWW); Fin Ton (Thai; POR); Flor de Coral (Brazil; Fr.; Por.; AVP; KAB; MPG; USN); French Physicnut (Bar.; Eng.; Jam.; IHB; KAB; LWW; USN); Guchhphala (Sanskrit; KAB); Jampa (Por.; AVP); Jarak China (Java; IHB); Jarak Gurita (Sunda; IHB); Jayavaha (Sanskrit; KAB); Juca Cimarrona (Sp.; AVP); Jyotishhka (Sanskrit; KAB; WOI); Kattunervalam (Tam.; KAB; WOI); Lohong Khvang Kraham (Cam.; KAB); Ma Hung Daeng (Thai; POR); Malaiyamanaku (Tam.; KAB; WOI); Malako Farang (Thai; POR); Maná (Ilo.; Pr.; Tag.; KAB; LWW); Mangá (Pr.; AVP); Manzano (Sp.; AVP); Médecinier Batard (Fr.; KAB); Médecinier des Indes (Haiti; AHL; LWW); Médecinier d'Espagne (Guad.; Mart.; AVP; KAB); Médecinier d'Inde (Haiti; LWW); Médecinier Espagnol (Haiti; AHL; LWW); Médecinier Multifide (Haiti; AVP); Mubono (Congo; AVP); Nguba Nguedi (Congo; AVP); Noisette Purgative (Guad.; Mart.; AVP); Nuez Vómico Cubana (Cuba; AVP); Papaye Sauvage (Haiti; AHL; LWW); Papay Sovaj (Creole; Haiti; AVP; VOD); Petit Médecinier (Fr.; KAB); Physic Nut (Eng.; VOD); Pinol de Cumana (Sp.; KAB); Piñón (Dor.; Peru; Sp.; EGG); Piñón de España (Dor.; AHL; AVP; LWW); Piñón Extranjero (Cuba; Dor.; AHL; LWW); Piñón Vomico (Cuba; LWW); Purgante de España (Sp.; KAB); Simeauvdala (Kan.; KAB); Small Physicnut (Eng.; KAB); Spanish Physicnut (Eng.; Jam.; IHB; LWW; USN); Tártago (Pr.; LWW); Tártago Emético (Col.; Pr.; AVP; LWW); Torota (Sp.; TAN); Tuba (Tag.; KAB); Vilavatharalu (Kan.; KAB); Vilayatharalu (Kan.; Mysore; KAB; WOI); Virechani (Sanskrit; KAB; WOI); Vishabhadra (Sanskrit; KAB; SKJ); Yuca Cimarrona (Dor.; Sp.; LWW; TAN). (Nscn; American entries diacritically prepared).

**Activities:**

Abortifacient (f; KAB; SKJ); Analgesic (f; KAB); Anticomplementary (1; X2615430); Antidiarrheal (f; EGG); Aphrodisiac (f; KAB); Bactericide (1; WOI; X11429250); Cathartic (f; UPH); Emetic (f; DAW; KAB; SKJ); Emollient (f; AHL); Febrifuge (f; IED; MPB); Immunomodulator (1; X2682699); Parasiticide (f; MPB; USN); Piscicide (f; WOI); Poison (1; DAW); Purgative (f; EGG; IED; IHB; KAB; MPB; SKJ); Rubefacient (f; MPB); Tonic (f; KAB; WOI).

**Indications:**

*Bacillus* (1; X11429250); Bacteria (1; WOI; X11429250); Cancer (f; JLH); Cancer, nose (f; JLH); Colic (f; WOI); Constipation (f; EGG; IHB; UPH; WOI); Dermatitis (f; DAW; KAB; SKJ); Diarrhea (f; EGG); Dyspepsia (f; WOI); *Escherichia* (1; WOI); Fever (f; IED; MPB); Hemorrhoids (f; KAB); Impotence (f; KAB); Infection (1; WOI; X11429250); Leprosy (f; IHB; WOI); Pain (f; KAB); Parasites (f; MPB; USN); Rhinosis (f; JLH); Scabies (f; KAB; SKJ; WOI); Scar (f; VOD); Sores (f; JLH; KAB; MPB; SKJ; VOD; WOI); Splenosis (f; KAB); *Staphylococcus* (1; WOI; X11429250); Syphilis (f; MPB); VD (f; DAW; MPB; VOD); Wounds (f; DAW; KAB; MPB; SKJ).

**Dosages:**

FNFF = ! I'm skeptical but Tanaka (1976) says the leaves and roots are edible, even the nut "though the heart of the kernel should be removed." Long tuberous roots can be eaten after roasting, like tapioca; young leaves apparently cooked and eaten by Costa Ricans and Mexicans (IHB; WOI).

- Brazilians suggest the roasted seed for syphilis (MPB).
- Cambodians apply the latex to sores and wounds (KAB).
- Cambodians use leaves for scabies (KAB).
- Cambodians use the seed oil as abortifacient (KAB).
- Carib Indians mix latex with soap and rum to treat cancerous ulcers (JLH).
- French Guianans use fresh seed as emetic and purgative (KAB).
- Haitians apply the latex to scars and sores (VOD).
- Haitians apply the seed oil to skin parasites (VOD).
- Haitians take roasted seed infusion for VD (VOD).
- Indochinese take dry root decoction for colic and dyspepsia and as a tonic (WOI).
- Malaysians use the seed oil (also used as lamp oil) to treat leprosy (IHB).
- St. Vincent islanders use the latex for nasal cancer (JLH).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed 37 titles alluding to toxicity of this species.

## ANDEAN WALNUT (*Juglans neotropica* Diels) ++

### JUGLANDACEAE

**Synonyms:**

*Juglans columbiensis* Dode; *J. honorei* Dode; fide (USN).

**Common Names:**

Andean Walnut (Eng.; USN); Ecuador Walnut (as *J. honorei*) (Eng.; USN); Nogal (Sp.; USN).

**Activities:**

Antiviral (1; X11535363); Candidicide (1; X11535363).

**Indications:**

*Candida* (1; X11535363); Infection (1; X11535363); Viruses (1; X11535363).

**Dosages:**

FNFF = !!

**Extracts:**

Methanolic extract exhibited candidicide and viricidal activity (X11535363).

## DEATH ANGEL (*Justicia pectoralis* Jacq.) +

### ACANTHACEAE

**Illustrations:**

fig 134 (DAV); p 3 (MPG); p 44 (SAR)

**Synonyms:**

*Dianthera pectoralis* Murr.; *Rhytoglossa pectoralis* Nees; *Stethoma pectoralis* Jacq.; fide (MPG, JTR).

**Common Names:**

Ancu (Ven.; MPG); Angel of Death (Eng.; VOD); Azul (Peru; EGG; RAR); Balsam Vine (Bel.; BNA); Bolek Hena (Creole; Haiti; VOD); Carmantine Pectorale (Haiti; AVP); Carmentin (Creole; Guy.; GMJ); Carpintera (Cuba; Dor.; AHL; AVP; JTR); Cerebril (Cr.; MPG); Chapantye (Creole; Haiti; VOD); Cramentin (Creole; Guy.; GMJ); Curi (Dor.; AVP); Curia (Dor.; Pr.; Sp.; Ven.; AHL; AVP; MPG; USN); Curia Blanca (Ven.; MPG); Cuya Cuya (Peru; EGG; RAR); Death Angel (Eng.; CR2; USN); Herbe a Charpentier (Fwi.; AVP); Herbe au Charpentier (His.; AHL); Herbe Charpentier (Creole; Guy.; GMJ); Hierba de San Antonio (Ven.; MPG); Lluichu Lancetilla (Peru; Sp.; EGG; LOR); Mashihiri (Waika; SAR); Minoei (Andoke; SAR); Patco (Peru; EGG; RAR); Pili (Wayāpi; GMJ); Piliee (Wayāpi; GMJ); Pinichi (Piro; EGG; RAR); Pinipisa (Peru; Sp.; EGG; LOR); Quali Nahenora (Ven.; MPG); Suelda con Suelda (Ven.; MPG); Suepan (Palikur; GMJ); Te Criollo (Cuba; JTR; MPG); Tila (Cuba; AVP; RyM); Tilo (Cuba; JTR); Tilo Colombiano (Cr.; MPG); Tilo Criollo (Cr.; MPG); Trevo Cumaru (Por.; GMJ); Yerba Carpintera (Dor.; AHL; AVP); Yoman Rao (Peru; Sp.; EGG; LOR); Zerb Charpentier (Creole; Guy.; GMJ); Z'herbe au Charpentier (His.; AHL).

**Activities:**

Abortifacient (1; FNF); Analgesic (f1; VOD; X10771205); Antiaggregant (1; FNF); Antie-demic (1; FNF); Antihistaminic (1; FNF); Antiinflammatory (f1; DAV; FNF; X10771205); Antilymphedemic (1; FNF); Antimelanomic (1; FNF); Antimetastatic (1; FNF); Antimi-totic (1; FNF); Antimononucleotic (1; FNF); Antimutagenic (1; FNF); Antimycoplasmotic (1; FNF); Antipsittacotic (1; FNF); Antipsoriac (1; FNF); Antiseptic (1; FNF); Antispas-modic (1; FNF); Antitumor (f1; FNF); Aphrodisiac (f; CRC; EGG; JFM; RAR; VOD); Bactericide (1; FNF); Bechic (f; GMJ); Bronchodilator (1; X10771205); Candidicide (1; FNF); Choleric (1; FNF); Cicatrizant (f1; MPG; VOD); Cytotoxic (1; X3404155); Digestive (f; JFM); Emetic (1; FNF); Emmenagogue (f1; FNF; MPG); Estrogenic (1; FNF); Expectorant (f; JFM); Febrifuge (f; RAR); Fungicide (1; FNF); Hallucinogen (f1; CRC; GMJ; JFM; VOD); Hemostat (f; CRC); Hepatoprotective(1; FNF); Hepatotoxic (1; FNF); Hypoglycemic (1; FNF); Immunostimulant (1; FNF); Insecticide (1; X10363843); Mos-quitocide (1; X10363843); Myorelaxant (f1; MPG; X6097774); Narcotic (f1; CRC; DAV; RAR); Neurotropic (1; MPG); Pectoral (f; DAV; JFM); Resolvent (f; CRC); Sedative (f12; JFM; MPG); Sudorific (f; JFM); Tonic (f; VOD); Tranquilizer (f; MPG); Vulnerary (f1; GMJ; JFM; VOD; X3776185).

**Indications:**

Amenorrhea (f1; FNF; MPG); Anemia (f; VOD); Aphtha (f; EGG; RAR); Asthma (f; VOD); Bacteria (1; FNF); Bilioussness (1; FNF); Bleeding (f; CRC; MPG; VOD); Brucellosis (1; FNF); Cachexia (f; CRC); Cancer (1; FNF); Cancer, colon (1; FNF); Cancer, kidney (1; FNF); Cancer, stomach (1; FNF); Cardiopathy (f; JFM); Cataracts (1; FNF); Catarrh (f; JFM); Chest Colds (f; CRC; JFM); Chills (f; VOD); Colds (f1; CRC; FNF; JFM); Colic (f; JFM); Coughs (f; CRC; JFM); Cramps (1; FNF); Diabetes (1; FNF); Dyspepsia (f1; FNF; JFM); Edema (f1; FNF); Enterosis (f1; FNF); *Escherichia* (1; FNF); Fever (f; CRC; DAV; EGG; JFM); Flu (f1; CRC; FNF; JFM); Fracture (f; VOD); Fungus (1; FNF); Gastrosis (f1; DAV; FNF; GMJ; VOD); Gout (f1; FNF; MPG); Headache (f1; DAV; EGG; FNF); Hematoma (f; DAV; GMJ); Hepatosis (f1; FNF; MPG); Hyperglycemia (1; FNF); Immunodepression (1; FNF); Impotence (f; RAR); Infection (f1; FNF); Inflammation (f1; DAV; FNF; MPG; X10771205); Insomnia (f12; MPG); Leg Ache (f; JFM); Melanoma (1; FNF); Metastasis (1; FNF); Mycoplasma (1; FNF); Mycosis (1; FNF); Nausea (f; CRC; JFM); Nervousness (f; MPG); Pain (f1; DAV; FNF; RAR; VOD; X10771205); Pneumo-nia (f1; CRC; DAV; FNF; JFM); Psittacosis (1; FNF); Psoriasis (1; FNF); Pulmonosis (f; CRC; JFM; SAR); Respirosis (f; EGG; JFM); Rheumatism (f; MPG); Sprains (f; VOD); *Staphylococcus* (1; FNF); Stomachache (f1; AHL; CRC; DAV; GMJ; JFM; VOD); Toxo-plasmosis (1; FNF); Tuberculosis (f; JFM); Wounds (f; CRC; JFM); Yeast (1; FNF).

**Dosages:**

FNFF = X.

- Barbadians take the sweetened decoction as an expectorant (JFM).
- Colombian Native Americans take whole plant decoction for pulmonoses, esp. pneu-monia (SAR).
- Cubans use the tea as a cardiac, nervine, pectoral, and sedative (JFM; JTR).
- Dominicans take leafy shoot infusion for chills and dyspepsia (VOD).
- Dominicans take syrup (from leaf decoction) for fractures and sprains (VOD).
- Dominicans take syrup for chest ailments and stomachache (AHL).
- Guadelupans mix the decoction with culinary oil for chest ailments (JFM).
- Haitians apply crushed leaves as cicatrizant and vulnerary (VOD).
- Haitians use leaf tea or syrup of leaves and roots for gastrosis and stomachache (VOD).

- Haitians use plant tea (with leaves of *Croton flavens*, *Persea americana*, and *Sphagneti-cola trilobata*) for anemia and hemorrhage (VOD).
- Jamaicans mix with *Cuscuta*, orange, and sugar for infant colic and tuberculosis (JFM).
- Panamanians suggest the decoction for leg ache and stomachache (JFM).
- Peruvians suggest inhaling the shoots for headache and other pains (EGG).
- Surinamese drink decoction 3×/day for cold and cough (JFM).
- Trinidadans value the decoction for chest cold, cough, fever, flu, pneumonia, and vomit-ing (JFM).

**Downsides:**

Not covered (AHP; KOM; PHR). Theoretically the approximate LD50 is more than 10 g/kg, which is essentially non-toxic (MPG). As of July 2007, the FDA Poisonous Plant Database listed five titles alluding to toxicity of this species.

**Extracts:**

LD50 >4,000 mg/kg ipr rat; 1,344 mg/kg ivn rat. At 200 mg/kg orl mus, the coumarin containing hydroethanolic extract had antinociceptive, antiinflammatory, and bronchodilator activities (X10771205).

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# K

## GREATER CALTROP (*Kallstroemia maxima* (L.) Hook. & Arn.) + ZYGOPHYLLACEAE

### Synonyms:

*Tribulus maximus* L. (basionym); fide (USN).

### Notes:

Sometimes confused with *Tribulus*, both *Kallstroemia* and *Tribulus* are called “abrojo” and “câpre” in Hispaniola, and both are marginally edible weeds reported to contain the presteroid diosgenin. *Tribulus terrestris* is being overpromoted as the herbal viagra; the “greater caltrop” could be a marginally edible poor man’s spinach, if not viagra. Austin (2004) distinguishes the two genera in his area:

Carpels 8–12, tuberculate in fruit . . . . . *Kallstroemia*  
Carpels 4–5, prickly in fruit . . . . . *Tribulus*

Many of the common names, e.g., jimiri and tlalcacauatl, allude to the presumption that these plants harbor chiggers (AUS).

### Common Names:

Abrojillo (Col.; Cuba, Dor.; Nic.; Pr.; AUS); Abrojo (Cuba; Dor.; AVP); Attaraya (Pr.; AUS); Batatilla (Dor.; AHL; AUS); Caldero (Pr.; AUS); Caltrop (Bah.; Eng.; Pr.; AUS); Câpre Maron (Haiti; AHL; AUS); Centipede Root (Eng.; Vi.; AVP); Chax Chauxnuc (Maya; Mex.; AUS); Cresson Courant (Guad.; Mart.; AUS; AVP); Golondrina (Sal.; AUS); Greater Caltrop (Eng.; JFM); Guia de Parra (Sal.; AUS); Hierba de Pasma (Ven.; AVP); Hierba de Pollo (Col.; Pan.; Sal.; AUS); Jepo Longlo (Vi.; AUS); Jimiri (Maya; Mex.; AUS); Machoucherie (Dom.; AUS); Mata (Cr.; AUS); Ni (Huastec; Mex.; AUS); Pale-Flowered Turkey Blossom (Jam.; AUS); Parsley (Cayman I.; AUS); Patagon (Mart.; AUS); Perrito (Col.; AUS); Police Macca (Jam.; AUS); Pompier Courant (Ma.; JFM); Pourpier Bâtard (Guad.; Mart.; AUS; AVP); Pourpier Courant (Mart.; AUS); Pourpier Rampant (Mart.; AUS); Sanguinaria (Dor.; AHL); Shanapmucui (Bel.; AUS); Talacacao (Cr.; Huastec; AUS; AVP); Taraya (Sal.; AUS); Tlalcacauatl (Mex.; AUS); Verdolaga (Cr.; Mex.; Pan.; Sal.; Sp.; Ven.; AUS; USN); Verdolaga Blanca (Sal.; AUS); Verdolaga de Abrojo (Pr.; AVP); Verdolaga de Caballo (Sal.; AUS); Verdolaga de Monte (Sal.; AUS); Verdolaguita (Sal.; AUS); Xichilak (Maya; Mex.; AUS); Yerba de Pasma (Sp.; JFM). (Nscn; American entries diacritically prepared).

### Activities:

Diuretic (f; AUS; JFM); Laxative (f; AUS; JFM); Poison (f; AUS); Purgative (f; AUS; HOC).

### Indications:

Abscesses (f; AUS); Boils (f; AUS); Cancer (f; AUS); Constipation (f; AUS; JFM); Cramps (f; JFM); Dermatitis (f; AHL; AUS; HOC); Itch (f; AHL; AUS; JFM); Paralysis (f; JFM); Sores (f; AUS); Strangury (f; AUS; JFM); Tetanus (f; JFM); Tumors (f; AUS).

K



**Dosages:**

FNFF = ! Salvadorans and Colombians cook young shoots as food in times of scarcity (AUS).

- Colombians view the herb as diuretic and laxative (AUS; JFM).
- Costa Ricans apply crushed leaves to boils and other sores, even tumors (AUS).
- Cubans and Dominicans suggest decoction or tea for itch and other dermatoses (AUS).
- Venezuelans poultice the plant on abscesses and tumors (AUS).
- Venezuelans once took tea or decoction for cramps, paralysis, and tetanus (JFM).

**Downsides:**

Grazing animals are sometimes poisoned by eating large quantities of the herb (AUS). Still, Morton (1977, 1981) says that Peruvians feed the plant to livestock, but this is more probably *K. parviflora*. As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

Plant contains diosgenin and saponins.

## RHATANY (*Krameria lappacea* (Dombey) Burdet & B. B. Simpson) ++

### KRAMERIACEAE

**Synonyms:**

*Krameria iluca* Phil.; *K. triandra* Ruiz and Pav.; fide (USN).

**Common Names:**

Mapato (Sp.; USN); Ratanhia (Ger.; USN); Rhatany (Eng.; USN); Rhatany-Root (Eng.; USN).

**Activities:**

Allergenic (1; APA); Antihemorrhagic (1; PNC); Antiinflammatory (2; KOM); Antiseptic (1; APA; PH2); Astringent (2; APA; KOM; PH2); Expectorant (f; EFS); Fungicide (1; PH2); Styp-tic (1; PNC); Vulnerary (1; PNC).

**Indications:**

Angina (f; HHB); Bleeding (1; MAD; PH2; PNC); Bronchosis (f; MAD); Canker Sores (1; APA); Chilblains (1; PNC); Convulsions (f; MAD); Cramps (f; MAD); Diarrhea (1; APA; MAD; PHR); Dysentery (1; APA); Dyspepsia (f; MAD); Enterosis (1; APA; PHR; PH2); Epistaxis (1; MAD); Fungus (1; PH2); Gastrosis (1; APA; HHB); Gingivosis (1; APA; PHR; PH2); Glossosis (1; APA; HHB); Hematuria (1; HHB); Hemorrhage (1; PNC); Hemorrhoids (1; APA; HHB; PNC); Infection (1; APA; PH2); Inflammation (2; KOM; PH2); Leukorrhea (1; DEP; MAD); Menorrhagia (1; PNC); Mucososis (2; KOM; PH2); Nephrosis (f; HHB); Neuralgia (f; MAD); Ophthalmia (f; DEP); Paradentosis (f; HHB); Pharyngosis (2; APA; KOM; PH2); Proctosis (1; PH2); Sores (1; APA); Sore Throat (1; APA); Stomatosis (2; APA; KOM; PH2); Toothache (f; HHB; MAD); Urethrosis (1; HHB; PH2); Uterosis (1; PH2); VD (f; MAD); Wounds (1; APA; PNC).

**Dosages:**

FNFF = ? 0.5–1.5 g powdered bark (HHB); 1 tsp chopped root/glass water, gargle 2–3×/day (APA); 1 g dry root; 1.5–3 g root (PH2); 0.3–1 g dry root extract (APA; PNC); 2–4 ml root tincture (PNC); 1–2 tsp tincture/glass water (APA); 5–10 drops tincture/glass water, 2–3×/day (KOM); 30 drops tincture/glass water as a gargle (HHB); 10 drops opium tincture and 20 drops rhatany tincture 3–5×/day for gastrosis (HHB).

**Downsides:**

Class 1. Commission E discourages use beyond two weeks unless so advised by a physician (KOM). Commission E reports root permitted for local use in the mouth only (KOM). No counter-indications, adverse effects, or interactions except for rare allergic mucosal reactions. Other sources report undiluted tincture may produce burning and local irritation (AEHD; KOM). Undiluted tinctures may cause local irritation (AHP). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). Internal application may induce digestive complaints due to antiseoretogogue activity (PHR; PH2). As of July 2007, the FDA Poisonous Plant Database listed six titles alluding to toxicity of this species.



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# L

## LANTANA (*Lantana camara* L.) + VERBENACEAE



### Illustrations:

pl 271 (DAG)

### Synonyms:

*Lantana aculeata* L.; *L. camara* var. *nivea* (Vent.) L. H. Bailey; *L. hybrida* hort.; *L. nivea* Vent.

### Notes:

In the Afro-Brazilian Candombie religion, yellow-flowered forms are associated with the deity Oxum, white flowered forms with Oxalá (VOD). The lateral stigma secretes a substance visited by tiny insects; nectary small but often filling the tube with nectar. Hummingbirds visit flowers for nectar, the fruits are taken by flycatchers, honeycreepers, manakins, and tanagers (TBC). 1-Octen-3-ol and beta-caryophyllene from lantana flowers and foliage attract tsetse flies in Africa (X15037092).

### Common Names:

Alantana (Mex.; AVP); Alfombrillo Hedionda (Mex.; JFM; JTR); Aya Albaca (Peru; Sp.; LOR; MDD); Aya Albahaca (Peru; EGG); Aya Machana (Peru; Que.; DLZ; SOU); Aya Manchana (Peru; EGG; RAR); Bandera Español (Pan.; TBC); Bigleaf Sage (Ma.; JFM); Big Sage (Ma.; JFM); Black Sage (Ma.; JFM); Bois Corail (Haiti; AVP); Bois Genou (Mart.; AVP); Bonbongnin (Haiti; AVP); Bonbonnier (Haiti; AVP); Bonbonyen (Creole; Haiti; VOD); Bubita Negra (Ma.; JFM); Buzuca (Dor.; AVP); Camará (Arg.; Brazil; Pan.; AVP; MPB; TBC); Camara de Chumbo (Ma.; JFM); Camara de Espinho (Ma.; JFM); Camara Vermelho (Brazil; JFM; JTR); Cambara (Arg.; Brazil; AVP; MPB); Cambará-de-Cheiro (Brazil; Por.; USN); Cambara de Chumbo (Brazil; Por.; MPB; USN);

Cambara de Espinho (Brazil; Por.; MPB; USN); Cambara Juba (Brazil; Por.; MPB; USN); Cambará-Miúdo (Brazil; Por.; USN); Cambara Verdadeira (Ma.; JFM); Cambará-Verdadeiro (Brazil; Por.; USN); Cambara Vermelho (Brazil; AVP); Cambarazinho (Brazil; Por.; USN); Cambaro de Cheiro (Por.; GMJ); Cariaquillo (Pr.; AVP); Cariaquillo de Santa Maria (Pr.; AVP); Cariaquito (Ven.; AVP); Cariaquito Blanco (Ven.; AVP); Cariaquito Colorado (Ven.; AVP); Cariaquito de Sabana (Ven.; AVP); Charo Bera (Shipibo/Conibo; EGG; MD2); Chichiquelite (Pan.; TBC); Chiligua Nigrita (Ma.; JFM); Chumbinho (Brazil; MPB); Cinco Coloraditos (Guat.; Sa.; AVP); Cinco Negritos (Ecu.; Guat.; Hon.; Mex.; Nic.; Pan.; Sal.; AVP; DAG; JTR; TBC); Cino Negritos (Cr.; AVP); Comida de Palomas (Guat.; Hon.; AVP; JTR); Confite (Mex.; JFM; JTR); Confite Negro (Mex.; JFM); Confituria (Mex.; JFM; JTR); Corona del Sol (Mex.; AVP); Corronchocho (Guat.; JFM; JTR); Cuasquito Olorosa (Nic.; AVP); Donyanica (Cuba; AVP); Donyanita (Dor.; AVP); Donya Sanita (Dor.; AVP); Erbe Chumbinho (Por.; GMJ); Erva-de-Grilo (Brazil; Por.; USN); Erva Sagrada (Ma.; JFM); Filigrana (Cuba; AVP; JTR); Filigrana Cimarrona (Cuba; AVP); Filigrana de Pinya (Cuba; AVP); Filigrana Olorosa (Cuba; AVP); Filigrana Salvia (Cuba; AVP); Flor de Duende (Ven.; AVP; JFM); Flor de San Cayetano (Mex.; JFM; JTR); Flor di Sanger (Ma.; JFM); Four Man's Strength (Ma.; JFM); Hamel a Feuilles Velues (Haiti; AVP); Herbe a Plomb (Fwi.; Guad.; AVP); Herva Sagrada (Brazil; AVP); Hierba de Cristo (Mex.; AVP; JFM); Hierba Zorra (Pan.; AVP); Icaquito (Sal.; AVP); Ikilhaxin (Bel.; BNA); Jamaica Mountain Sage (Eng.; TAN); Japutamo Comun (Bol.; DLZ); Jaral (Cr.; AVP); Jarilla (Cr.; AVP); Juanilama (Hon.; AVP); Koorsoe W'wirie (Ma.; JFM); Koorsoe Wiwiiri (Ma.; JFM); Krooman Pawpaw (Eng.; TAN); Lachoy Mawon (Creole; Haiti; VOD); Lampana (Mex.; JFM; JTR); Lantana (Eng.; Mex.; Scn.; AH2; AVP; RAR; USN; VOD); Lantana-Cambará (Brazil; Por.; USN); Lauraimana (Peru; EGG; RAR; SOU); Lawraymana (Callawaya; DLZ); Maiz Zorro (Ma.; JFM); Maria Crabe (Creole; Guy.; GMJ); Marie Crabe (Fr. Guy.; AVP); Marie Crabe Epineux (Fr. Guy.; AVP); Matizadilla (Mex.; JFM; JTR); Mavis (Guad.; AVP); Mille Flores (Guad.; Mart.; AVP); Monjoly (Fr. Guy.; AVP); Monte de Lagolondrina (Ecu.; BEJ); Mora (Mex.; JFM); Morabatindum (Brazil; AVP); Mora de Caballo (Ma.; JFM); Mora de Muerto (Ma.; JFM); Orozuz del Pais (Mex.; JFM; JTR); Palabra de Caballero (Bel.; Ma.; JFM); Palabra de Mujer (Mex.; JFM); Pampa Orégano (Peru; EGG); Pasorin (Pan.; AVP; TBC); Peonia Negra (Mex.; JFM; JTR); Petekin (Bel.; Ma.; BNA; JFM); Petelkin (Ma.; JFM); Poley Cimarrón (Pr.; AVP; JTR); Quita Pesar (Ma.; JFM); Red-Sage (Eng.; USN); Red Sage Bush (Ma.; JFM); Rubban (Creole; Guy.; GMJ); Saemeje (Ese'ēja; MD2); Saemese (Ese'ēja; MD2); Sage (Bel.; Pr.; AVP; BNA); Salsa Brava (Brazil; AVP); Salvia Morado (Arg.; AVP); Salvia Santa (Cr.; AVP); San Agustin Lluyo (Ecu.; BEJ); San Agustin Yullo (Ecu.; BEJ); San Rafaelito (Pan.; AVP; JTR); Santaurio (Cuba; JFM; JTR); Santo Negrito (Cr.; Sal.; AVP; JTR); Sapotillo (Ma.; JFM); Sauge des Montagnes (Guad.; Haiti; AVP; JTR); Siete Colores (Mex.; Peru; SOU); Sincuria (Ma.; JFM); Socorrite (Col.; JFM; JTR); Sonora (Mex.; AVP); Sonora Roja (Mex.; Sp.; JFM; JTR); Sorrito (Col.; AVP); Soterre (Cr.; AVP); Te de Costa (Cuba; AVP); The du Pere Quentin (Guad.; AVP); The Indien (Creole; Guy.; GMJ); Ti Plomb (Guad.; AVP); Ti Soleil (Haiti; AVP); Ti Solèy (Creole; Haiti; VOD); Tres Colores (Mex.; Sp.; JFM; JTR); Tucnai (Peru; EGG; SOU); Tunchi Albaca (Peru; Sp.; EGG; LOR); Uña de Gato (Mex.; Sp.; JFM); Venturosa (Col.; AVP; JTR); Venturosa Colorado (Ven.; JTR); Verbena-Arbustiva (Brazil; Por.; USN); Verbena Morado (Cuba; JTR); Verveine (Creole; Guad.; Guy.; GMJ); We Ach (Bel.; BNA); Wild Mint (Pan.; AVP); Wild Sage (Bel.; Eng.; Fla.; Jam.; Pan.; AAB; AVP; BNA; CR2; USN; VOD); Wu Se Mei (Pin.; DAA); Yakalepiile (Wayãpi; GMJ); Yandurimbiu (Chiriguano; DLZ); Yellow-Sage (Eng.; Ocn.; AH2; USN); Yierba de la Maestranza (Peru; EGG; SOU); Zapotilla (Mex.; JTR); Zaramora (Mex.; JTR); Zeb a Plombe (Haiti; AVP); Zèb a Plon (Creole; Haiti; VOD); Zerb des Putains (Creole; Guy.; GMJ).

**Activities:**

Alexiteric (f; CRC); Amebicide (1; PR14:356); Anthelmintic (1; SAR; ZUL); Antihemorrhagic (1; AAB); Antilymphocytic (1; X9567767); Antimalarial (1; MPG; PR14:356); Antimutagenic (1; X9162177); Antiseptic (f1; CRC; EGG; TRA; WBB); Antispasmodic (f1; LMP; RAR; TRA); Antitussive (f; VOD); Bactericide (1; AAB; FT71:453; WBB); Carminative (f; CRC; VOD; WOI); Cicatrizant (f; VOD); Circuladepressant (1; CRC); CNS-Depressant (1; ZUL); CNS-Stimulant (f; MPG); Depurative (f; CRC; DAV); Diaphoretic (f; CRC; WBB); Digestive (f; CRC; VOD); Diuretic (f; JFM); Emmenagogue (f; CRC; DAV; JFM); Expectorant (f; CRC; DAV); Febrifuge (f1; MPB; SOU); Fungicide (1; AAB; FT71:453; ZUL); Gastrotonic (f; EGG; RAR); Hemostat (1; AAB; CRC); Hepatotoxic (1; AAB; X1404245); Hypotensive (f1; RAR; SOU; TRA); Hypothermic (1; CRC; TRA); Immunosuppressive (1; MPG; X9567767); Insecticide (1; ZUL); Insectifuge (1; X8887218); Myocontractant (1; TRA); Myorelaxant (1; MPG); Nematocide (1; JNP63:765); Nephrotoxic (1; AAB); Nervine (f; CRC); Pectoral (f1; CRC; SOU; TRA); Pheromone (1; MPG); Phototoxic (1; AAB; VOD); Piscicide (f; CRC); PKC-Inhibitor (1; MPB); Purgative (f; BEJ); Sedative (f; CRC); Spermicide (1; X12583691); Stimulant (f; CRC; JFM); Stomachic (f; CRC; JFM); Sudorific (f; JFM; MPB); Tonic (f; CRC; JFM); Toxic (f1; MPB); Vermifuge (f; CRC); Vulnerary (f; CRC; EGG; VOD; WOI).

**Indications:**

Amebiasis (1; PR14:356); Anemia (f; CRC; DAV); Asthma (f; CRC; SOU); *Bacillus* (1; MPG); Bacteria (1; AAB); Bilioussness (f; WOI); Bites (f; CRC); Bleeding (1; AAB; CRC); Bronchosis (f; DAV; MD2; MPB); Bruises (f; MPG); Cancer (f1; CRC; FNF; MPB); Catarrh (f; CRC; WOI); Chest Colds (f; VOD); Chickenpox (f; CRC; JFM); Childbirth (f; CRC; MPG); Colds (f; DAV; JFM; MD2; VOD; WBB); Consumption (f; CRC); Coughs (f; DAV; MD2; VOD; WBB); Cramps (f; EGG); Dermatitis (f1; CRC; JE86:167; MD2; TRA; WOI); Diarrhea (f; CRC; JFM); Dysentery (f; CRC; MPG); Dysmenorrhea (f; CRC; JFM); Dyspepsia (f; CRC; DAV; VOD); Dyspnea (f; CRC); Dysuria (f; JFM); Eczema (f; CRC; WOI); Enterosis (f; WOI); Eruption (f; WOI); Fever (f1; CRC; JFM; SOU; TRA; VOD); Fistula (f; CRC; WOI); Flu (f; CRC; MD2; TRA; VOD); Fungus (1; AAB; MD2); Gas (f; VOD); Gonorrhea (f; VOD); Headache (f; ZIM; ZUL); Hepatosis (f; DAV); Herpes (f; EGG); High Blood Pressure (f1; CRC; JFM; RAR; SOU); Impetigo (f; EGG); Infection (f1; CRC; EGG; FT71:453; MD2; MPG; TRA); Inflammation (f; CRC); Itch (f; AAB; CRC; MD2); Jaundice (f; CRC; WBB); Leprosy (f; CRC; IED); Malaria (1; CRC; PR14:356; WOI); Measles (f; CRC; JFM); Mycosis (1; AAB; DAV; FT71:453); Neurodermatosis (f; CRC); Pain (f; WOI); Parotitis (f; CRC); Pneumopathy (f; TRA); *Pseudomonas* (1; MPG); Pulmonosis (f; MPB; TRA); Respirosis (f; DAV); Rheumatism (f; JFM; SOU; VOD); Ringworm (f; MD2); *Salmonella* (1; X9162177); Scabies (f; CRC; MPB); Snake Bite (f; CRC; JFM); Sores (f; CRC); Spasms (f; CRC; LMP); *Staphylococcus* (1; AAB; X9162177); Stomachache (f; CRC); Stomatosis (f; CRC); Swelling (f; WOI); Tetanus (f; CRC; WOI); Toothache (f; CRC; MPG; WOI); Tumors (f; CRC; JLH; WOI); Ulcers (f; LMP); VD (f; CRC; JFM; VOD); Viruses (f; EGG); Worms (f; CRC); Wounds (f; EGG; JFM; WOI); Yellow Fever (f; CRC).

**Dosages:**

FNFF = ! Fruit described as edible (RAR). Fruit can be eaten fresh but ordinarily used as a condiment (TAN). The fruits, like those of *Solanum nigrum*, are reported both poisonous and edible (IED), but see downsides.

- Belizeans apply powdered dry leaves to itch or wash with leaf infusion (AAB).
- Brazilian Africans use white flower syrup for chest colds (VOD).
- Dominicans use floral a/o leaf syrups for colds, dyspepsia, and fever (VOD).
- Dominican Caribs take cold water root infusion for gonorrhea (VOD).
- Haitians take leaf decoction for cold, cough, flu, and gas (VOD).

- Haitians take leaf, root, and stem decoction, internally and externally, for rheumatism (VOD).
- Madre de Dios Peruvians take leaf tea for bronchitis, colds, cough, fever, and flu (MD2).
- Peruvians apply the antiseptic leaf juice to wounds and to herpes zoster (EGG).
- Peruvians suggest leaf decoction with honey, garlic, and onion for bronchosis and colds (DAV).
- Peruvians suggest sweet decoction (40 g root/800 g water) for asthma and pulmonoses (DAV).
- Peruvians take leaf tea as antispasmodic, antirheumatic, astringent, febrifuge, and pectoral (EGG).
- Salvadorans boil 3 flower clusters with 3 leaves in 3 cups water for fever (MPG).
- Venezuelans drink shoot decoction as diuretic in all urinary complaints (JFM).

**Downsides:**

Not covered (AHP; KOM; PHR). This toxic plant should not be taken internally (TRA). Human fatalities attributed to ingestion of green berries. As of July 2007, the FDA Poisonous Plant Database listed 234 titles alluding to toxicity of this species.

**WEST INDIAN-NETTLE (*Laportea aestuans* (L.) Chew) +  
URTICACEAE**



**Synonyms:**

*Fleurya aestuans* (L.) Miq.; *Urtica aestuans* L. (basionym); fide (USN).

**Notes:**

One leaf placed in an aquarium with snails significantly augmented egg laying (MPB).

**Common Names:**

Cansansao (Brazil; MPB); Cow Itch (Eng.; JFM); Huo Yan Sang Ye Ma (China; USN); Ishanga (Peru; SOU); Ishanga Blanca (Peru; Sp.; LOR; MDD); Ishunga (Peru; SOU); Manegus (Palikur; GMJ); Nettle (Eng.; JFM); Ortiga (Peru; Sp.; JFM; MDD); Ortiga de Granada (Sp.; JFM); Ortiga de Managua (Sp.; JFM); Pica (Sp.; JFM); Picapica (Dor.; Sp.; AHL; USN); Pringamoza (Sp.; JFM); Puca Ishanga (Peru; SOU); Scratch Bush (Eng.; JFM); Stinging Nettle (Eng.; JFM); Urtiga (Sp.; JFM); Urtiga de Folha Grande (Brazil; MPB); Urtiga Grande (Brazil; MPB); Urtiga Vermelha (Brazil; MPB); West Indian-Nettle (Eng.; JFM; USN); White Nettle (Eng.; DAV); Zouti (Creole; Guy.; GMJ); Zouti Rouge (Creole; Guy.; GMJ).

**Activities:**

Antitussive (f; MPB); Diuretic (f; GMJ; MPB).

**Indications:**

Burns (f; DAW); Childbirth (f; JFM; X17362507); Constipation (f; DAW); Coughs (f; MPB); Diabetes (f; X17040567); Dysentery (f; DAW); Infertility (f; X17362507); Pain (f; DAV); Rheumatism (f; DAV); Rickets (f; DAW); Stricture (f; JFM); VD (f; JFM); Wounds (f; DAW).

**Dosages:**

FNFF = ?

- Barbadians take the decoction of nettle and oats to treat stricture (JFM).
- Caribs use for childbirth and infertility (X17362507).
- Trinidadians take plant (with root) decoction as diuretic in VD and to help expel placenta after delivery (JFM).
- Trinidad and Tobago natives use for diabetes (X17040567).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed five titles alluding to toxicity of this species.

**CHAPARRAL (*Larrea tridentata* (DC.) Coville) +  
ZYGOPHYLLACEAE**

**Illustrations:**

p 143 (MAX)

**Synonyms:**

*Covillea glutinosa* (Engelm.) Rydb.; *C. tridentata* (DC.) Vail.; *Larrea divaricata* Cav.; *L. mexicana* Moric; *Zygophyllum tridentatum* Sessé & Moc. ex DC.; fide (HH3; USN).

**Notes:**

I've raised my safety score on this one, thinking the FDA was a little harsh in its judgment. I tend to agree with the authors who recognized the southern *divaricata* and the northern *divaricata* as varietally rather than specifically distinct.

**Common Names:**

Chaparral (Eng.; Scn.; AH2; CR2; USN); Creosote Bush (Eng.; Ocn.; AH2; CR2; USN); Creosote Weed (Eng.; JLH); Falsa Alcaparra (Mex.; MAX); Gobernadora (Dutch; Fr.; Mex.; Sp.; EFS; MAX; USN); Greasewood (Eng.; HH3); Guamia (Mex.; MAX); Hediondilla (Mex.; Sp.; MAX; USN); Hediondo (Sp.; HH3); Herba Palo Ondo (Sp.; HH3); Huamis (Mex.; MAX); Jarilla (Arg.); Kreosotstrauch (Ger.; USN); Palo Ondo (Sp.; HH3).

**Activities:**

Abortifacient (f; HH3); Allergenic (1; APA; CRC); Alterative (f; PED); Amebicide (f1; CAN; X211947); Antiaging (f; APA); Antibiotic (1; PED); Anticancer (1; APA); Anticariogenic (1; X14998553); Anticatalase (1; HH3); Anticlastogenic (1; X10224322); Anti-edemic (1; X15330501); Antigenotoxic (1; X10224322); AntiHIV (1; APA; X7479972); Antiinflammatory (f1; APA); Antilymphomic (1; X11292233); Antioxidant (1; APA; CRC; PED; X15381414); Antiperoxidase (1; HH3; X14998553); Antiproliferant (1; X11292233; X12375879); Antiprostaglandin (1; X14998553); Antiseptic (f1; APA; CRC; PCS; PED); Antispasmodic (f; PED); Antitumor (1; CRC); Antiviral (f1; CRC; X7479972); Antiyeast (1; APA); Apoptotic (1; FNF; X12375879); Bactericide (1; CRC; PED); Bitter (1; PED); cAMP-Genic (1; X11292233); Chemopreventive (1; X12112316); Cytoprotective (1; X10224322);



Decongestant (f; DEM); Deodorant (f; DEM); Depurative (f; PED); Diuretic (f; CRC; DEM; PED); Emetic (f; CRC); Emmenagogue (f; DEM); Estrogenic (f; APA); Expectorant (f; PED); Hepatotoxic (1; APA; X12457882); Lactagogue (f; DEM); Larvicide (1; APA); Lipoxygenase-Inhibitor (1; X12375879); Litholytic (f1; MAX; X8209150); LSD-Chelator (f; PED); Nephrotoxic (1; X12457882); Panacea (f; DEM); Parasiticide (1; CRC; PED); Peroxidase (1; X14998553); Protein-Kinase-C-Inhibitor (1; X11292233); Reverse Transcriptase-Inhibitor (1; X7479972).

### Indications:

Acne (f; APA); Alcoholism (f; APA); Amebiasis (f1; CAN; X211947); Arthrosis (f; CRC; DEM; PED); Asthma (f; DEM); Bites (f; DEM); Bladder Stones (1; X8209150); Bone (f; DEM); Bronchosis (f; APA); Bruises (f; CRC; DEM; PCS); Burns (f; APA; DEM); Calculus (f1; MAX; X8209150); Cancer (f1; APA; JLH; PED); Cancer, kidney (f1; CRC, FNF; JLH); Cancer, liver (f1; CRC, FNF; JLH); Cancer, lung (f1; CRC, JLH; X12375879); Cancer, skin (f1; FNF; X12112316); Cancer, stomach (f1; CRC, FNF; JLH); Caries (1; X14998553); Chafing (f; CRC); Chickenpox (f; DEM); Childbirth (f; DEM); Colds (f; APA; CRC; DEM); Congestion (f; DEM); Consumption (f; DEM); Cramps (f; CRC; DEM); Cystosis (f; MAX); Dandruff (f; CRC; DEM); Debility (f; DEM); Dermatitis (f; MAX); Diabetes (f; HH3); Diarrhea (f; APA); Dysentery (f; DEM); Dysmenorrhea (f; CRC; DEM); Dyspepsia (f; CRC; DEM); Dysuria (f; CRC; DEM; MAX); Eczema (f; CRC); Edema (1; X15330501); Enterosis (f; CRC; DEM; PCS); Fever (f; DEM); Flu (f; CRC); Feet (f; DEM); Gas (f; DEM); Gastrosis (f; CRC; PCS); Gonorrhea (f; DEM); Headache (f; DEM; HH3); Hematochezia (f; CRC); Hemorrhoids (f; HH3); High Blood Pressure (f; HH3); HIV (1; X7479972); Impetigo (f; DEM); Infection (f1; APA; CRC; HH3); Inflammation (f1; APA; CRC); Itch (f; CRC); Leukemia (f; CRC; JLH); Lymphoma (1; X11292233); Melanoma (1; APA); Nephrosis (f; CRC; MAX); Obesity (f; APA); Pain (f; APA; DEM; MAX); Parasites (1; PED); Pulmonosis (f; DEM); Rheumatism (f; APA; CRC; MAX; PED); Scabies (f; CRC); Snake Bite (f; APA; CRC; DEM); Sores (f; CRC; DEM; PCS); Spasms (f; DEM); Stomachache (f; DEM); Stones (f1; MAX; X8209150); Swelling (1; X15330501); Toothache (f; DEM); Tuberculosis (f; CRC; DEM; PCS; PED); Urethrosis (f; CRC; HH3); VD (f; APA; CRC; PCS; PED); Wounds (f; CRC; DEM; MAX); Yeast (1; APA).

### Dosages:

FNFF = ! Flower buds said to be pickled in vinegar and eaten like capers (FAC; PCS). Leaves and stems used in teas (FAC). Twigs chewed to alleviate thirst (FAC). 1 tsp shoots/qt water for mouthwash (APA); 2–4 tbsp herb (PED); 3–6 g dry herb (PED); 4.5 g dry herb:22 ml alcohol/23 ml water (PED).

- Mexicans decoct 6 g leaf in 250 ml water and apply to excoriations and wounds (MAX).
- Mexicans decoct 10 g leaf in 1 liter water for dysuria, bladder and kidney stones, and as a rub for rheumatic areas (MAX).

### Downsides:

Class 2d. “Not for use in large amounts by persons with pre-existing kidney disease... and liver conditions, such as hepatitis and cirrhosis” (AHP). Newall, Anderson, and Philipson (1996) caution that the lignans may be hepatotoxic and cause dermatosis. Because of its hepatotoxic and uterine activity, its use in pregnancy and lactation is to be avoided. May interfere with MAOI therapy, “because of the documented amino acid constituents” (CAN); however, they list mostly ubiquitous amino acids. Does this mean that we should attach the MAOI warning to all herbs? “Seek advice from a health care practitioner before use if you have any history of liver disease. Discontinue use if nausea, fever, fatigue, or jaundice occur (e.g., dark urine or yellow discoloration of the eyes)” (AHP). “Canadian

regulations do not allow chaparral as a non-medicinal ingredient for oral use products” (Michols, 1995). Can induce contact dermatosis. NDGA may induce mesenteric lymph node and renal lesions in rats. Removed from the GRAS list in 1970 (LRN, Aug. 1993). As of July 2007, the FDA Poisonous Plant Database listed 72 titles alluding to toxicity of this species.

**Extracts:**

Lignans amebicidal and fungicidal (CAN). Phenolic resins antioxidant, antiseptic, and anti-spasmodic (PED). Volatile oils diuretic and expectorant (PED). NDGA, with many reported biological activities, has LD50 = 4,000 mg/kg orl mus, 5,500 mg/kg orl rat, and 830 mg/kg orl gpg and dog (HH3).

### ARQUITECTA (*Lasiocephalus ovatus* Schldl.) + ASTERACEAE

**Synonyms:**

*Culcitium ovatum* H.B.K.; *C. reflexum* H.B.K.; *C. uniflorum* H.B.K.; *Gnaphalium uniflorum* H.B.K.; *Senecio reflexus* (H.B.K.) Cuatr.; *S. superandinus* Cuatr.

**Notes:**

Of all the synonyms mentioned above, none are reported in BAZ except *Senecio reflexa* which they equate with *Pentacacalia reflexa* (H.B.K.) Cuatr, which brings its own suite of synonyms: *Senecio klugii* Greenm.; *S. macbridei* Greenm.; *S. semidentatus* var. *klugii* (Greenm.) Cuatr.

**Common Names:**

(Nscn).

**Activities:**

Antierthyemic (1; X11801380); Antioxidant (1; X11801380); Antisyphilitic (f; MPG); Fungicide (1; MPG); Insecticide (1; MPG); Photoprotective (1; X11801380).

**Indications:**

Fungus (1; MPG); Infection (1; MPG); Mycosis (1; MPG); Oliguria (f; MPG); Syphilis (f; MPG).

**Dosages:**

FNFF = ?

- Ecuadorians use decoction (handful of leaves or branches, with or without flowers) in a liter of water, 1–2 cups/day for oliguria and syphilis (MPG).

### LATUA (*Latua pubiflora* (Griseb.) Baill.) X SOLANACEAE

**Synonyms:**

*Lycioplesium pubiflorum* Griseb. (basionym); fide (USN).

**Common Names:**

Palo de los Brujos (USN).

**Activities:**

Aphrodisiac (f; CRC); Deliriant (1; CRC); Hallucinogen (1; CRC); Narcotic (1; CRC); Piscicide (1; CRC); Poison (1; CRC); Psychedelic (1; CRC).

**Indications:**

Impotence (f; CRC).

**Dosages:**

FNFF = X

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**Extracts:**

Four tropane alkaloids were isolated from the leaves, apoatropine, 3alpha-cinnamoyloxytropane, hyoscyamine, and scopolamine (X14577619).

### MACA (*Lepidium meyenii* Walp.) ++

#### BRASSICACEAE

**Synonyms:**

*Lepidium peruvianum* G. Chacón de Popovici; fide (POR; USN).

**Notes:**

My associates in the herb business rather disdain my very skeptical and negative view of the virtues of “maca,” the so-called “Peruvian ginseng.” I rank it right there with “suma,” the “Brazilian ginseng.” But I’ll be gentle and just quote Leslie Taylor: “When maca first made its debut, it was touted to be the new ‘natural Viagra (TM)’ for men — sure to increase testosterone and natural performance. After brisk sales, the market decreased because it simply didn’t work as it claimed . . . . [M]arketers are today marketing maca as the “new HRT alternative” . . . [M]aca will not live up to this new marketing claim either . . . [I]ndependent research reports that maca has no hormonal effect in animal and human studies.” (RAI, p. 341). I am even a little skeptical of ginseng, much less maca or suma. The dried maca I was sent looks like a dried radish or turnip. Dirt cheap, radishes and turnips are members of the same chemopreventive mustard family, Brassicaceae, and share most of the phytochemicals itemized so far for maca, like arginine and histidine. Perhaps the U.S. marketer who patented “maca” for aphrodisiac and fertility properties, should have patented radish instead. The amino acids arginine and histidine, and other nutrients in a radish or two, would probably be as efficacious, enabling a starved mouse to swim and mount more. Interesting that Roersch (1994) and Gupta (1995) did not bother to include this commercialized herb in their two books, *Medicinal Plants in the South Andes of Peru* and *270 Iberoamerican Medicinal Plants*, but it is now among one of the best known Andean Peruvian herbs. Promotion or science?

**Common Names:**

Ayak (Peru; EGG); Ayak Chichira (Que.; POR); Ayak Willku (Peru; Que.; EGG; POR); Chichira (Peru; Que.; EGG; POR); Huto Huto (Peru; Que.; EGG; POR); Maca (Eng.; Peru; Que.; Scn.; AH2; CR2; EGG; POR; USN); Maca Maca (Peru; Que.; EGG; POR); Maino (Peru; Que.; EGG; POR); Maka (Peru; Que.; EGG; POR); Maqa Maqa (Bol.; Que.; DLZ); Peruvian Ginseng (Eng.; CR2; EGG; POR; USN).

**Activities:**

Anabolic (f; JAF50:5261); Antiseptic (f; DLZ); Aphrodisiac (1; X11297856; X11561196); Chemopreventive (1; FNF; RAI); Cicatrizant (f; DLZ); Emmenagogue (f; DLZ); Immunostimulant (f; RAI); Lipogenic (1; X11048583); Memorogenic (f; EB55:255; RAI); Spermatogenic (1; X11561196); Tonic (f; EGG; X11297856); Vulnerary (f; DLZ).

**Indications:**

Alzheimer's (f; EB55:255; RAI); Anemia (f; EB55:255; EGG; RAI); Cancer (f1; EB55:255); Cancer, breast (f1; EB55:255); Cancer, liver (f1; EB55:255); Cancer, stomach (f1; EB55:255; RAI); CFS (f; RAI); Debility (f; X11297856); Depression (f; EB55:255); Dysmenorrhea (f; EGG; JAF50:5261; RAI); Gastrosis (1; EB55:255); Goiter (f; EGG); Hepatosis (1; EB55:255); High Blood Pressure (f; DLZ); HIV (f; EB55:255); Impotence (1; X11297856; X11561196); Infection (f; DLZ); Infertility (f1; EGG; X11561196); Insomnia (f; JAF50:5261); Leukemia (f; EB55:255); Mastosis (1; EB55:255); Memory (f; EB55:255; RAI); Menopause (f; JAF50:5261; RAI); Pulmonosis (f; DLZ); Rickets (f; EGG); Stress (1; EB55:255); Tuberculosis (f; RAI); Wounds (f; DLZ).

**Dosages:**

FNFF = !! Root eaten after drying and cooking, or the juice is expressed, cooked and consumed, or made into "chicha de maca"; root macerated in alcohol and consumed as "cocktail de maca" (EGG). Maca is traditionally eaten as a food only in the high Andes. For the herb market, maca is dried and encapsulated. Maca root extract: 300 mg root extract, standardized for 0.6% macamides and macaenes, in a 145 mg base of maca root, 3×/day (NH); 1 tbsp powdered root (RAI); 500 mg root 3–6×/day (NH); 5 g capsule/tablet 2×/day (RAI). Experimental animal doses: 75 mg root extract/kg (X11297856), 66.7 mg root extract/ml (X11561196); in fairly large quantities.

- Peruvians use for anemia, dysmenorrhea, energy, fertility, food, impotence, memory, menopause, and tuberculosis (EGG; RAI).

**Downsides:**

Not covered (AHP; KOM; PH2). Some importers recommend a periodic break from maca consumption. As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

## JUMBIE BEAN (*Leucaena leucocephala* (Lam.) de Wit) ++

### MIMOSACEAE

**Illustrations:**

p 290 (NPM); p 546 (TTS)

**Synonyms:**

*Acacia glauca* Willd.; *Leucaena glauca* auct.; *L. latisiliqua* (L.) Gillis; *Mimosa glauca* L.; *M. latisiliqua* L.; *M. leucocephala* Lamarck (fide NPM; USN).

**Notes:**

Foliage provides fodder; bark provides a brown dye (NPM). Mashed seed repel insects (EGG). Sometimes grown for charcoal or firewood on a 6- to 7-year rotation (L&W).

**Common Names:**

Acacia (New Caledonia; Pr.; KAB; L&W); Acacia Blanca (Sp.; AVP); Acacia Palida (Pr.; Sp.; AVP; L&W); Agho (Vis.; KAB); Anil (Bel.; BNA); Aroma Blanca (Cuba; Sp.; AVP; JTR; L&W); Aroma Boba (Cuba; Sp.; AVP; JFM; JTR; L&W); Aroma Mansa (Cuba; Sp.; AVP; JTR; L&W); Barba de Leon (Guat.; Sp.; AVP); Barba de León (Fr.; Guat.; AVP; L&W); Bois Bourro (Haiti; AVP); Bois Lolo (Fr.; Guad.; St. Bart.; AVP; L&W); Bolillo (Mex.; Sp.; AVP); Camba (Peru; Sp.; AVP); Campeche (Pr.; JFM; JTR); Caña Fistola de Monte (Col.; Sp.; AVP); Cassie Blanc (Réunion; KAB); Chapra (Peru; EGG); Coffee Bush (Eng.; NPM); Cow Bush (Bah.; Ma.; JFM; L&W); Cow Tamarind (Eng.; AVP); Delen (Creole; Haiti; VOD); Durote (Ven.; AVP); Ekoa (LEG); Epil (Nepal; NPM); Garoti de San Jose (Ma.; JFM); Gin Nemu (Japan; TAN); Graines de Lin (Fr.; USN);

Graines de Lin Pays (Haiti; AVP; L&W); Granadillo Bobo (Dor.; Sp.; AVP; L&W); Granadino (Dor.; Ma.; JFM; L&W); Granalino (Dor.; Sp.; AHL; AVP; JTR); Grandino (Sp.; AVP); Green Guaje (Eng.; FAC); Gros Casie (Réunion; KAB); Guacis (Mex.; JFM; JTR); Guaje (Mex.; Sp.; L&W; USN); Guajillo (Mex.; Sp.; AVP); Guaxi (Mex.; Sp.; AVP); Hediondilla (Pr.; Sp.; LEG; L&W); Horse Tamarind (Eng.; USN); Huaxim (Sp.; USN); Ipil-Ipil (Tag.; TAN); Jimbay (Bah.; Bermuda; AVP; L&W); Jimbo Bean (Ma.; JFM); Jocoro (Sal.; Sp.; AVP); Jumbie-Bean (Eng.; FAC; USN); Junby-Bean (Bah.; JTR); Kama-landingan (Sunda; IHB); Kametir (Java; TAN); Kanita (Tel.; WOI); Katin (Thai; IHB); Kẽmlandingan (Java; IHB); Koa Haole (Eng.; USN); Lamtara (Java; IHB); Lasobaval (Guj.; KAB; SKJ; WOI); Leadtree (Bah.; Eng.; FAC; JTR; USN); Leleques (Ma.; JFM); Leucaena (Eng.; USN; VOD); Lino (Dor.; Sp.; AVP; L&W); Lino Criollo (Dor.; Sp.; AHL; AVP; L&W); Macata (Guad.; Sp.; JFM); Macata Blanca (Fr.; Guad.; Mart.; AVP; L&W); Macata Bourse (Fr.; Guad.; AVP); Madlenn (Creole; Haiti; VOD); Mětir (Java; IHB); Mimosa (Dei.; Réunion; AVP; KAB); Monval (Guad.; St. Bart.; L&W); Monval Lolo (Fr.; AVP); Nagari Kesari (Guntur; WOI); Nattuccavudal (Tam.; WOI); Panelo (Col.; Sp.; AVP; IED; L&W); Pardeshibaval (Guj.; KAB); Pashaquilla (Peru; DAV; EGG); Pěłěnding (Sunda; IHB); Pětai Bělalang (Malaya; IHB); Patae Jawa (Malaya; TAN); Pětai Jawa (Malaya; IHB; KAB); Pěté China (Java; IHB); Pěté Sělong (Java; IHB); Peuteui China (Sunda; IHB); Peuteui Sělong (Sunda; IHB); Pinang Lěngong (Malaya; IHB); Rajokasundiri (Oriya; WOI); Ramon (Ven.; AVP); Santa Helena (Pi.; KAB); Sělamtara (Java; IHB); Shack Shack (Eng.; Trin.; AVP; L&W); Soplillo (Cuba; JTR); Tagarai (Tam.; WOI); Takaranniram (Mal.; WOI); Tamarin Batard (Fr.; Guad.; AVP); Tamarindillo (Sp.; AVP); Tamarindo Silvestre (Sp.; EFS); Tamarinier Sauvage (Fr.; EFS); Tamarin Sauvage (Fr.; EFS); Tanta (Sp.; LEG); Tantan (Dutch; AVP; LWV); Tcha-Tcha-Marron (Haiti; AVP); Tchia-Tchia-Marron (Haiti; AHL); Toira Kadam (Lakhimpur; WOI); Tumberabu (Dutch; Dwi.; AVP; L&W); Uaxim (Mex.; Sp.; L&W; USN); Valayatibaval (Guj.; SKJ); Veranero (Sp.; AVP); Vilavatibaval (Guj.; WOI); Vilayatibaval (Guj.; KAB); West Indian Mimosa (Ma.; JFM); West Indies Mimosa (Trin.; AVP; L&W); White Popinac (Eng.; L&W; USN); Wilde Tamarinde (Dutch; Ger.; EFS); Wild Mimosa (Bermuda; Ma.; JFM; L&W); Wild Popinac (Eng.; AVP); Wild Taman (Eng.; Vi.; AVP; JFM; L&W); Wild Tamarind (Eng.; Vi.; BNA; L&W; TAN; VOD); Yabwe (Loko; UPW); Yaje (Guat.; Sp.; AVP); Yaravisco (Peru; EGG); Yin He Huan (China; TAN); Zarcilla (Sp.; LEG); Zarza Blanca (Pr.; Sp.; JFM; JTR).

### Activities:

Abortifacient (f; JFM; NPM; VOD); Analgesic (f; JFM; LEG); Antifertility (f; LEG); Antiseptic (1; X14638396); Antithyroid (1; X90499); Antiviral (1; X14638396); Ascari-  
cide (f; UPW); Carminative (f; JFM); Contraceptive (f; LEG); Decongestant (f; JFM); Depilatory (1; LEG); Ecbolic (f; LEG); Emmenagogue (f; LEG); Emollient (f; NPM); Feb-  
rifuge (f; JFM); Fungicide (1; X12784603); Goitrogenic (1; LEG; X90499); Insectifuge (f;  
EGG); Iron Chelator (1; X8806853); Piscicide (f; UPW; WOI); Tonic (f; JFM); Vermifuge  
(f; UPW; WOI).

### Indications:

Amenorrhea (f; LEG); Anemia (f; JFM; VOD); Backache (f; JFM; VOD); Bronchosis (f; EGG);  
Colds (f; JFM); Congestion (f; JFM); Constipation (f; AHL); Cramps (f; JFM); Dysmenorrhea  
(f; JFM); Dyspepsia (f; VOD); Fever (f; JFM; VOD); Fungus (1; X12784603); Gas (f; JFM);  
Infection (1; X12784603; X14638396); Mycosis (1; X12784603); Neurosis (f; JFM); Pain (f;  
JFM; LEG; SKJ; VOD); Splenosis (f; JFM); Typhoid (f; JFM; VOD); Viruses (1; X14638396);  
Worms (f; UPW; WOI).

**Dosages:**

FNFF = !? Young flower buds, leaves, and pods eaten raw, steamed, or in soups. Unripe seeds mixed with grated coconut and fish or meat, then roasted in banana leaves. Mature fleshy (i.e., not dry) seeds eaten raw or cooked. Mature dry seeds scorched as coffee substitute, or fermented to make a sort of tempeh, or powdered and pickled with spices (FAC; NPM).

- Assamese take the stem bark to relieve internal pain (WOI).
- Bahamans take leaf decoction for gas, nerves, and typhoid (JFM).
- Dominicans suggest the mucilage from boiled seeds as an enema in constipation (AHL).
- Haitians and Caicos Islanders take root a/o young branch decoction for severe back pain (JFM; VOD).
- Haitians ingest the bark a/o root as an abortifacient (VOD).
- Haitians take leaf tea for dyspepsia and typhoid (VOD).
- Haitians take parched leaf decoction for anemia (VOD).
- Peruvians suggest sweetened leaf tea for bronchitis (EGG).
- Virgin Islanders use the decoction as a tonic for colds (JFM).
- Yucatanese take the decoction for spleen ailments (JFM).

**Downsides:**

Contains the poisonous alkaloid mimosine, which causes loss of hair and hooves in grazing animals (JFM). Because of the toxin mimosine, I discourage regular consumption as food. As of July 2007, the FDA Poisonous Plant Database listed 120 titles alluding to toxicity of this species.

## GUAYCURÚ (*Limonium brasiliense* (Boiss.) Kuntze) + PLUMBAGINACEAE

**Synonyms:**

*Statice brasiliense* Boiss.

**Notes:**

The water from the baked root is used to dye wool an intense reddish-brown color (PUM).

**Common Names:**

Guaycurú (PUM).

**Activities:**

Antioxidant (1; X15813364).

**Indications:**

Backache (f; PUM); Hepatosis (f; PUM); Pain (f; PUM).

**Dosages:**

FNFF = ! The leaf infusion prepared is used to calm internal pains or backaches (PUM).

**Extracts:**

Root extract antioxidant with the following compounds reported for the first time in this species: myricetin 3-O-alpha-rhamnopyranoside, (-)-epigallocatechin 3-O-gallate, (-)-epigallocatechin, (+)-gallocatechin, and gallic acid (X15813364).

**BUSHY MATGRASS (*Lippia alba* (Mill.) N. E. Br. ex Britton & P. Wilson) ++**

## VERBENACEAE

**Illustrations:**

p 557 (MPG)

**Synonyms:**

*Lippia germinata* Kunth; *Verbena globiflora*; Gupta (1995) lists about a dozen more synonyms; fide (AH2; EGG; MPG).

**Notes:**

Rutter (1990) keeps *Lippia geminata* separate; not listed in USN. Morton (1977, 1981) unites *L. geminata* with *L. alba*.

**Common Names:**

Alecrim do Campo (Brazil; MPB); Anis de España (Cuba; Ma.; JFM; MPG); Anise Verbena (Eng.; FAC); Bana Tipo (Peru; EGG); Brazilian False Melissa (Eng.; JE82:207); Bushy Matgrass (Eng.; Scn.; AH2; USN); Cariaquito Blanco (Ma.; JFM); Cat Mint (Ma.; JFM); Catnip (Creole; Nic.; IED); Cha do Tabuleiro (Brazil; MPB); Chicharra Caspi (Peru; RAR); Cidra (Peru; EGG; RAR); Cidraeira (Peru; RAR); Cidrilha (Brazil; MPB); Colic Mint (Ma.; JFM); Cullen Mint (Ma.; JFM); Erva Cidreira (Brazil; GMJ; MPG); Erva Cidraeira Brava (Brazil; RAR); Falsa Melissa (Brazil; MPG); Guanilama (Hon.; Ma.; JFM; MPG); Guinea Mint (Ma.; JFM); Herbe Cidreira (Por.; TAN); Hierba Buena (Ma.; Mex.; JFM; MPG); Hierba del Negro (Ma.; Mex.; JFM; MPG); Hierbaluisa (Peru; EGG); Hinojo de Anis (Cuba; Ma.; JFM); Inima Tipó (Shipibo/Conibo; EGG); Jenen Tipó (Shipibo/Conibo; EGG); Juanilama (Cr.; Guat.; JFM; MPG); Juanislama (Ma.; Nic.; JFM); Licorice Verbena (Eng.; FAC); Malva (Ma.; JFM); Marguerite (Haiti; AVP); Mastranto (Guat.; Pan.; JFM; MPG); Mastranzo (Ma.; JFM); Melisse de Calme (Creole; Guy.; GMJ); Menta Americana (Cuba; Ma.; JFM; MPG); Mirto (Ma.; Mex.; JFM; MPG); Orega (Ma.; JFM); Orégano (Peru; EGG; RAR; SOU); Oregano de Burro (Ma.; JFM); Orozul (Pan.; MPG); Orozuz (Ma.; JFM); Pampa Orégano (Peru; Sp.; LOR; RAR; SOU); Pan Poregano (Peru; EGG; SOU); Pichas Lacri (TAN); Poleo (Cuba; MPG); Poley (Ma.; JFM); Pronto Alivio (Col.; MPG); Quita Dolor (Cuba; Ma.; JFM; MPG); Rondona (Nic.; MPG); Salsa Branca (Brazil; MPB); Salsa Limao (Brazil; MPB); Salva (Peru; EGG); Salva Branca (Brazil; MPB); Salva Limao (Brazil; MPB); Salve Real (Ocn.; AH2); Salvia Americana (Cuba; Ma.; JFM; MPG); Salvia Betónica (Ma.; Mex.; JFM; MPG); Salvia Marí (Guat.; MPG); Salvia Santa (Guat.; Ma.; JFM; MPG); Salvia Sija (Cuba; Ma.; JFM);

MPG); Santa Maria (Ma.; JFM); Sauge du Brésil (Guad.; AVP); Sea Sage (Bel.; BNA); Sideraco (Peru; SOU); Sideraero (Peru; EGG; RAR); Sonora (Ma.; Mex.; JFM; MPG); Tarete (Ma.; JFM); Té del Pais (Ma.; Mex.; JFM; MPG); Te del Pan (Ma.; JFM); Te de Maceta (Ma.; JFM); Toronjil (Ma.; JFM); Toronjil Americano (Cuba; Ma.; JFM; MPG); Toronjil de España (Cuba; Ma.; JFM; MPG); Toronjil Isleño (Cuba; Ma.; JFM; MPG); Toronjil Mentol (Cuba; Ma.; JFM; MPG); Yerba Buena Americana (Cuba; Ma.; JFM; MPG).

### Activities:

Analgesic (f1; GMJ; X2615423); Antemetetic (f; DAV); Antimutagenic (1; JE87:241); Antioxidant (1; JE87:241); Antiradicular (1; JE87:241); Antiseptic (f; MPG); Antispasmodic (f; MPB; MPG; X11482786); Antiulcer (1; X11482786); Antiviral (1; X15266897); Astringent (f1; MPG); Bactericide (1; MPG); Candidicide (1; MPG); Carminative (f1; MPG); Cicatrizing (f; EGG); Cytotoxic (1; MPG; X161406); Decongestant (f; JFM); Digestive (f; EB22:97); Emmenagogue (f; DAW; MPB; RAR); Expectorant (f1; MPG); Febrifuge (f; MPG); Fungicide (1; MPG); Hypotensive (f; MPG; X11891085); Insecticide (1; MPG); Myorelaxant (f1; JE82:207); Nervine (f; WOI); Oxytocic (f; EGG); Pectoral (f1; EB30:135; MPG); Sedative (f1; JE82:207; X11482786); Sialagogue (1; MPG); Stomachic (f; MPB; MPG; WOI); Sudorific (f; EB22:97; MPB); Tranquilizer (f; GMJ); Vulnerary (f; EGG).

### Indications:

Amenorrhea (f; MPG); Arthrosis (f; MPG); Asthma (f; MPG); Bacteria (1; MPG); Bleeding (f; IED); *Candida* (1; MPG); Cardiopathy (f; GMJ); Catarrh (f; MPG); Chest Colds (f; EB30:135); Childbirth (f; EGG; IED; MPG); Colds (f1; JFM; MPG; X11482786); Colic (f1; MPG); Colitis (f; DAW); Congestion (f; JFM); Coughs (f1; MPG; X11482786); Cramps (f; MPG; X11482786); Dermatitis (f; MPG); Diabetes (f; MPG); Diarrhea (f1; DAV; X15266897); Dropsy (f; EGG); Dysentery (f; X11482786); Dysmenorrhea (f; EGG); Dyspepsia (f; DAW; MPG); Enterosis (f; JFM; MPG); Fever (f; MPG; X11482786); Flu (f1; EB30:125; EGG; JFM; X15266897); Fungus (1; MPG); Gas (f; MPG); Gastrosis (f1; MPG; X11482786); Hangover (f; MPG); Headache (f; SAR); Hepatosis (f; DAW; JFM); Herpes (1; X15266897); High Blood Pressure (f; MPG; X11891085); Infection (f1; MPG; X15266897); Insomnia (f1; GMJ; JE82:207; JFM; MPG; X11482786); Intoxication (f; EGG); Laryngitis (f; MPG); Migraine (f; EGG); Mucositis (f; MPG); Myalgia (f; MPG); Mycosis (1; MPG); Nausea (f; DAV; MPG); Pain (f1; GMJ; MPG; X2615423); Puerperium (f1; MPG); Pulmonitis (f1; MPG); Respiritis (f1; EGG; MPG); *Salmonella* (1; MPG); *Staphylococcus* (1; MPG); Stomachache (f1; EB22:97; MPG); Stomatitis (f; MPG); *Streptococcus* (1; MPG); Syphilis (f; JFM); Tachycardia (f; EGG; GMJ); Toothache (f; MPG); Ulcers (1; X11482786); Urethritis (f; EGG); Vaginitis (f; MPG); VD (f; JFM); Viruses (1; X15266897); Wounds (f; EGG); Yeast (1; MPG).

### Dosages:

FNFF = ! Fresh anise-scented leaves used in teas and for flavoring fish, meat, and stews. Khasi Hill Indians use the leaves as a vegetable (FAC; TAN).

- Amazonians take leaf decoction with mint for diarrhea (SAR).
- Brazilians use the leaf tea for stomachache (DAV).
- Colombians take as antidiabetic, antispasmodic, diaphoretic, emmenagogue, and sedative (MPG).
- Costa Ricans take tea as antispasmodic, emmenagogue, expectorant, and sudorific, for colic, enterosis, and gastrosis (MPG).
- Guatemalans take decoction for arthritis, asthma, catarrh, childbirth, colic, dermatitis, dyspepsia, gas, hangover, laryngitis, mucositis, myalgia, nausea, stomatitis, toothache, vaginitis, and vomiting (MPG).
- Guyanan Créoles use leaf tea with sugar to soothe cardiac pain; the leaf decoction as relaxant and soporific (DAV; GMJ).



- Latinos inhale aroma of crushed leaves for insomnia (JFM).
- Latinos rub tincture on chest as decongestant in colds (JFM; MPG).
- Nicaraguan Creoles use leaf decoction or tea for childbirth and pregnancy, fever, digestive disorders, respiratory-pulmonary disorders, menstrual disorders and associated hemorrhage (IED).
- Panamanians use as an aromatic antispasmodic in digestive distress and hepatic colic, drinking the tea 3×/day, also for coughs and colds (IED; MPG).
- Peruvians wash the head with frothy aqueous extract for migraine (EGG).
- Surinamese boil 30 leaves in ½ liter water and drink to lower fever (JFM).
- Tikuna crush leaves in water and bathe the head for headache (SAR).
- Venezuelans take the plant with plantain and lettuce as a sedative (MPG).

#### Downsides:

As with most EOs, high doses can cause problems, in this case diarrhea, nausea, and vomiting; maladies corrected by reasonable doses (MPG). As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

#### Extracts:

1 g 50% ethanolic extract/kg showed significant analgesic activity in rats (X2615423).

### MEXICAN OREGANO (*Lippia graveolens* Kunth) ++

#### VERBENACEAE

#### Synonyms:

*Lippia berlandieri* Schauer.

#### Common Names:

Amerikanisches Oregano (Ger.; USN); Canelilla (Ma.; JFM); Epazote (Ma.; JFM); Hierba Dulce (Sp.; JFM; USN); Mexican Oregano (Eng.; TAD; USN); Mexican Sage (Eng.; USN); Oregano (Bel.; Eng.; Sp.; AAB); Orégano (Sp.; USN); Orégano de Cerro (Sp.; JFM); Orégano de la Tierra (Sp.; JFM); Orégano del Monte (Sp.; JFM); Origan Marjolaine (Fr.; USN); Salvia (Sp.; JFM); Té del Pais (Sp.; FAC); Xaak-Che (Maya; JFM); Xakilche (Maya; JFM). (Nscn).

#### Activities:

Abortifacient (f; JFM); Antiseptic (f; AAB; JFM); Emmenagogue (f; AAB; JFM); Fungicide (1; X12567288); Gram(+)-icide (1; X12567288; X12963140); Gram(−)-icide (1; X12567288; X12963140); Vulnerary (f; AAB).

#### Indications:

Amenorrhea (f; AAB); Bacteria (1; X12567288; X12963140); Burns (f; AAB); Childbirth (f; AAB); Colds (f; JFM); Coughs (f; JFM); Diabetes (f; JFM); Dysentery (f; JFM); Dysmenorrhea (f; AAB); Enterosis (f; JFM); Fever (f; JFM); Fungus (1; X12567288); Gastrosis (f; X12963140); Infection (f1; AAB; JFM; X12567288; X12963140); Respirosis (f; AAB); Spasms (f; JFM); Uterosis (f; AAB); Wounds (f; AAB).

#### Dosages:

FNFF = !! Both food and medicine to all Belizeans; dry or fresh leaves added to fish dishes, pozotes, sauces, sausages, soups, or stews, used in herb teas; principal “Mexican oregano” exported to the U.S. (AAB; FAC).

- Belizeans take tea (3 cups boiling water over ½ cup fresh or 3 tbsp. dry leaves; steep 15 min) for late or scanty periods or upper respiratory infections (AAB).
- Mexicans use decoction for fever, tincture as antispasmodic rub (JFM).

- Mexicans use to treat gastrointestinal diseases (X12963140).
- Yucatanese use as enteric antiseptic, for cold, cough, diabetes, dysmenorrhea, and dysentery (JFM).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**Extracts:**

Hexane extract and shoot EO active against Gram-positive and Gram-negative bacteria (X12567288; X12963140).

**PEYOTE (*Lophophora williamsii* (Lem. ex Salm-Dyck) J. M. Coult.) +  
CACTACEAE**

**Illustrations:**

p 250 (MAX)

**Synonyms:**

*Anhalonium lewinii* Lem.; *A. williamsii* Lem.; *Ariocarpus williamsii* Voss.; *Echinocactus williamsii* Lem. ex Salm-Dyck; *Lophophora echinata* Croizat; *L. lewinii* Lem.; *L. lutea* Backeberg; *Mamillaria lewinii* Karst.; *M. williamsii* Coult.; fide (HH2; PCS; USN).

**Common Names:**

Cactus Pudding (Eng.; USN); Devil's Root (Eng.; USN); Diabolic Root (Eng.; USN); Divine Cactus (Eng.; USN); Dry Whiskey (Eng.; USN); Dumpling Cactus (Eng.; USN); Hiculi (Huichol; Mex.; Tarahumari; PCS); Indian-Dope (Eng.; HH2; USN); Jicore (Mex.; Tarahumari; MAX); Jiculi (Mex.; Tarahumari; MAX); Jicure (Huichol; Mex.; MAX); Kamaba (Mex.; PCS); Mescal (Eng.; HH2); Mescal-Button (Eng.; USN); Mescal-Buttons (Eng.; USN); Peyote (Eng.; USN); Peyote Kactus (Ger.; HH2); Peyotl (Aztec; Eng.; MAX; USN); Raíz Diabólica (Sp.; HH2); Señi (Mex.; PCS); Tuna de Tierra (Sp.; HH2); Turnip Cactus (Eng.; USN); Whiskey Cactus (Eng.; USN); White-Mule (Eng.; USN); Wokowi (Mex.; PCS).

**Activities:**

Analgesic (f; CRC; DEM); Anorectic (f; MAX); Antiseptic (f; CRC); Antispasmodic (1; HHB); Asthmatic (1; HHB); Bradycardiac (1; HHB); Cardiotonic (f; CRC; EFS; MAX); CNS-Depressant (1; HHB); Emetic (1; PHR; PH2); Hallucinogen (1; CRC; DEM; PHR; PH2); Hypoglycemic (1; CRC); Hypotensive (f; HHB); Intoxicant (1; CRC); Lactagogue (f; CRC); Narcotic (1; CRC); Panacea (f; DEM); Poison (f; CRC); Psychedelic (f; CRC); Respirodepressant (1; HHB); Sedative (f; CRC); Stimulant (f; EFS); Sympathomimetic (1; HHB); Tonic (f; CRC; MAX); Vasodilator (1; HHB).

**Indications:**

Alcoholism (f; CRC); Angina (f; CRC; HHB); Arthrosis (f; CRC); Backache (f; CRC); Bruises (f; DEM); Burns (f; CRC); Cancer (f; JLH); Colds (f; DEM); Corns (f; CRC; JLH); Coughs (f; HHB); Diabetes (1; CRC); Enterosis (f; DEM); Fatigue (f; MAX); Fever (f; CRC; DEM); Headache (f; CRC); High Blood Pressure (f1; HHB); Hunger (f; CRC; MAX); Hyperglycemia (1; CRC); Infection (f; CRC); Insomnia (f; CRC); Pain (f; CRC; DEM); Rheumatism (f; CRC; DEM; HHB); Scarlet Fever (f; DEM); Snake Bite (f; CRC; HHB); Spasms (1; HHB); Stomachache (1; HHB); Sunstroke (f; CRC); Thirst (f; CRC); Throat (f; CRC); Tuberculosis (f; DEM); VD (f; DEM); Wounds (f; DEM; HHB).

**Dosages:**

FNFF = ! "Buttons" eaten in "religious" ceremonies (JAD). 400–700 mg mescaline (to cause hallucinations).

**Downsides:**

Not covered (AHP). May cause aural, kinesthetic, synesthetic, and visual hallucinations (PH2). As of July 2007, the FDA Poisonous Plant Database listed 81 titles alluding to toxicity of this species.

**Extracts:**

Hordenine: antiasthmatic, antidiarrheal 35 mg/kg scu dog, antifeedant, antispasmodic, bronchorelaxant, cardiotoxic 2 mg/cat ivn, hepatoprotective, sympathicomimetic, vasoconstrictor, LD50 = 2,000 orl dog, LD50 = 113.5 uns mus (FNF).

Mescaline: Bradycardiac, cardiactive 25 mg/kg ivn rbt, CNS-Active 30 mg/kg scu mus, CNS-Depressant, hallucinogen 400–700 mg/man, hypotensive, neurotoxic, psychotomimetic, respirodepressant, sympathomimetic, teratogenic, tremorigenic, vasodilator, LD50 = 132–1,180 orl mus, LD50 = 370–500 ipr mus (FNF).

## SPONGE GOURD (*Luffa operculata* (L.) Cogn.) ++

### CUCURBITACEAE

**Illustrations:**

fig 66 (MPG); p 137 (MPB)

**Synonyms:**

*Cucumis sepium* G.F.W. Meyer.; *Elaterium quinquefolium* Hook.; *Luffa astorii*; *L. purgans* M.; *Momordica operculata* L.; *M. purgans* M.; *M. quinquefida* Hook. & Arn.; *Poppya operculata* (L.) Roem.; fide (HH2; MPG; USN).

**Notes:**

Dried fruit skeleton used as an abrasive sponge.

**Common Names:**

Abobrinha del Norte (Brazil; MPG); Bucha (Ma.; JFM); Bucha dos Cacadores (Ma.; JFM); Bucha dos Paulistas (Brazil; MPG); Buchinha (Brazil; MPB; SAR); Buxa (Ma.; JFM); Buxa dos Cazadores (Por.; HH2); Cabacinha (Brazil; MPB; SAR); Cabaco de Bucha (Por.; HH2); Calabacito (Brazil; MPG); Capa de Bode (Brazil; MPG); Chacarita (Ma.; JFM); Esfregao (Ma.; JFM); Espongilla (Peru; Sp.; LOR; SOU); Espoñilla (Sp.; HH2); Esponja (Ma.; JFM); Esponjilla (Peru; Ven.; EGG; JLH); Estropao (Ma.; JFM); Jaboncillo (Peru; EGG; SOU); Jaboncillo de Campo (Ma.; JFM); Laranjinha (Ma.; JFM); Limpion (Ma.; JFM); Pashte (Ma.; JFM); Pepino de Monte (Ma.; JFM); Purga de Bucha (Brazil; MPG); Purga de Juan Paes (Ma.; JFM); Purga do Joao Paes (Brazil; MPB); Purga dos Paulistas (Brazil; MPB); Schwammgurke (Ger.; HH2); Sponge Cucumber (Ma.; JFM); Sponge Gourd (Eng.; DAV; HH2); Sponjilla (Peru; RAR); Taco (Peru; EGG; RAR); Torchon (Ma.; JFM); Tzonayotli (Ma.; JFM); Zapallito del Monte (Brazil; MPG).

**Activities:**

Abortifacient (f; DAV; EGG; JFM); Analgesic (1; HH2); Antiinflammatory (f; MPG); Antiseptic (f; MPG); Astringent (f; MPG); Decongestant (f; MPG); Diuretic (f; JFM); Emetic (f; MPB); Emmenagogue (f; MPG); Expectorant (f; MPG); Hepatoprotective (1; MPB); Hydragogue (f; MPB); Molluscicide (1; MPG); Purgative (f; EB30:140; RAR); Sudorific (f; JFM); Toxic (f; DAV); Uterotonic (1; MPG); Vermifuge (f; MPB).

**Indications:**

Amenorrhea (f; MPB; MPG); Ascites (f; MPG); Calluses (f; EGG); Cancer (f; JLH); Cellulitis (f; DAV; EGG); Chlorosis (f; MPB); Congestion (f; MPG); Constipation (f; EB30:140; RAR); Dermatitis (f; JFM); Diabetes (f; MPG); Dropsy (f; MPB; SAR); Hematoma (f; MPG); Hepatitis (1; MPB); Herpes (f; MPB); Infection (f; MPG); Inflammation (f; MPG); Jaundice (f; MPB); Ophthalmia (f; MPB); Pain (f1; HH2; JFM); Paralysis (f; JFM); Rheumatism (f; SAR); Rhinosis (f1; MPG; X16171168); Ringworm (f; JFM); Sciatica (f; JFM); Sinusitis (f1; DAV; EGG; MPB; X10539378); Snake Bite (f; EB30:140; JFM); Sores (f; MPG); Syphilis (f; EGG); Urogenitosis (f; MPG); VD (f; EGG); Worms (f; MPB); Wounds (f; MPG).

**Dosages:**

FNFF = ! Other species commonly consumed as vegetables (FAC).

- Brazilians use the fruit juice as a dewormer (MPB).
- Colombians use leaf infusion as emmenagogue (MPG), the dry fruit as emetic, purgative, and sudorific (JFM).
- Paraguayans used the fruits for amenorrhea (MPG).
- South Americans rub the rum tincture on paralysis and sciatica (JFM).
- Trinidadians use the rum infusion of fruit a/o seed for snake bite (JFM).
- Venezuelans inhale liquid from boiled cooled fruit for sinusitis (JFM).

**Downsides:**

Though *L. operculata* is applied intranasally, inducing profuse mucous secretion and relieving nasal symptoms, it may irritate nasal mucosa, aggravating epistaxis or anosmia (X16171168). As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.

**Extracts:**

Aqueous and ethanolic extracts protect rat livers from CCl<sub>4</sub>-injury (MPB). LD<sub>50</sub> aqueous fruit extract (1:40) 160 mg/kg ipr mus (HH2).

**CHEKEN (*Luma chequen* (Molina) A. Gray.) ++****MYRTACEAE****Synonyms:**

*Eugenia chequen* Molina (basionym); *Myrtus chequen* (Molina) Spreng.; fide (USN).

**Common Names:**

Arrayán (Sp.; USN); Arrayán Blanco (Sp.; USN); Cheken (CRC2; USN); Chequén (Sp.; USN).

**Activities:**

Antihypertensive (f; PH2); Astringent (1; HHB; PH2); Bactericide (1; PH2); Digestive (f; PH2); Diuretic (f; HHB; PH2); Expectorant (f; HHB; PH2); Fungicide (1; PH2); Tonic (f; HHB; PH2).

**Indications:**

Bacteria (1; PH2); Bronchosis (f; EFS); Catarrh (f; HHB); Conjunctivosis (f; HHB); Diarrhea (f; PH2); Fungus (1; PH2); Gout (f; PH2); High Blood Pressure (f; PH2); Hyperlipoproteine-mia (f; PH2); Infection (1; PH2); Mycosis (1; PH2); Pulmonosis (f; HHB); Xanthinoxidosis (1; PH2).

**Dosages:**

FNFF = ? Fruits of related *Eugenia* often eaten (FAC).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**Extracts:**

Leaf oil effective against *Aspergillus niger*, *Pseudomonas aeruginosa*, and *Trichophyton mentagrophytes* (PH2).

**TARHUI (*Lupinus mutabilis* Sweet) +****FABACEAE****Synonyms:**

*Lupinus cruckshanksii* Hook.; fide (USN).

**Common Names:**

Altramuz (Sp.; LEG; POR); Andean Lupine (Eng.; POR; USN); Andenlupine (Ger.; POR; USN); Asul Tarwi (Ai.; Sa.; ROE); Chocho (Ecu.; Peru; Sp.; POR; USN); Chochos (Sp.; LEG); Chuchus (Sp.; LEG); Chuchus Muti (Bol.; Sp.; POR); Lupin des Andes (Fr.; POR); Lupino-Mutável (Brazil; Por.; USN); Muti (Sp.; LEG); Muutlik Lupiin (Estonia; POR); Pearl Lupin (Eng.; POR); Pearl Lupine (Eng.; LEG; USN); South American Lupine (Eng.; POR); Talhue (Que.; RAR); Talhui-Talhui (Ai.; Sa.; ROE); Tarhui (Bol.; Peru; Que.; Sp.; LEG; POR; RAR; USN); Tarin (Ai.; Sa.; ROE); Tarwi (Que.; LEG; POR; RAR; USN); Tauli (Ai.; Sa.; ROE); Tauri (Ai.; Aym.; Sa.; POR; ROE); Tremoço (Brazil; Por.; USN); Tuyak Tarhui (Ai.; Sa.; ROE).

**Activities:**

Abortifacient (f; ROE); Bovinifuge (f; LEG); CNS-Sedative (1; X9751462); Insecticide (f; RAR; SOU); Piscicide (f; RAR); Poison (f; LEG).

**Indications:**

Abscesses (f; ROE); Amenorrhea (f; ROE); Rheumatism (f; ROE); Sores (f; ROE); Susto (f; ROE).

**Dosages:**

FNFF = !! Widely consumed after processing in the Andes (JAD)

**Downsides:**

Contains toxic alkaloids (X9751462). As of July 2007, the FDA Poisonous Plant Database listed 14 titles alluding to toxicity of this species.

**Extracts:**

Alkaloids sparteine and lupanine toxic, but lupanine and lupin were less toxic than sparteine and at the studied doses all had a weak sedative effect on the CNS (X9751462).

**TOMATO (*Lycopersicon esculentum* Mill.) +++****SOLANACEAE****Illustrations:**

p 191 (TRA)

**Synonyms:**

*Lycopersicon lycopersicum* (L.) H. Karst.; *L. pyriforme* Dunal; *Solanum lycopersicum* L.; *S. lycopersicum* var. *cerasiforme*; fide (USN).

**Common Names:**

Bilatee Baigun (India; EFS); Fan Qie (Pin.; DAA); Fan Shie (China; EFS); Jitomate (Peru; EGG); Kukana (Aym.; Bol.; DLZ); Liebsapfel (Ger.; EFS); Liu Yüeh Shie (China; EFS); Love Apple (Eng.; EFS); Pac (Ma.; JFM); Paconca (Peru; EGG); Paradiesapfel (Ger.; HH2); Pireca (Peru; EGG); Pomme d'Amour (Fr.; AVP; EFS); Pomme d'Or (Fr.; AVP); Pomme du Perou (Fr.; AVP); Pomodoro (It.; EFS); Ppac (Ma.; JFM); Tomaat (Dutch; Sur.; AVP; EFS); Tomaquera (Peru; EGG); Tomat (Den.; Haiti; Swe.; EFS; TRA); Tomate (Bel.; Ger. Peru; Por.; Sp.; BNA; DAV; EFS); Tomato Chapadon (Ma.; JFM); Tomateiro (Por.; AVP); Tomatillo (Cr.; AVP); Tomato (Eng.; Scn.; AH2; USN).

**Activities:**

Acaricide (f; EGG); Allergenic (f; JFM); Analgesic (f; UPW); Antiaggregant (1; X11454256; X12587984); Antiatherosclerotic (1; X11229363; X12587984); Antiblister (f; JFM); Anticancer (1; FNF); Anticlastogenic (1; X14585182); Antidermatitic (1; X12747216); Antierythemic (1; X12747216); Antiescherichia (1; JAF50:5751); Antihistaminic (1; TRA); Antiinflammatory (1; TRA); Antileukemic (1; FT72:865); Antimaculitic (1; X12747216); Antimutagenic (1; TRA; X14585182); Antinitrosaminic (1; JNU); Antiobesity (1; JAF50:5751); Antioxidant (1; FNF; JAF50:5751; JNU); Antiplatelet (1; X11454256); Antiproliferant (1; FT72:865; TRA); Antiprostaitic (1; FNF); Antiradicular (1; FT72:865); Antiseptic (1; CRC; UPW); Antistaphylococcic (1; JAF50:5751); Antithrombic (1; X11454256); Antitumor (1; FT72:865); Aperient (f; CRC); Bactericide (1; JAF50:5751; PH2); Cardioprotective (1; X12587984); Cardiotonic (1; TRA); Chemopreventive (1; FNF; X14585182); Depurative (f; CRC; EFS; EGG); Digestive (f; CRC; EFS); Diuretic (f; EGG; JFM; UPW); Fungicide (1; CRC; JFM; UPW); Hemolytic (1; JAF50:5751; TRA); Herbicide (1; CRC); Hypocholesterolemic (1; FNF; TRA); Hypotensive (1; PH2; X12587984); Insecticide (1; EGG); Keratolytic (f; EGG); Larvicide (1; CRC); Orexigenic (f; EFS); Pectoral (f; CRC); Photoprotective (1; X12747216); Poison (1; CRC); Vermifuge (1; JFM).

**Indications:**

Acne (f1; FNF); Anemia (f; EGG); Anorexia (f; EFS; PH2); Arthrosis (f; DLZ); Asthma (1; FNF; JFM; JNU; TGP); Atherosclerosis (1; X11229363); Athlete's Foot (1; FNF; TGP); *Bacillus* (1; HH2); Bacteria (1; PH2); Blisters (1; JFM); Boils (f; CRC; JFM); BPH (1; FNF; JNU); Burns (f; JFM); Cancer (1; FNF); Cancer, breast (1; X12424336); Cancer, cervix (1; JNU); Cancer, colon (1; JNU; X15137822); Cancer, esophagus (1; JNU); Cancer, liver (f; FNF; JAF50:5751); Cancer, lung (1; JAF50:5751; JNU); Cancer, mouth (1; CRC; FNF; JLH; JNU); Cancer, pancreas (1; JNU); Cancer, prostate (1; CRC; FNF; JAF50:5751; JNU; X12424336); Cancer, rectum (1; JNU); Cancer, stomach (1; JNU); *Candida* (f1; HH2; TRA); Cardiopathy (f1; JFM; JNU); Cataracts (1; FNF); Cervicosis (1; JNU); Chilblains (f; CRC; DAA); Chills (f; PHR; PH2); Colds (f; PHR; PH2); Conjunctivosis (f; JFM); Corns (f; CRC; JLH; SOU); Coughs (f; CRC); Dandruff (f; DLZ); Dementia (1; JNU); Dermatitis (f1; DLZ; FNF); Diabetes (1; FNF); Diarrhea (f; UPW); Dyspepsia (f; PHR; PH2); Dysuria (f; JFM; UPW); Earache (f; UPW); Enterosis (1; JNU); Esophagosis (1; JNU); Fever (f; CRC); Flu (f; CRC; JFM; PH2); Fracture (f; EGG); Fungus (1; TRA); Gas (f; PH2); Gastrosis (1; JNU); Glaucoma (f; JNU); Gonorrhea (f; CRC; UPW); Gravel (f; CRC); Hangover (f; JAD); Hemorrhoids (f; CRC; JFM; SOU); High Blood Pressure (1; FNF; PH2; TGP); High Cholesterol (1; FNF; JNU; TRA); Induration (f; JLH); Infection (f1; CRC; DLZ; PH2; TRA; UPW); Inflammation (f; JFM); Itch (f; DLZ); Laryngosis (f; EGG; SOU); Leukemia (1; FT72:865); Listeria (1; JAF50:5751); Mastosis (1; JNU); Mycosis (f1; DLZ; TRA; UPW); Obesity (1; JAF50:5751); Ophthalmia (f1; CRC; PH2; X12747216); Otitis (f; CRC); Pain (f; UPW); Palpitations (f; CRC; JFM); Pancreatosis (1; JNU); Pharyngosis (f; HH2; JFM; PH2); Phthisis (f; CRC); Presbyopia (f; JNU); Proctosis (1; JNU); Pulmonosis (1; JNU); Rheumatism (f; PHR; PH2); Ringworm (f; CRC);

JFM); Sore Throat (f; JFM); Stomatosis (f1; HH2; JFM; JNU; PH2); Stroke (1; X11454256); Sunburn (f; CRC; EGG); Thrush (f; TRA); Tinea (f; DLZ); Tonsilosis (f; DLZ); Toothache (f; DAA; TRA); Tumors (f; CRC); Typhoid (f; CRC); Ulcers (f; CRC); VD (f; CRC); Vitiligo (f; CRC; UPW); Warts (f; JLH; UPW); Worms (f; JFM); Yellow Fever (f; JFM).

### Dosages:

FNFF = !!! Let this be one of your 5 fruits or 5 veggies per day.

- Asian Indians use the leaf tea for flu (HH2).
- Bolivians recommend fresh tomato juice for arthritis, fever, and watery infections, applying green juice to dandruff, dermatosis, itch, and tinea (DLZ).
- Bolivians take rum tincture of green tomatoes for tonsillitis (DLZ).
- Colombians around La Nueva take flower bud decoction for yellow fever (JFM).
- Cubans apply sliced tomato on burns to prevent blistering and pain (JFM).
- Curaçaoans apply green fruit to ringworm, and take for intestinal worms and sore throat (JFM).
- Curaçaoans take leaf decocted with 7 coffee beans for asthma (JFM).
- Haitians use leaf decoction for sore throat and stomatosis (HH2).
- Peruvians anoint hemorrhoids with tomato with or without salt (EGG).
- Peruvians apply green tomato juice as an acaricide (EGG).
- Peruvians rub corns with green tomatoes, apply juice or sliced tomato to sunburn (EGG).
- Tramilenyos poultice mashed leaves on burns (TRA).
- Tramilenyos rub green fruits and leaves on thrush (TRA).
- Trinidadans take leaf decoction for cardiac palpitations and flu (JFM).
- Venezuelans apply ripe fruit pulp to hemorrhoids, inflammation, and irritated eyes (JFM).

### Downsides:

Not covered (AHP; KOM). None reported at normal doses (PH2). Leaves are poisonous (can kill grazing animals) and green tomatoes may not be salubrious; toxicity not noted with less than 100 g. Symptoms include arrhythmia, bradycardia, colic, cramps, diarrhea, dizziness, dyspnea, headache, mucososis, vomiting, and in huge overdoses respiratory collapse (PH2). As of July 2007, the FDA Poisonous Plant Database listed 100 titles alluding to toxicity of this species.

### Extracts:

Lee et al. (X15137822) studied the potato trisaccharide glycoalkaloids alpha-chaconine and alpha-solanine, the disaccharides beta(1)-chaconine, beta(2)-chaconine, and beta(2)-solanine, the monosaccharide gamma-chaconine and their common aglycon solanidine, the tetrasaccharide potato glycoalkaloid dehydrocommersonine, the potato aglycon demissidine, the tetrasaccharide tomato glycoalkaloid alpha-tomatine, the trisaccharide beta(1)-tomatine, the disaccharide gamma-tomatine, the monosaccharide delta-tomatine, and their common aglycon tomatidine, the eggplant glycoalkaloids solamargine and solasonine and their common aglycon solasodine, and the nonsteroidal alkaloid jervine. All compounds were active in the assay, with the glycoalkaloids being the most active and the hydrolysis products less so. The effectiveness against the liver cells was greater than against the colon cells. Potencies of alpha-tomatine and alpha-chaconine at a concentration of 1 µg/ml against the liver carcinoma cells were higher than those observed with the anticancer drugs doxorubicin and camptothecin. Because alpha-chaconine, alpha-solanine, and alpha-tomatine also inhibited normal human liver HeLa (Chang) cells, safety considerations should guide the use of these compounds as preventative or therapeutic treatments against carcinomas (X15137822).

**BOTONERA (*Lycoseris latifolia* (D. Don) Benth.) +****ASTERACEAE****Synonyms:**

*Lycoseris crocata* Blake; *L. oblongifolia* Rusby; fide (USN).

**Common Names:**

Botonera (Ven.; JFM; MPG); Chilca Real (Ven.; JFM; MPG); Mapola (Col.; Ma.; IED; JFM); Marrubio (Ma.; JFM); Viravira (Ma.; JFM). (Nscn).

**Activities:**

Antispasmodic (f; MPG); Diuretic (f; DAW; JFM); Emmenagogue (f; DAW; JFM); Hemostat (f; JFM).

**Indications:**

Amenorrhea (f; JLH); Bleeding (f; JFM); Cancer (f; JLH); Cramps (f; MPG); Dysmenorrhea (f; JFM); Metrorrhagia (f; JFM); Oliguria (f; JLH); Spasms (f; MPG).

**Dosages:**

FNFF = ?

- Venezuelan Indians use decoction to stop female hemorrhage (JFM).
- Venezuelans poultice the plant onto cancer (JLH).
- Venezuelans take strong decoction night and morning, or a spoonful of powdered root in wine, to regulate the menstrual cycle (JFM).

**WIRE VINE (*Lygodium venustum* Sw.) +****SCHIZAEACEAE****Illustrations:**

p 196 (AAB)

**Synonyms:**

*Lygodium commutatum* C. Presl; *L. mexicanum* C. Presl; *L. polymorphum* (Cav.) Kunth.

**Common Names:**

Alhambre Xiv (Bel.; Maya; Sp.; AAB); Bejuco de Alhambre (Bel.; Sp.; AAB); Wire Vine (Eng.; JAD); Wire Wis (Bel.; Eng.; AAB).

**Activities:**

Antiseptic (f; AAB); Fungicide (f; AAB); Trichomonicide (1; X17628366); Vulnerary (f; AAB).

**Indications:**

Dermatosis (f; AAB); Fungus (f; AAB); Headache (f; AAB); Infection (f; AAB); Mycosis (f; AAB); Rashes (f; AAB); Sores (f; AAB); Trichomoniasis (1; X17628366); Wounds (f; AAB).

**Dosages:**

FNFF = ?

- Belizeans apply fresh plant juice or soak dermatoses, fungal infections, rashes, and sores in decoction (2 handful leaves/qt water 10 min) (AAB).
- Belizeans poultice the leaves onto the forehead for headache (AAB).
- Trinidadans take rootstick decoction of *Lygodium volubile* for urinary burning and venereal disease (JFM).



**Extracts:**

Methanolic extract moderately trichomonocidal against *Trichomonas vaginalis*, less active than metronidazole (IC<sub>50</sub> = 0.037 µg/ml) (X17628366).

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# M

## MACFADYENA (*Macfadyena unguis-cati* (L.) A. H. Gentry) ++

### BIGNONIACEAE

#### Synonyms:

*Bignonia tweedieana* Lindl.; *B. unguis-cati* L.; *Doxantha unguis-cati* (L.) Miers; fide (USN).

#### Common Names:

Andirapoampe (Por.; GMJ); Anilapape (Wayāpi; GMJ); Bejuco Agajero (Ma.; JFM); Bejuco Aguadero (Ma.; JFM); Bejuco Azucena (Ma.; JFM); Bejuco de Agaje (Ma.; JFM); Cashi Tae (Peru; Sp.; LOR); Catclaw-Creeper (Eng.; Ocn.; AH2; JFM; USN); Catclaw-Trumpet (Eng.; Ocn.; AH2; USN); Cat's-Claw (Eng.; Ocn.; AH2; USN); Cat's Claw Creeper (Eng.; USN); Cipo de Gato (Brazil; JFM; MPB); Ecki Xilac (Ma.; JFM); Ekkixil (Ma.; JFM); Erva de Morcego (Brazil; MPB); Erva de Sao Domingos (Brazil; MPB); Funnel-Creeper (Eng.; Ocn.; AH2; USN); Garra de Murceilago (Peru; Sp.; LOR); Griffes Chatte (Creole; Guy.; GMJ); Griffes a Chatte (Ma.; JFM); Gwif Chat (Ma.; JFM); Katteklouranker (Afrikaans; USN); Koko Chat (Ma.; JFM); Liana Unyada (Ma.; JFM); Macfadyena (Eng.; Scn.; AH2; USN); Mano de Cacharo (Ma.; JFM); Mao de Calango (Brazil; MPB); Mashuricra (Ma.; JFM); Msibiu Awak (Palikur; GMJ); Pega Palo (Ma.; JFM); San Pedro de Guia (Ma.; JFM); Unha de Gato (Brazil; MPB); Unya de Gato (Peru; Sp.; LOR); Xanicab (Ma.; JFM); Xcanloac (Ma.; JFM); Xkanol Ak (Ma.; JFM).

#### Activities:

Analgesic (f; DAV); Anticancer (1; X10757425); Antidote (hippomane) (f; JFM); Antiinflammatory (f; MPB; X10757425); Antimalarial (f; X10757425); Antitrypanosomal (1; X10757425); Antitumor (1; X10757425); Antitussive (f; DAV); Antivenereal (f; X10757425); Cyclooxygenase-Inhibitor (1; X10757425); Diuretic (f; MPB); Febrifuge (f; DAV; GMJ); Hemostat (f; JFM); Lipooxygenase-Inhibitor (1; X10757425).

#### Indications:

Arthrosis (f; DAV); Bleeding (f; JFM); Bronchosis (f; JFM); Cancer (1; X10757425); Catarrh (f; JFM); Coughs (f; DAV); Diarrhea (f; MPB); Enterosis (f; MPB); Fever (f; DAV; GMJ); Flu (f; DAV; GMJ); Headache (f; DAV); Inflammation (f; MPB; X10757425); Malaria (f; MPB; X10757425); Pain (f; DAV); Rheumatism (f; DAV); Snake Bite (f; MPB); Splenosis (f; JFM); Syphilis (f; JFM); Trypanosomiasis (1; X10757425); Tumors (1; X10757425); VD (f; JFM; MPB; X10757425).

#### Dosages:

FNFF = ? Crushed leaves are applied to stop bleeding (JFM).

- Brazilians use the aqueous extract in malaria and VD (MPB).
- Panamanian Indians use the plant as antidote to Hippomane and snake bite (JFM).
- Yucatanese take plant decoction for spleen ailments (JFM).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.

**Extracts:**

Leaf and liana fractions show anticyclooxygenase, antilipoxygenase, antitrypanosomal, and antitumor activity (X10757425).

**FUSTIC (*Maclura tinctoria* (L.) D. Don ex Steud.) ++****MORACEAE****Illustrations:**

fig 287 (LWW)

**Synonyms:**

*Chlorophora tinctoria* (L.) Benth. & Hook. f.

**Common Names:**

Amarelo (Por.; AVP); Amarillo (Bol.; Peru; AVP; LWW); Amoeira Brava (Por.; AVP); Amoreira-Branca (Por.; USN); Auroreira (Brazil; LWW); Avinge (Col.; LWW); Bois d'Orange (Trin.; AVP); Bois Jaune (Fr.; Haiti; AHL; USN); Brasil (Cr.; AVP); Charaguaney Hembra (Ma.; JFM); Charo (Ven.; AVP); Cononatiqui (Ashaninka; RAR); Cordoncillo (Peru; AVP); Cubanwood (Eng.; USN); Dinde (Col.; AVP); Dyer's Mulberry (Eng.; MPB; USN); Escambron de Madera (Pr.; LWW); Espinho Branco (Brazil; MPB); Färbermaulbeerbaum (Ger.; USN); Fiselholz (Ger.; AVP); Fisetholz (Ger.; AVP); Fresno de America (Cuba; AVP); Fustete (Dor.; AHL); Fustete Amarillo (Sp.; USN); Fustetto Vecchio (It.; AVP); Fustic (Dor.; Pr.; AHL; AVP); Fustic-Mulberry (Eng.; USN); Fustic Tree (Jam.; AVP); Fustic Wood (Eng.; AVP); Fustik (Ger.; AVP); Fustique (Fr.; AVP); Geelhout (Dutch; AVP); Gelbholz (Ger.; AVP); Iguirae (Chiriguana; DLZ); Incira (Peru; RAR); Insira (Mapiri; Peru; Sp.; Tacana; AVP; LOR; MDD); Insira Amarillo (Peru; Sp.; LOR); Insira Caspi (Peru; RAR); Insira Limulana (Peru; RAR); Jataiba (Por.; AVP); Jocomico (Hon.; AVP); Jurema de Espinho (Brazil; LWW); Kogroji (Piro; RAR); Laurel Amarillo (Ma.; JFM); Lechero (Ma.; JFM); Legno Giallo (Dutch; AVP); Limaorana (Brazil; RAR); Limulana (Peru; AVP); Limuwana (Aym.; Bol.; DLZ); Macano (Pan.; AVP); Madrial (Hon.; AVP); Malal Fustete (Col.; LWW); Mora (Sp.; IED; USN); Mora Amarilla (Sp.; Ven.; AVP; USN); Mora Blanca (Bol.; DLZ); Mora de Clavo (Ma.; JFM); Mora de Loma (Ma.; JFM); Mora del Pais (Cuba; AVP); Mora de Piedra (Ma.; JFM); Moradillo (Mex.; AVP); Moral (Ecu.; AVP); Moral Bobo (Ecu.; AVP); Moral del Clavo (Mex.; JFM; LWW); Moral Fino (Ecu.; AVP); Moral Fustete (Col.; AVP); Mora Lisa (Ven.; LWW); Moral Liso (Ma.; JFM); Mora Macho (Dor.; AHL; LWW); Moreira (Brazil; MPB); Morillo (Cr.; Pan.; LWW); Morita (Col.; LWW); Mûrier des Teinturiers (Fr.; USN); Mûrier du Pays (Guad.; Mart.; AVP); Oiticicia (Brazil; MPB); Old Fustic (Eng.; USN); Paaloe Doesji (Curacao; AVP); Palo Amarilla (Dor.; AHL); Palo de Mora (Cr.; Dor.; Sal.; Sp.; MPG; USN); Palo Moral (Mex.; AVP); Palo Moro (Ma.; JFM); Palo Naranjo (Ma.; JFM); Palo Negro (Guat.; AVP); Palu di Cabeï (Ma.; JFM); Palu di Mora (Dwi.; LWW); Palu Dushi (Dwi.; LWW); Palu Dushi di Cabeï (Dwi.; LWW); Pao Naranjo (Trin.; AVP); Quebracho de Cerro (Hon.; AVP); Red Fustic (Jam.; AVP); Runa (Por.; AVP); Snook (Jam.; AVP); Stockvischhout (Dutch; AVP); Tajuba (Brazil; MPB); Tajuva (Brazil; LWW); Tatajuba (Brazil; MPB); Tatayba (Par.; AVP); Tatayiba (Par.; AVP); Tatayiva Saiyu (Arg.; LWW); Tauba (Brazil; MPB); Tayuva (Brazil; RAR); Yagahuil (Ma.; JFM); Yellow Wood (Eng.; AVP); Zarzamora (Peru; SOU); Zoet Hout (Ma.; JFM).

**Activities:**

Analgesic (f; RAR); AntiHIV (1; JNP63:1537); Antioxidant (1; JNP66:1061; 60P); Antiseptic (1; MPG; 60P); Antitussive (f; RAR); Antiviral (1; JNP63:1537); Astringent (f; RAR);

Bactericide (1; MPG); Candidicide (f; PM67:87); Carminative (f; JFM); Cicatrizant (f; MPB); Dentifuge (f; IED); Digestive (f; JFM); Diuretic (f; DLZ; UPH); Fungicide (f; PM67:87); Laxative (1; 60P); Molluscicide (1; MPG); Purgative (f; IED); Sialagogue (1; JFM); Tonic (f; DAW; RAR); Vermifuge (f; DAW).

**Indications:**

Bacteria (1; MPG); Blennorrhoea (f; DAV); *Candida* (f; PM67:87); Catarrh (f; SOU); Chest Ache (f; MPG); Colds (f; DAW; JFM); Constipation (1; 60P); Coughs (f; MPG; RAR); Diarrhea (f; JFM); Dyspepsia (f; JFM); Dysuria (f; DAV); Fungus (f; PM67:87); Gas (f; JFM); Gingivorrhagia (f; EFS); Gout (f; DAW; DLZ); Heartburn (f; JFM); Hepatosis (f; MPG); HIV (1; JNP63:1537); Infection (1; MPG; JNP63:1537; PM67:87; 60P); Malaria (f; JFM); Mycosis (f; PM67:87); Nephrosis (f; MPG); Neurosis (f; JFM); Odontectomy (f; EB24:356); Pain (f; MPG; RAR); Pharyngosis (f; RAR); Rheumatism (f; DAW); Sore Throat (f; DAW; 60P); *Staphylococcus* (1; MPG); Stomatosis (f; DAW; SOU); Syphilis (f; RAR); Toothache (f; IED); VD (f; DAW; DLZ); Viruses (1; JNP63:1537); Worms (f; DAW; JFM); Wounds (f; MPG).

**Dosages:**

FNFF = ? Fully ripe fruits eaten but may irritate (JFM). Dried sap sialagogue, used as a masticatory (JFM).

- Argentinians take 3 cups/day of decoction (20 g wood/l water, 10 min) for gas, heartburn, nervous diarrhea, and dyspepsia (JFM).
- Bolivians use shoot tincture topically for gout and rheumatism (DLZ).
- Jamaicans apply wood ashes to gout and rheumatism (JFM).
- Mexicans use bark for cough, fever, hepatitis, pain, wounds, and hexes (MPG).
- Peruvians put latex of tree into caries (JAD).
- Salvadorans tamp latex in carious teeth which reportedly fall out in 15 days (MPG).

**Downsides:**

Fruits irritate the lips (MPG). As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**MALACHRA (*Malachra alceifolia* Jacq.) ++**

**MALVACEAE**



**Illustrations:**

fig 143 (DAV)

**Synonyms:**

*Malachra fasciata* Jacq.

**Common Names:**

Bastard Okra (Ma.; Pr.; JFM; USN); Giambo Shimaron (Ma.; JFM); Gombo Batarde (Guad.; AVP); Guimauve (Haiti; AVP); Hierba de Sapo (Ma.; JFM); Malachra (Eng.; USN); Malba (Bel.; BNA); Malva (Bel.; Dor.; Peru; Sp.; LOR; MDD; SOU); Malva Borracha (Ma.; JFM); Malva de Caballo (Ma.; Pr.; Sp.; JFM; USN); Malva de Pais (Ma.; JFM); Malva Macho (Ma.; JFM); Malva Mulata (Cuba; AVP); Malva Te (Dor.; AHL); Malwa (Piro; Yine; MD2); Maraba (Shipibo/Conibo; MD2); Quesillo (Sp.; USN); Quiaborrano (Ma.; JFM); Quiaborrano de Esponjos (Brazil; JFM); Wild Broom (Ma.; JFM); Wild Ochra (Ma.; JFM); Wild Okra (Bel.; BNA; USN). (Nscn).

**Activities:**

Emollient (f; RAR; SOU).

**Indications:**

Bronchosis (f; MD2); Cardiopathy (f; JFM); Childbirth (f; MD2); Colds (f; MD2); Coughs (f; JFM; MD2); Diabetes (f; JFM); Dysentery (f; JFM); Dysuria (f; JFM); Enterosis (f; JFM; MD2); Fever (f; JFM; MD2); Flu (f; MD2); Gastrosis (f; DAV); Headache (f; MD2); Infection (f; MD2); Nephrosis (f; DAV); Prolapse (f; MD2); Sores (f; JFM); Sore Throat (f; JFM); Stomachache (f; DAV); Uterosis (f; MD2); Vaginosis (f; MD2); Wounds (f; JFM).

**Dosages:**

FNFF = ?

- Curaçaoans take leaf decoction for diabetes and urinary disorders (JFM).
- Madre de Dios Peruvians suggest the plant juice, or tea, for bronchitis, childbirth, cough, enterosis, flu, infections, and uterosis (MD2).
- Trinidadans gargle the leaf decoction for cough and sore throat (JFM).
- Venezuelans take decoction for dysentery and fever (JFM).
- Virgin Islanders take as a refrigerant for bad heart and enterosis (JFM).
- West Indians take flower decoction as emollient and for urinary burning (JFM).
- West Indians poultice mucilaginous leaves on sores and wounds (JFM).

**Downsides:**

Hairs are irritant (JFM). As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

## ELEMUY (*Malmea depressa* (Baill.) R. E. Fr.) +

### ANNONACEAE

**Illustrations:**

p 184 (AAB); p 126 (MAX)

**Synonyms:**

*Annona depressa* Baill. (basonym); *Guatteria gaumeri* Greenm.; *G. leiophylla* Saff.; *Malmea gaumeri* (Greenm.) Lundell; fide (BNA; JFM; USN).

**Common Names:**

Box Elemuy (Ma.; JFM); Che Che (Bel.; BNA); Chief of Herbs (Bel.; BNA); Ekle'Muy (Maya; Mex.; MAX); Elemuy (Bel.; Maya; Mex.; Sp.; AAB; MAX; USN); Elemuy Box (Maya; Mex.;

MAX); Eremuel (Bel.; BNA); Eremuil (Bel.; Sp. AAB; BNA); Itz Imul (Bel.; BNA); Lancewood (Eng.; JFM; USN); Mahana (Bel.; BNA); Sufrekaya (Bel.; BNA); Wild Coffee (Bel.; Eng.; AAB; BNA); Wild Soursop (Eng.; BNA; JFM; USN). (Nscn).

**Activities:**

Analgesic (f; X8991955); Diuretic (f; JFM); Febrifuge (f; AAB); Herbistat (1; X8991955); Hypoglycemic (1; X15990260).

**Indications:**

Arthrosis (f; AAB); Backache (f; AAB); Calculus (f; JFM; MAX); Cramps (f; AAB); Cystosis (f; JFM; MAX); Dermatitis (f; AAB); Diabetes (1; X15990260); Dysmenorrhea (f; AAB); Fever (f; AAB); Gallstones (f; JFM; MAX); Gonorrhoea (f; JFM); Headache (f; AAB); Hepatitis (f; X8991955); Hysteria (f; AAB); Insomnia (f; AAB); Leukorrhoea (f; MAX); Malaise (f; AAB); Nephrosis (f; JFM); Nervousness (f; AAB); Pain (f; X8991955); Pellagra (f; MAX); Rheumatism (f; AAB); Stones (f; JFM; MAX); VD (f; JFM).

**Dosages:**

FNFF = ! Fruits eaten locally (JFM).

- Belizeans bathe in warm tea (1 qt leaves/gal water, boil 10 min, cool a bit) for arthritis, backache, fever, insomnia, malaise, nervousness, and rheumatism (AAB).
- Belizeans take tea (9 fresh leaves/3 cups water, 5 min) for headache, hysteria, insomnia, menstrual cramps, and nervousness (AAB).
- Mayans take decoction of roots and corn silk for gonorrhoea (JFM).
- Mexicans use as analgesic and to treat kidney stones, liver problems, and pellagra (JFM; MAX).
- Yucatanese take decoction as diuretic (JFM).
- Yucatanese take the bark extract (1–6 drops every 3 hr for a few weeks) for large bladder stones (MAX).

**Extracts:**

Water, ethanolic, and butanolic root extracts (water at 40 and 80 mg/kg, ethanolic 112 mg/kg, and butanolic 80 mg/kg) significantly lowered plasma glucose levels in diabetic rats, cf. glibenclamide and metformin (X15990260).

**CHICLE CASPI (*Malouetia tamaquarina* (Aubl.) A. DC.) ++**

**APOCYNACEAE**



**Illustrations:**

fig 144 (DAV); p 68 (SAR)

**Synonyms:**

*Cameraria tamaquarina* Aubl.

**Notes:**

Sometimes used as adjuvant to ayahuasca and curare mixes (SAR).

**Common Names:**

Chicle (Peru; Sp.; LOR); Chicle Caspi (Peru; Sp.; LOR; MDD); Chuchara Caspi (Peru; RAR); Cuchara Caspi (Col.; Peru; SAR; SOU); Cullara (Tikuna; SAR); Guayeee Ga Mo'yeese (Makuna; SAR); Pomka (Puinave; SAR); Yauwa Hau'kee (Kubeo; SAR).

**Activities:**

Vulnerary (f; DAV).

**Indications:**

Wounds (f; DAV).

**Dosages:**

FNFF = ?

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed five titles alluding to toxicity of this species.

M

**SLEEPING HIBISCUS (*Malvaviscus arboreus* Cav.) +****MALVACEAE****Illustrations:**

fig 193B (DAV)

**Synonyms:**

*Achania mollis* Aiton; *Malvaviscus arboreus* Cav. var. *brihondi* Schery; *M. arboreus* Cav. var. *drummondii* (Torr. & A. Gray) Schery; *M. arboreus* Cav. var. *mexicanus* Schltldl.; *M. arboreus* Cav. var. *penduliflorus*; *M. brevibracteatus* Baker f.; *M. grandiflorus* HBK.; fide (BNA; USN).

**Common Names:**

Amapola (Ma.; JFM); Amapolilla (Ma.; JFM); Arito (Ma.; JFM); Bizil (Ma.; JFM); Boot-black Flowers (Bel.; BNA); Catusa (Bel.; BNA); Civil (Mex.; PCS); Capuchito (Ma.; JFM); Capuyito (Ma.; JFM); Chilillo (Ma.; JFM); Civil (Ma.; JFM); Clavel Encarnado (Guat.; PCS); Cucarda Caspi (Peru; Sp.; DAV; LOR); Drummonds Wax Mallow (Eng.; USN); Estrella de Panama (Guat.; PCS); Flor de Arito (Ma.; JFM); Flor de Santos (Sp.; USN); Mahoe Rose (Ma.; JFM); Majagüilla (Cuba; PCS); Malvavisco (Peru; DAV); Malvavisco Arborescente (Bol.; DLZ); Malvito (Ma.; JFM); Manzana (Ma.; JFM); Manzanilla (Mex.; PCS); Manzanillo (Sp.; USN); Manzanita (Mex.; PCS); Manzanita Quesillo (Sal.; PCS); Mapola (Ma.; JFM); Mazapán (Mex.; PCS); Monacillo (Mex.; Sp.; PCS; USN); Monacillo Colorado (Mex.; PCS); Monaguillo (Ma.; JFM); Obelisco de la Sierra (Ma.; Sp.; JFM; USN); Old Man's Apple (Bel.; BNA); Papito de Monte (Ma.; JFM); Pepper Hibiscus (Eng.; DAV; RAR); Pico de Gorrion (Ma.; JFM); Piñón Ceqeati (Peru; DAV); Polvo de Monte (Ma.; JFM); Poro (Ma.; JFM); Quesillo (Nic.; PCS); Quesito (Ma.; JFM); Resucitado de Monte (Ma.; JFM); Sleeping Hibiscus (Eng.; JFM; RAR; VOD); Sobon (Ma.; JFM); Sugar Bark (Ma.; JFM); Tamanchich (Ma.;

JFM); Texas Mallow (Eng.; USN); Tripa de Buey (Sp.; USN); Tulipán (Bel.; BNA); Tulipancia (Bel.; BNA); Tulipancillo (Bel.; Sp.; BNA; USN); Tulipán de Monte (Bel.; BNA); Tulipanoia (Bel.; BNA); Turk's Cap (Eng.; RAR; USN; VOD); Wax Mallow (Eng.; RAR; VOD); White Moho (Bel.; BNA); Wild Apple (Bel.; BNA); Wild Mahoe (Eng.; JFM). (Nscn; American entries diacritically prepared).

**Activities:**

Emollient (f; DAW; JFM); Febrifuge (f; DAW; JFM); Pectoral (f; DAW); Pediculicide (f; VOD).

**Indications:**

Adenopathy (f; DAW); Amygdalosis (f; DAW); Aphtha (f; DAW); Bronchosis (f; VOD); Colds (f; VOD); Diarrhea (f; DAW; DLZ; VOD); Dysentery (f; DAW; DLZ; VOD); Earache (f; DAV); Fever (f; DAW; JFM); Gastrosis (f; DLZ; JFM); Infection (f; VOD); Pediculosis (f; VOD); Pulmonosis (f; DAW); Sore Throat (f; JFM); Thrush (f; VOD); Tonsilosis (f; VOD); Yeast (f; VOD).

**Dosages:**

FNFF = ! Fruit edible cooked or raw (PCS).

- Costa Ricans take the leaf decoction for cystitis, diarrhea, and gastrosis (JFM).
- Cubans gargle the floral decoction for sore throat (JFM).
- Dominicans apply leaf juice to lice, seborrhea, and wounds (VOD).
- Dominicans give the floral decoction to nursing infants with colds (VOD).
- Haitians and Mexicans drink the flower decoction for bronchosis, diarrhea, dysentery, thrush, and tonsilitis (AVP; VOD).
- Hondurans take the leaf decoction for fever (JFM).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

## ABRICÓ (*Mammea americana* L.) +++

### CLUSIACEAE

**Illustrations:**

p 518 (AHL)

**Synonyms:**

*Mammea emarginata* Moc. & Sessé ex Choisy; fide (USN).

**Notes:**

West Indians make a liqueur from the flowers (AHL).

**Common Names:**

Abricó (Eng.; Por.; Scn.; AH2; AVP; USN); Abrico de Para (Brazil; Por.; AVP; RAR); Abricot (Ma.; JFM); Abricot de Amerique (Fwi.; AVP); Abricot de Santa Domingue (Fwi.; AVP); Abricot des Antilles (Ma.; JFM); Abricot do Para (Ma.; JFM); Abricoteiro (Por.; AVP); Abricotier (Fr.; Haiti; AVP; USN); Abricotier d'Amérique (Fr.; USN); Abricotier des Antilles (Fr.; USN); Abricot Pays (Fwi.; AVP); Abricot Selvagem (Fwi.; JFM); Albicocca (It.; AVP); Albicocco (It.; AVP); Albricogue (Sp.; USN); Apricot (Eng.; Ma.; JFM); Aprikosen (Ger.; AVP); Aprikosenbaum (Ger.; AVP); Chacalhaaz (Ma.; JFM); Jambo (Peru; EGG); Mamai (Peru; EGG); Mamaja (Sur.; AVP); Mamaya (Dutch; Sur.; AVP); Mamey (Cuba; Eng.; Pan.; Peru; Sp.; AHL; AVP; EGG; VOD); Mamey Abricotier (Haiti); Mamey Amarillo (Sp.; AHL);



Mamey de Santo Domingo (Cuba; RyM); Mami (Dutch; Sur.; AVP); Mamie Boom (Dutch; Sur.; AVP); Mamma Apple (Eng.; AHL); Mammee-Apple (Eng.; USN); Mammee Sapote (Jam.; Trin.; AVP); Mammi (Dutch; Sur.; AVP); Mammiafel (Ger.; USN); Mammy-Apple (Eng.; USN); Man Nu Kuo (China; TAN); Mataserrano (Ma.; JFM); Mela Mamea (It.; AVP); Otere (Ticuna; EGG; SOU); Pecego de Sau Domingos (Ma.; JFM); Pie Zabricot (Haiti; AVP); Pyé Zabriko (Creole; Haiti; VOD); Ruri (Nic.; AHL); Santo Domingo Apricot (Eng.; Ma.; JFM; TTS); Sapote de Santo Domingo (Mex.; AVP); Shru (Cr.; AHL); Thsep (Cr.; AHL); Tropical-Apricot (Eng.; USN); Zabricot (Haiti; AHL; AVP); Zabriko (Creole; Haiti; VOD); Zabriko dé San Domingue (Creole; Haiti; VOD); Zapote de Cartagena (Pan.; AVP); Zapote de Santo Domingo (Ma.; JFM); Zapote Mamey (Ma.; JFM); Zapote Ninyo (Ma.; JFM).

### Activities:

Acaricide (f; DAW; EGG; JFM); Anthelmintic (f; EGG; SOU); Antiseptic (f1; AHL; DAW; X9883470); Antitubercular (1; X9883470); Antitumor (1; X4672389); Antiulcer (1; X15957368); Avicide (f1; JFM); Bactericide (1; X9883470); Cicatrizant (f; DAW; VOD); Cytotoxic (1; X4672389); Digestive (f; VOD); Discutient (f; DAW); Febrifuge (f; SOU); Hypotensive (f; EB30:132; JFM); Insecticide (f1; EB30:132; EGG; VOD); Insectifuge (f1; EB30:132; EGG; JFM); Ixodicide (f; AHL; IHB); Parasiticide (f; DAW; JFM); Pediculicide (f1; EB30:132; JFM); Piscicide (f1; IED; JFM); Poison (1; IED); Stomachic (f; DAW; VOD); Suppurative (f; DAW); Tonic (f; DAW); Vermifuge (f; JFM); Vulnerary (f; AHL; DAW; VOD).

### Indications:

Bacteria (1; X9883470); Cancer (1; X4672389); Coughs (f; EB30:132); Dermatitis (f; DAW; JFM; VOD); Dyspepsia (f; EB30:132; JFM; VOD); Ectoparasites (f; VOD); Eczema (f; EGG; JFM; VOD); Fever (f; EGG; IED; SOU); High Blood Pressure (f; EB30:132; JFM); Infection (f1; AHL; DAW; X9883470); Lice (f; JFM); Malaria (f; JFM); *Mycobacterium* (1; X9883470); Parasites (f; DAW; EGG; JFM; VOD); Pediculosis (f1; EB30:132; JFM); Sores (f; AHL); Tuberculosis (1; X9883470); Ulcers (1; X15957368); Worms (f; EGG; JFM; SOU); Wounds (f; AHL; DAW; VOD).

### Dosages:

FNFF = !! The fruits edible and good.

- Brazilians apply the fruit rind to parasitic skin diseases (JFM).
- Brazilians put the resin on bugbites (JFM).
- Brazilians remove the embryo, then take 2 g pulverized seed infused in 400 g hot water for worms (JFM).
- Cubans use bark decoction for parasitic dermatoses and eczema (JFM).
- Ecuadorians take the leaf decoction for malaria that is not responding to quinine (JFM).
- Guatemalans use resin tincture to remove chiggers (JFM).
- Haitians apply the fruit pulp as cicatrizant and vulnerary, and apply the decoction to wounds (VOD).
- Haitians use flowers in digestive and stomachic preparations (VOD).
- Haitians use grated fruit as insecticide (VOD).
- Haitians use gummy resin to extract chiggers from their feet (VOD).
- Haitians use resin or bark decoction for ectoparasites, eczema, and hair (VOD).
- Hispaniolans fold the leaves near recently planted tobacco to protect them from insects and rodents (AHL).
- Peruvians suggest the pulverized seed or seed decoction as anthelmintic (EGG).
- Surinamese poultice powdered seed onto boring sandfleas (JFM).
- Trinidadans take the bark decoction for cough (JFM).
- Trinidadans take the fruit rind decoction for dyspepsia (JFM).

- Trinidadians take the leaf decoction for high blood pressure (JFM).
- Trinidadians use powdered seed in coconut oil to destroy head lice (JFM).

**Downsides:**

Fruit rind considered poisonous (VOD). As of July 2007, the FDA Poisonous Plant Database listed seven titles alluding to toxicity of this species.

**Extracts:**

Of 50 plants screened for anti-TB activity, *Mammea* showed the most inhibitory activity (X9883470).

**CASSAVA (*Manihot esculenta* Crantz) +  
EUPHORBIACEAE**

**Illustrations:**

p 199 (TRA)

**Synonyms:**

*Tatropa manihot* L.; *Manihot utilissima* Pohl; fide (USN).

**Notes:**

Masato is just a fermented beverage, often after chewing and expectoration, but some natives add a fungus that grows on the yuca or from the tree, "leche caspi," and this makes it much more potent, sometimes inciting them to fight (SOU).

**Common Names:**

Aanuwa (Bora; EGG); Abam (Amuesha; Yanasha; EGG; SOU); Adtza (Pano; EGG; RAR; SOU); Adza (Conibo; EGG; RAR); Aipim (Ma.; JFM); Ali (Ma.; JFM); Atra (Chacobo; DLZ); Atsa (Cashibo; Conibo; Shipibo; EGG; RAR; SOU); Atza (Conibo; SOU); Aybi (Tupi; RAR); Ayipi (Creole; VOD); Aypi (Aym.; DLZ); Banankou (Sudan; AVP); Batoetoe (Ma.; JFM); Bitter Cassava (Ocn.; AH2); Boniata (Dor.; AVP); Brazilian Arrowroot (Eng.; Ocn.; AH2; USN); Camagnoc (Haiti; AHL); Canari (Campa; RAR); Cañiiri (Ashaninka; EGG); Canri (Antis; EGG; RAR); Canti (Antis; SOU); Canyiri (Campa; SOU); Casaba (Ma.; JFM); Casabe (Ma.; JFM); Casabi (Car.; Ma.; JFM; VOD); Casava (Hon.; AVP); Casawa (Moseten; DLZ); Cassada (Ma.; JFM); Cassareep (Pr.; AVP); Cassava (Eng.; Scn.; Trin.; AH2; AVP; USN; VOD); Cassave (Sur.; AVP); Caucho Blanco (Sal.; AVP); Caxcamote (Gaut.; AVP);

Ceara (Chiquitano; DLZ); Cerro de la Olla (Sal.; AVP); Chimeca (Piro; EGG; SOU); Chunopa (Inga; EGG; RAR; SOU); Chunopa Rumu (Inga; EGG; RAR; SOU); Cuabe (Tacana; EGG; RAR; SOU); Cuacamote (Ma.; JFM); Cuave (Bol.; Tacana; DLZ); Eequi (Tiatinagua; EGG; RAR; SOU); Guacamote (Mex.; AVP); Hatsa (Cashibo; EGG; SOU); Hatza Moca (Amahuaca; RAR); Huacamote (Mex.; AVP); Jimeca (Piro; EGG; RAR; SOU); Juca (Car.; VOD); Kaniri (Campa; SOU); Kanyiri (Campa; SOU); Kasaba (Japan; Ma.; JFM; USN); Kassave (Ger.; USN); Ketela Poehoen (Ma.; JFM); Kineg (Palikur; GMJ); Kiniki (Palikur; GMJ); Maam (Amuesha; EGG; RAR; SOU); Macarera (Brazil; RAR); Macaxeira (Brazil; RAR); Mam (Amuesha; RAR; SOU); Mama (Huambisa; SOU); Mamusa (Ma.; JFM); Mandiina (Chiriguano; DLZ); Mandioca (Peru; Por.; Sp.; AVP; LOR; MDD; USN); Mandioca Brava (Arg.; AVP); Mandioca Maniba (Por.; AVP); Mandioporopi (Chiriguano; DLZ); Manduina (Chiriguano; DLZ); Mangnioc (Haiti; AHL); Manic (Wayapi; GMJ); Manioc (Eng.; Ocn.; AH2; USN; VOD); Manioca (It.; AVP); Manioc Amer (Guad.; Guy.; Haiti; Mart.; AVP); Manioc Americain (Haiti; AHL); Manioc Bandiato (Sp.; AVP); Manioc Doux (Haiti; AHL); Manioc Pour Table (Haiti; AHL); Maniok (Ger.; USN); Maniveira (Brazil; RAR); Manoco (Sp.; AVP); Manyok (Creole; Haiti; Mart.; TRA; VOD); Manyok Ame (Creole; VOD); Manyok Blan (Creole; VOD); Manyok Dous (Creole; VOD); Medecinier Manioc (Haiti; AVP); Medsiyen Kamanyok (Creole; VOD); Mhogo (Sudan; AVP); Naiboa (Ma.; JFM); Naigoa (Ma.; JFM); Naskok (Ma.; JFM); O Foo a Moo Hoo See (Huitoto; SAR); Ohi (Mosetano; DLZ; EGG; RAR; SOU); Pacyoomuwa (Bora; EGG); Poho (Culina; RAR); Quimeca (Inaparis; RAR; SOU); Quiscamote (Ma.; JFM); Rumu (Que.; DLZ; EGG; RAR; SOU); Sacharuma (Ma.; JFM); Sekachi (Matsigenka; EGG; RAR; SOU); Tabas (Chiquitano; DLZ); Ta'e (Tikuna; SAR); Taioca (Bol.; DLZ); Tapioca (Eng.; CR2; VOD); Tapioca Plant (Eng.; USN); Tentu (Ma.; JFM); Timeca (Chontaquiro; EGG; RAR; SOU); Tsin (Bel.; Ma.; BNA; JFM); Vazino (Candoshi; EGG; SOU); White Cassava (Bel.; BNA); Yawiri (Cocama; EGG; SOU); Ytuxe (Ticuna; EGG; SOU); Yuca (Car.; Cr.; Cuba; Dor.; Peru; Sp.; LOR; MDD; TRA; USN; VOD); Yuca Agria (Col.; AVP); Yuca Algodonera (Ma.; JFM); Yuca Amarga (Col.; Cr.; Ma.; Ven.; AVP; JFM); Yuca Amarillo (Peru; EGG); Yucabia (Sp.; AVP); Yuca Blanca (Peru; EGG); Yuca Brava (Col.; SAR); Yuca Dulce (Col.; Ma.; JFM; SAR); Zoete Cassave (Sur.; AVP).

### Activities:

Analgesic (1; TRA); Antiedemic (f; DLZ); Antiinflammatory (f; DLZ; TRA); Antiseptic (f; CRC); Antispasmodic (f; AHL); Antitumor (1; TRA); Antiviral (1; TRA); Aperient (f; CRC); Astringent (f; DLZ); Bactericide (1; TRA); Cyanogenic (1; CRC); Demulcent (f; CRC); Diuretic (f; CRC); Febrifuge (f; EGG); Hemostat (f; DAV; GMJ); Larvicide (1; X10363843); Mosquitocide (1; X10363843); Piscicide (f1; CRC; EGG; RAR); Poison (1; CRC); Sedative (f; JFM).

### Indications:

Abscesses (f; CRC; DLZ); Angina (f; CRC; JFM); Arthrosis (f; IED); Ascariasis (f; CRC); Ascites (f; CRC); Asthenia (f; VOD); Bacteria (1; TRA); Bites (f; CRC); Bleeding (f; DAV; GMJ); Boils (f; CRC); Burns (f; EGG); Cancer (f1; CRC; JLH; TRA); Chills (f; DAV); Condyloma (f; CRC); Conjunctivitis (f; CRC; EGG; IED); Cytomegalovirus (1; TRA); Dermatitis (f; DAV; GMJ; VOD); Diarrhea (f; CRC; DAV; EGG; SAR); Dysentery (f; CRC; DLZ); Eczema (f; CRC); Edema (f; DLZ); Erysipelas (f; CRC); Fever (f; DAV; EGG; IED); Flu (f; CRC; JFM); Fungus (1; TRA); Gout (f; DLZ); Headache (f; TRA; VOD); Hepatosis (f; CRC; JFM); Hernia (f; CRC); Infection (f1; CRC; TRA; VOD); Infertility (f; DAV; GMJ); Inflammation (f; CRC; DLZ; EGG; VOD); Insomnia (f; JFM); Itch (f; EGG; VOD); Marasmus (f; CRC); Mastosis (f; JFM); Measles (f; EGG); Mycosis (1; TRA); Myosis (f; DAV; GMJ); Neuralgia (f; CRC); Ophthalmia (f; CRC); Orchosis (f; CRC); Pain (f1; CRC; IED; TRA); Parasites (f; EGG); Prostatitis (f; CRC); Rheumatism (f; CRC; DLZ); Scabies (f; CRC; DAV; SAR); Snake Bite (f; CRC; JFM); Sores (f; CRC); Spasms (f; AHL; CRC); *Staphylococcus*

(1; TRA); Swelling (f; DLZ); Sycosis (f; CRC); Toothache (f; CRC); Tumors (f1; CRC; JLH; TRA); Viruses (1; TRA); Whitlow (f; CRC).

**Dosages:**

FNFF = !!! The roots, hopefully devoid of cyanide, are widely eaten, and leaves make a pot-herb, more vitamin rich than the roots.

- Argentinians apply the starch, in hot milk, to inflamed breasts of nursing mothers (JFM).
- Bolivians suggest a well-salted leaf decoction in baths for gout and rheumatism (DLZ).
- Haitians bathe cutaneous infections, headache, and itch with leaf preparations (VOD).
- Hispaniolans consider the fresh root juice antispasmodic (AHL).
- Latinos place fresh leaves in pillows as sedative (JFM).
- Latinos drink root tincture in rum, or apply topically to toothache (JFM).
- Peruvians suggest leaf preparations for inflammation, measles, and pox (EGG).
- Peruvians suggest 1 drop of latex (or potlikker) in the eye for conjunctivitis (EGG).
- Peruvians suggest the starch topically for itch (EGG), and in alcohol for fever (EGG).
- Trinidadans use leaf decoction in baths for flu patients (JFM).
- Venezuelans apply root to abscesses, boils, eczema, erysipelas, and whitlow (JFM).
- Venezuelans dissolve powdered root in sweetened water for angina and diarrhea (JFM).

**Downsides:**

Not covered (AHP; KOM; PHR). 36 drops bitter cassava juice killed a man in 6 convulsive minutes (IED). As of July 2007, the FDA Poisonous Plant Database listed 225 titles alluding to toxicity of this species.

**SAPODILLA (*Manilkara zapota* (L.) P. Royen) ++**

**SAPOTACEAE**



**Illustrations:**

fig 148 (DAV); fig 193 (IED); p 447 (L&W)

**Synonyms:**

*Achradelpha mammosa* O. F. Cook; *Achras mammosa* L.; *A. sapota* L.; *A. zapota* L. (basionym); *A. zapota* var. *zapotilla* Jacq.; *A. zapotilla* (Jacq.) Nutt.; *Calocarpum mammo-*

*sum* Pierre; *Lucuma mammosa* C. F. Gaertn.; *Manilkara achras* (Mill.) Fosberg; *M. zapotilla* (Jacq.) Gilly; *Sapota achras* Mill.; *S. zapotilla* (Jacq.) Coville; fide (USN).

### Notes:

Among the Aztecs and Maya, the main primitive use for this plant was as a chewing gum. A similar species, *M. jaimiqui*, shares some common names and uses with this species (AUS).

### Common Names:

Acaná (Pr.; Taino; AUS); Acubá (Pr.; Taino; AUS); Breiapfelbaum (Ger.; USN); Bulletwood (Eng.; AVP); Bully Tree (Ma.; JFM); Caimitillo Brasileiro (Peru; DAV); Chewing Gum Tree (Eng.; AVP); Chicle (Bel.; Eng.; Ocn.; Sp.; AH2; L&W; USN); Chicle Macho (Bel.; AVP); Chicle Zapote (Sp.; RAR); Chico Sapote (Eng.; Mex.; Sp.; L&W; USN); Chicozapote (Sp.; JFM; RAR); Chictzapotl (Nahuatl; AUS); Common Sapota (Eng.; AVP); Dilly (Bah.; Eng.; Fla.; AUS; AVP; JFM); Guenda-Xinya (Ma.; JFM); Hácana (Pr.; Taino; AUS); Hisperos (Sp.; AVP); Iban (Nic.; Ulwa; AVP; ULW); Isperhuala (Cuna; IED); Jácana (Pr.; Taino; AUS); Jen Hsin Kup (China; TAN); Kaugummibaum (Ger.; USN); Mamey (Ma.; Pr.; Sp.; AUS; JFM); Mamey Colorado (Cuba; Sp.; RyM); Mespel (Bel.; Vi.; AVP; L&W); Mespil (Ma.; JFM); Mesple (Ma.; JFM); Mespo (Ma.; JFM); Mespú (Ma.; JFM); Mispel (Dutch; AVP; JFM); Mispelboom (Dutch; Sur.; AVP; JFM); Mispoe (Dutch; AVP); Mispú (Dwi.; AVP; JFM); Muyozapot (Sal.; AVP; L&W); Naseberry (Eng.; Wi.; USN); Nisperillo (Dom.; AVP); Nisperillo de Hojas Finas (Dor.; AUS); Nispero (Sp.; RAR; USN); Nispero de Montaña (Col.; AVP); Nispero de Monte (Col.; AVP); Nispero Quitense (Ecu.; AVP); Palo Maria (Ma.; JFM); Peruetano (Ma.; JFM); Sabakan (Ulwa; ULW); Sabojira (Japan; USN); Sagadú (Garifuna; IED); Sapatija (Sur.; L&W); Sapatu (Nepal; NPM); Sapodilla (Eng.; Fla.; Scn.; Sp.; AH2; AUS; USN); Sapodilla Plum (Eng.; NPM); Sapodillbaum (Ger.; USN); Sapota (It.; AVP); Sapote (Cuba; Eng.; Ger.; Sp.; AVP; USN); Sapoti (Por.; AVP); Sapotier (Fr.; USN); Sapotiglia (It.; AVP); Sapotija (Dutch; AVP); Sapotilha (Brazil; Por.; AVP; L&W); Sapotilla (Peru; Sp.; DAV; RAR); Sapotille (Dwi.; Haiti; AVP); Sapotillier (Dutch; Fr.; Haiti; AVP; USN); Sapotillier Commun (Haiti; AVP); Sapotiy (Creole; Haiti; VOD); Sapotizeiro (Por.; AVP); Tzapotl (Aztec; AUS); Xicozapotl (Nahuatl; AUS); Ya (Ma.; JFM); Zapote (Sp.; TAN; USN); Zapote Blanco (Bel.; AVP); Zapote Chico (Mex.; L&W); Zapote Colorado (Bel.; L&W); Zapote de Abejas (Ma.; JFM); Zapote Morado (Bel.; L&W); Zapotillo (Cr.; Sp.; RAR; USN).

### Activities:

Analgesic (f; ULW); Anticancer, colon (1; JNP66:983; X12880319); Antioxidant (1; JNP66:983; X12880319); Antiradicular (1; JNP66:983); Aperitive (f; VOD); Astringent (f; DAW); Cyanogenic (f; JFM); Cytotoxic (1; JNP66:983; X12880319); Diuretic (f; DAW; VOD); Emetic (f; DAW); Emmenagogue (f; DAD); Febrifuge (f; DAW); Hypocholesterolemic (1; DAD); Lactagogue (f; VOD); Parasiticide (f; AUS; X10821961); Sedative (f; DAW); Tonic (f; DAW); Tuberculostatic (f; DAD).

### Indications:

Amenorrhea (f; DAD); Bladder Stones (f; DAD; JFM); Bleeding (f; VOD); Blisters (f; DAD); Cancer (f1; JLH; JNP66:983; X12880319); Cancer, colon (1; JNP66:983; X12880319); Caries (f; DAW); Childbirth (f; VOD); Colds (f; DAD); Corns (f; JLH); Coughs (f; DAD); Cystosis (f; DAD); Dermatitis (f; ULW); Diarrhea (f; DAD); Dysentery (f; DAW); Ectoparasite (f; X10821961); Enterosis (f; DAD); Fever (f; DAW; VOD); Flu (f; DAD); Headache (f; VOD); Hepatomegaly (f; DAW); Hepatitis (f; DAD; JFM); High Cholesterol (1; DAD); Inflammation (f; DAW); Insomnia (f; DAW); Kidney Stones (f; DAD); Leukorrhea (f; DAD); Nephrosis (f; DAD); Neuralgia (f; VOD); Oliguria (f; DAD); Pain (f; ULW); Parasites (f; AUS; X10821961); Puerperium (f; VOD); Pulmonosis (f; DAD); Rabies (f; DAD); Snake Bite (f; DAD); Sores (f; VOD); Stings (f; DAD); Stones (f; DAD); Swelling (f; DAD); Tuberculosis (f; DAD); Warts (f; DAD; JLH); Wounds (f; VOD).

**Dosages:**

FNFF = !! Fruits eaten out of hand, or in custards, jams, jellies, sherbets, syrups, vinegars, etc. Leafy shoots eaten raw or steamed; latex used for chewing gum (FAC; NPM). For HBP 5–6 leaves decocted with 4 leaves *Sechium edule* in 300 cc sweetened water (JFM). Gummy sap inserted into carious teeth (JFM). 6 crushed seeds in sugar water as diuretic (JFM). Mashed seeds used to treat rabies (JFM).

- Brazilians take the bark decoction for fever (JFM).
- Caicos Islanders boil young fruits, with or without guava, to curb diarrhea (JFM).
- Colombians take crushed seed to expel kidney and liver stones (JFM).
- Curaçaoans take bark decoction for leukorrhea (JFM).
- Haitians apply leaf with grease or tallow to neuralgia (VOD).
- Haitians in the Marbial Valley use bark tea for hemorrhage in fetal development (VOD).
- Haitians take a daily leaf tea for fever, hemorrhage, ulcers, and wounds (VOD).
- Haitians take leaf infusion, or crushed seed, as sedative and soporific (VOD).
- Trinidad natives take old leaf decoction for cold, cough, diarrhea, fever, and flu (JFM).
- Venezuelans take the green fruit and flower infusion for lung ailments (JFM).
- Yucatanese take 2–3 tsp decoction of bark fragments in 180 cc sweetened water every 2–3 hrs as antidiarrhetic, febrifuge tonics (JFM).

**Downsides:**

Juice from young leaves or fruits contain a saponin that can cause mild dermatosis and diarrhea. More than 6 seeds can be toxic causing abdominal pain and nausea (JFM). As of July 2007, the FDA Poisonous Plant Database listed five titles alluding to toxicity of this species.

**Extracts:**

Methanol fruit extract contains at least ten antioxidant polyphenols: methyl 4-O-galloylchlorogenate, 4-O-galloylchlorogenic acid, methyl chlorogenate, dihydromyricetin, quercitrin, myricitrin, (+)-catechin, (–)-epicatechin, (+)-galocatechin, and gallic acid. Several compounds were also cytotoxic to human colon cancer cell lines (JNP66:983; X12880319).

**GARLIC-VINE (*Mansoa alliacea* (Lam.) A. H. Gentry) ++****BIGNONIACEAE****Illustrations:**

p 147 (MD2)

**Synonyms:**

*Adenocalymma alliaceum* (Lam.) Miers; *A. sagotii* Bureau & K. Schum.; *Bignonia alliacea* Lam. (basonym); *Pachyptera alliacea* (Lam.) A. H. Gentry; *Pseudocalymma alliaceum* (Lam.) Sandwith; *P. sagotii* (Bureau & K. Schum.) Sandwith; fide (USN).

**Notes:**

Sometimes used as adjuvant in ayahuasca potions (JAD). In Madre de Dios, they fumigate houses with leaf smoke to repel bats (MD2).

**Common Names:**

Aboeja-Mibia (RA2); Ah-Kah-Pota (RA2); Ajo Macho (Sp.; RA2); Ajosacha (Sp.; RA2); Ajo Sacho (Peru; Sp.; LOR; RA2; RAR); Ajos del Monte (Sp.; RA2); Amazonian Garlic Bush (Eng.; RA2); Ayotete (Boni; GMJ); Bejuco de Ajo (Sp.; RAI; USN); Be'ò Ho (Ese'èja; MD2; RA2); Be'ò Ja Pusanga (Ese'èja; MD2; RA2); Boens (Peru; Sp.; LOR; RA2); Cipo Alho (Port.; RA2); Cipop d'Alho (Por.; GMJ; RA2); False Garlic (Eng.; RA2); Garlic Rope (Eng.; RA2); Garlic Vine (Eng.; RA2; RAR); Gonofroe-Tite (RA2); Ilay Kamwi (Palikur; GMJ; RA2); Ka Ale (Wayãpi; GMJ; RA2); Knof-Looklian (RA2); Koenofrokoetite (RA2); Kwi-Po-Kan (RA2); Liane Ail (Creole; Guy.; GMJ; RA2); Nia Boens (Peru; Sp.; LOR; RA2); Nishi Boains (RA2); Posatalu (Piro; Yine; MD2; RA2); Sacho Ajo (Peru; RA2; RAR; SOU); Skanske Boains (Shipibo/Conibo; MD2); Sucho Ajo (Peru; RA2; RAR; SOU); Tingi-Tite (RA2); Vova (Amahuaca; RA2; RAR); Wild Garlic (Eng.; DAV); Woe-ipole (RA2). (Nscn).

**Activities:**

Analgesic (f1; DAV; RA2); Antiedemic (f; RA2); Antiinflammatory (f1; MD2; RA2); Antioxidant (1; RA2); Antiradicular (1; RA2); Antirheumatic (f1; MD2; RA2); Antispasmodic (f; DAV; RA2); Antitussive (1; RA2); Antiviral (1; RA2); Cyclooxygenase-Inhibitor (1; RA2); Cytotoxic (1; PC31:1061); Depurative (f; RA2); Emetic (f; RA2); Febrifuge (f; MD2); Fungicide (1; RA2); Hypocholesterolemic (1; X9135681); Insectifuge (f; RA2); Mosquitofuge (f; RA2); Prostaglandin-Synthesis-Inhibitor (1; RA2); Purgative (f; RA2); Tonic (f; RA2); Vermifuge (f; RA2).

**Indications:**

Arthritis (f1; MD2; RA2); Asthma (f; RA2); Cancer (1; RA2); Colds (f1; RA2); Constipation (f; RA2); Coughs (f1; RA2); Cramps (f; DAV; RA2); Debility (f; RA2); Dermatitis (f; RA2); Edema (f; RA2); Enterosis (f; RA2); Epilepsy (f; MD2; RA2); Fatigue (f; DAV; GMJ; RA2); Fever (f; DAV; MD2); Flu (f; DAV; RA2); Fungus (f1; RA2); Headache (f; RA2); Head Colds (f; RA2); High Cholesterol (1; RA2; X9135681); Infection (1; RA2); Infertility (f; RA2); Inflammation (f1; MD2; RA2); Lameness (f; RA2); Lumbago (f; RA2); Malaria (f; RA2); Myalgia (f; RA2); Mycosis (f1; RA2); Nervousness (f; DAV; RA2); Neurosis (f; DAV); Pain (f1; DAV; RA2); Pneumonia (f; RA2); Pregnancy (f; RA2); Pulmonosis (f; RA2); Respirosis (f1; RA2); Rheumatism (f1; DAV; MD2; RA2); Shock (f; DAV; RA2); Swelling (f; RA2); Uterosis (f; RA2); Viruses (1; RA2); Worms (f; RA2); Wounds (f; RA2).

**Dosages:**

FNFF = ! Leaves sometimes used as garlic-flavored spice (RA2). 1–2 g capsules 2×/day (RA2); 1 cup decoction 2×/day (RA2); 3–4 ml tincture 2×/day (RA2).

- Achuales use roots for rheumatism (DAV).
- Amuesha use leaf tea for fertility (RA2).
- Brazilian Tapajos put herb in baths for body aches and flu (RA2).
- Ese'èja Indians use leaf tea for colds (RA2).
- Colombians use for pulmonary complaints (RA2).
- Guyana Creoles use leaves in baths for cramps and fatigue (GMJ; RA2).
- Madre de Dios people bathe in leaf/bark decoction for cutipado, daño, and fiebre y susto (MD2).

- Madre de Dios people drink decoction for epilepsy (MD2).
- Madre de Dios people fumigate houses with leaf smoke to repel bats (MD2).
- Peruvians use as analgesic, antiarthritic, antiinflammatory, antirheumatic, antitussive, depurative, febrifuge, purgative, and tonic, for abdominal pain, aches, arthritis, asthma, colds, coughs, cramps, epilepsy, fatigue, fertility, fevers, flu, good luck, headaches, inflammation, insect repellent, malaria, nervous shock, nervousness, pneumonia, rheumatism, skin problems, and uterine disorders (RA2).
- Shipibo-Conibo poultice bark on bumps, swellings, and inflammation, using bark tea or leaf decoction for arthritis, colds, epilepsy, inflammation, rheumatism, and uterosis, and the root tincture as tonic (RA2).
- Surinamese use for colds, fever, rheumatic pains, and as a vermifuge and in pregnancy (RA2).
- Venezuelans consider the plant emetic (RA2).
- Wayãpi use leaves in bath for fever (GMJ; RA2).

#### Downsides:

None reported (RA2). As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

#### Extracts:

Dried flowers hypocholesterolemic when fed at 2% of diet in rats (but equivalent to garlic oil fed at 0.002%) (X9135681). Sharing many of the chemicals with garlic, but at presumably lower levels, this probably shares many of the bioactivities but also weaker (JAD).

## ARROWROOT (*Maranta arundinacea* L.) +++

### MARANTACEAE

#### Illustrations:

fig 150 (DAV)

#### Common Names:

Aararoot (Kon.; NAD); Agontigueppe (Ma.; JFM); Agutiguepe (Brazil; AVP; MPB); Alimento (Dor.; AHL); Alloyo (Creole; Haiti; VOD); Amaranta (Ma.; JFM); Amarata (Hon.; AVP); Amerikaanse Saleb (Dutch; EFS); Angkrik (Java; IHB); Ararout (Arab.; Sur.; Tur.; AVP); Araru (Dom.; AVP); Araru de Jardin (Dom.; AVP); Ararut (Ben.; Bom.; Guj.; Krio; Malaya; DEP; IHB; NAD; UPW); Araruta (Brazil; Peru; EGG; JFM; USN); Araruttuk-Kilangu (Tam.; WOI); Arawout (Creole; Haiti; VOD); Arourou (Haiti; AHL); Arroruz (Peru; EGG); Arrowroot (Eng.; Jam.; Trin.; AVP; CR2); Arrowroot de la Jamaïque (Fr.; EFS); Arus (Java; IHB); Bermuda Arrowroot (Eng.; EFS; VOD); Berolu (Malaya; IHB); Beruwi (Malaya; IHB); Bordoncillo (Ma.; JFM); Bribi (Ma.; JFM); Camotillo (Bel.; Ma.; BNA; JFM); Cannacoro (It.; EFS); Chaac (Ma.; JFM); Chaak (Ma.; JFM); Chogátara (Peru; EGG); Chuchute (Ma.; JFM); Chuchute Tamalera (Sp.; USN); Cuycuy (Sa.; EGG; RAR); Dictame (Creole; Guy.; GMJ); Envers Blanc (Creole; Guy.; GMJ); Fecola Estratta Dalla (It.; AVP); Gaerut (Java; IHB); Garut (Java; IHB); Guapo (Ma.; JFM); Guate (Ma.; Ven.; AVP; JFM); Herbe aux Flèches (Fr.; USN); Inchakuy (Que.; DLZ); Inchusi (Araona; DLZ); Indian Arrowroot (Wi.; AVP); Irut (Java; IHB); Jamachipeke (Ma.; JFM); Jelarut (Java; IHB); Jihopo (Peru; EGG); Kaa (Mal.; DEP); Kaakaneshasteh (Dec.; DEP); Kuamau (Tam.; NAD); Kughei (Mal. DEP); Kuva (Mal.; NAD; WOI); Kuva Mava (Tam.; DEP); Kuvamavu (Tam.; WOI); Kuvehittu (Kan.; NAD; WOI); Kuzi Ukon (Japan; TAN); Larut (Java; Sunda; IHB); Leren (Dom.; Sa.; RAR); Mao de Onca (Brazil; RAR); Maranta (Ma.; Por.; Pr.; AVP; JFM; UPW); Maranta a Feuilles de Balisier (Fr.; KAB); Maranta de l'Inde (Ma.; JFM); Marante (Fr.; UPW); Marantha (Col.;



AVP); Medawik China (Sumatra; IHB); Mouchasse Barbade (St. Lucia; AVP); Nnggarut (Java; IHB); Ono Meguen Mani (Shipibo/Conibo; EGG); Palagunda (Tel.; KAB); Palaguntha (Tel.; WOI); Patat Sagu (Sunda; IHB); Pen Bava (Burma; NAD); Pen Bwa (Burma; DEP); Pfeilwurz (Ger.; USN); Pfeilwurzel Taerke (Ger.; AVP); Pitisilen (Ma.; JFM); Plante a Flèches (Haiti; Mart.; AVP); Platanillo (Ma.; JFM); Pringjaepite (Sur.; AVP); Racine a Flèche (Haiti; Mart.; AVP); Rarut (Java; IHB); Saeta Raiz (Sp.; AVP); Sagu (Cr.; Ma.; AVP; JFM); Sagu Belanda (Malaya; IHB); Sagu del Monte (Ma.; JFM); Sagu Rarut (Sumatra; IHB); Shimipampana (Ma.; Peru; Sp.; EGG; JFM; LOR; MDD); Suco (Ma.; JFM); Sulu (Ma.; JFM); Tamalera (Ma.; JFM); Tavaksha (Kan.; DEP); Tavkil (Mah.; Mar.; DEP; NAD); Tikhur (India; AVP); Tikkor (Hindi; NAD); Ubi Garut (Malaya; IHB); Ubi Karut (Malaya; IHB); Vestindisk Salep (Den.; EFS); Vilonala (Hova; KAB); Vincent Arrowroot (Eng.; Ocn.; AH2); Viuxita (Ma.; JFM); Waerut (Java; IHB); West Indian Arrowroot (Eng.; Ocn.; AH2; NAD); West Indisch Arrow Root (Dutch; EFS); West Indische Pfeilwurzel (Ger.; EFS); West Indische Pijlwortel (Dutch; EFS); Wild Arrowroot (Bel.; BNA); Yuquilla (Cuba; Ma.; Peru; EGG; JFM; SOU); Yuquilla de Monte (Ma.; JFM); Yuquilla Silvestre (Ma.; JFM).

### Activities:

Alexiteric (f; CRC); Antibilious (1; PHR); Antidote (curare) (f; JFM; VOD); Antidote (hippomane) (f; IED; JFM; VOD); Antiscorbutic (1; VOD); Choleric (1; PH2); Collyrium (f; JFM); Demulcent (f1; CRC; NAD; PHR; PH2); Depurative (f; CRC; EB30:114); Digestive (f; EGG); Febrifuge (f; EGG); Hypocholesterolemic (1; PHR; PH2); Refrigerant (f; CRC); Rubefacient (f; CRC; WOI); Stomachic (f; VOD); Vulnerary (f; CRC; WOI).

### Indications:

Alcoholism (f; EGG); Asthenia (f; DAV; RAR); Bilioussness (1; PHR); Bronchosis (f; PH2); Cholecocystosis (f; DAV); Cholera (1; X2345922); Colitis (f; CRC); Convalescence (f; CRC); Coughs (f; PH2); Cystosis (f; CRC; EGG; JFM); Dermatitis (f; CRC; UPW); Diarrhea (f1; PHR; PH2; X2345922); Dysentery (f; CRC; EB30:114; PH2); Dyspepsia (f; DAV; JFM; PH2); Dysuria (f; FEL); Enterosis (f; PHR; PH2; WOI); Erysipelas (f; CRC; EB30:114; JFM); Fever (f; CRC; DAV; EGG; FEL; RAR); Gangrene (f; CRC; JFM); Gastrosis (f; GMJ; PHR; PH2); High Cholesterol (1; PHR; PH2); Hoarseness (f; CRC); Hyperacidity (f; EGG); Ophthalmia (f; JFM); Pain (f; AHL); Pulmonosis (f; FEL); Snake Bite (f; MPB); Snoring (f; AHL); Sores (f; CRC; WOI); Sore Throat (f; AHL; CRC); Sprains (f; DAV; EGG); Stings (f; CRC; JFM); Stress (f; EGG); Sunburn (f; CRC; EB30:114; JFM); Tumors (f; JLH); Urethrosis (f; CRC; DAV; EGG; JFM); Wounds (f; CRC; WOI).

### Dosages:

FNFF = !!! Young rhizomes widely consumed, boiled or roasted; older rhizomes more often converted into starch (FAC; JFM; TAN). 2–3 drachms boiled in a pint milk or water (FEL); 15 g starch dissolved in 250 cc sweet water for dysentery (JFM).

- Antillean Indians apply the starch to allergy (Hippomane), gangrene, and stings (JFM).
- Brazilians use the acrid juice of the rhizome against snake bite (MPB).
- Dominicans suggest boiled leaves in gargle for sore throat and snoring (AHL).
- Peruvians take the juice or tea of the root for acid stomach, alcoholism, cystosis, diarrhea, dyspepsia, evil character, fever, sprains, stress, and urethrosis (EGG).
- Trinidadians apply the starch to erysipelas and sunburn (JFM).
- Yucatanese eat raw rhizomes for bladder and urethral ailments (JFM).
- Yucatanese suggest several draughts a day of starch solution (15 g /250 cc sweet water), plus a starch solution enema (1 tbsp/150 cc water) 2–3×/day for dysentery (JFM).
- Yucatanese take decoction (2–3 rhizomes/80 cc sweetened water) 2 tbsp every 2 hr as diuretic (JFM).
- Yucatanese use juice of raw rhizome as collyrium to clear the vision (JFM).

**Downsides:**

Class 1 (AHP). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). But they designate no dosage! (JAD). Canadian law disallows as non-medicinal ingredient for oral products (AHP). As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.

**Extracts:**

Cooled arrowroot solution perhaps as good as the WHO rehydration therapy for cholera-induced dysentery (X2345922).

**CONDURANGO (*Marsdenia cundurango* Rchb. f.) +  
ASCLEPIADACEAE**

**Illustrations:**

p 782 (HH2)

**Synonyms:**

*Gonolobus cundurango* Triana; *Marsdenia reichenbachii* Triana; *Pseudomarsdenia reichenbachii* (Rchb. f.) Schlct.; fide (BEJ; EGG; HH2; MPG; USN).

**Notes:**

The specific epithet, appropriately spelled *cundurango*, is often spelled condurango, like the common name, which is spelled condorango in Ecuador, condurango elsewhere.

**Common Names:**

Bejuco del Cóndor (Ecu.; MPG); Bejuco de Sapo (Ecu.; MPG); Common Condorvine (Eng.; USN); Condor Plant (Eng.; CR2; USN); Condor Vine (Eng.; Ocn.; AH2); Condurango (Ecu.; Eng.; Fr.; Peru; Scn.; Sp.; AH2; EFS; MPG; USN); Condurango Blanco (Sp.; HH2); Condurangostruik (Dutch; EFS); Eagle Vine (Eng.; CR2; USN); Geierpflanze (Ger.; HH2); Kondorliane (Ger.; HH2); Kondurango (Tur.; EFS); Kondurangostrauch (Ger.; EFS); Lechero (Sp.; EFS); Tucacsillu (Peru; EGG; SOU).

**Activities:**

Alterative (f; CRC; EFS; PNC); Analgesic (f; CRC; EGG); Antiemetic (f; PH2); Antiophidic (f; EGG); Antisarcotic (1; HH2); Antiseptic (f; CRC); Antitumor (1; HH2; PHR; PNC); Bitter (1; PH2); Carminative (f; EGG); Cholagogue (f; EGG); Cicatrizant (f; MPG); CNS-Sedative (1; MPG); Convulsant (f; CRC); Diuretic (f; CRC); Eupeptic (f; MPG); Gastrotonic (2; HH2; KOM; PH2); Hemostat (f; CRC; EGG; MPG); Nervine (f; CRC; EFS); Orexigenic (1; PH2; PNC); Paralytic (1; CRC); Phagocytotic (1; X8004709); Sedative (1; MPG); Sialagogue (2; HH2; KOM; PH2); Stomachic (f1; CRC; EFS; PNC); Tonic (f; CRC; EGG); Vulnerary (f; MPG).

**Indications:**

Adenopathy (f; CRC); Anemia (f; EGG; SOU); Anorexia (2; CRC; KOM; PHR; PH2); Atonia (f; PH2); Beri-Beri (f; CRC); Bites (f; CRC); Bleeding (f; CRC; EGG; MPG); Cancer (f1; CRC; HH2; MPG; PHR; PNC); Cancer, breast (1; FNF; JLH); Cancer, epithelium (1; FNF; JLH); Cancer, esophagus (1; FNF; JLH); Cancer, face (1; FNF; JLH); Cancer, lip (1; FNF; JLH); Cancer, neck (1; FNF; JLH); Cancer, pylorus (1; FNF; JLH); Cancer, skin (1; FNF; JLH); Cancer, stomach (1; FNF; JLH; PH2); Cancer, uterus (1; FNF; JLH); Carcinoma (1; CRC); Catarrh (f; HHB); Dermatitis (f; PH2); Duodenosis (f; MPG); Dyspepsia (f2; MPG; PHR); Epithelioma (f; JLH); Gas (f; EGG); Gastrosis (f; CRC; MPG; PH2); Infection (f; CRC); Insomnia (1; MPG); Lymph (f; CRC); Nausea (f; PH2); Neoplasm (f;

MPG); Nephrosis (f; BEJ); Pain (f; CRC; EGG); Proctosis (f; PH2); Rheumatism (f; CRC); Sarcoma (1; CRC; HH2); Snake Bite (f; CRC; EGG); Sores (f; MPG); Stomachache (f; EGG; HHB; RAR); Stomatosis (f; PH2); Syphilis (f; CRC); Ulcers (f; HHB; MPG); VD (f; CRC); Wounds (f; MPG).

#### Dosages:

FNFF = ! Tender young pods peeled and eaten as vegetable (MPG). Average daily dose bark 2–4 g (HH2; PHR); 1.5 g bark/cup tea (HHB); 10 g powdered dry bark/l boiling water, 3–5 min; 1–4 g powdered bark (PNC); 3–4 tbsp/day (MPG); 0.5–4 ml tincture (HHB); 2–5 g tincture; 0.2–0.5 g aqueous extract (?); 2–4 g liquid extract (PHR); 2–4 ml liquid extract (PNC); 1 cup wine 30 min before meals (50–100 g/l wine) (PH2).

- Ecuadorians take the stem bark tincture for kidney problems (BEJ).
- Ecuadorians use decoction (10 g powdered bark/l water, boil 3–5 min) for bleeding, duodenal and gastric ulcers, dyspepsia, and as a vulnerary in cancer, sores, and wounds (MPG).
- Peruvians take root decoction as analgesic, cholagogue, hemostat, and tonic, for chronic anemia, dyspepsia, and stomachache, and take the tea for cancer (EGG).
- Peruvians take “vino de condurango” or tincture (20 g seeds/100 cc 60% ethanol) as carminative (EGG).

#### Downsides:

Not covered (AHP). “Health risks or side effects following the proper administration of designated therapeutic dosages are not recorded” (PH2). No side effects reported during therapeutic use (AEH; PHR). But high doses in lab animals produce ataxia, CNS-depression, perhaps even paralytic death (MPG). As of July 2007, the FDA Poisonous Plant Database listed five titles alluding to toxicity of this species.

#### Extracts:

The antineoplastic effects have not been proven (MPG). Condurangin: astringent, convulsant, paralytic, and sialagogue; LD = 40–45 orl cat & dog, LD = 300 ipr mus, LD = 20 ivn cat & dog, LD = 30 scu cat & dog (FNF).

### GAPUI (*Martinella obovata* (Kunth) Bureau & K. Schum.) +

#### BIGNONIACEAE

#### Illustrations:

fig 151 (DAV); p 106 (SAR)

#### Notes:

Finding no English common name for this I decided to use “gapui,” which is reported from both Colombia and Brazil, rather than “yuquillo,” the name in Peru.

Juices sometimes used to fix tattoos (MD2).

#### Common Names:

Atsan Tita (Shipibo/Conibo; MD2); Atsan Titabero Rao (Shipibo/Conibo; EGG); Atsa Yuka (Amahuaca; MD2); Gapui (Brazil; Col.; MPB; RAR; SAR; USN); Gapui Cipo (Brazil; MPB; RAR); Yokíri (Amarakaeri; MD2); Yokiya (Piro; Yine; MD2); Yuquilla (Sp.; DAV; MD2); Yuquillo (Peru; Sp.; LOR; MDD).

#### Activities:

Antiinflammatory (f; SAR); Antiseptic (f; DAV); Collyrium (f; DAV); Curare (1; DAV; SAR); Febrifuge (f; DAV; SAR); Poison (f; DAV); Vermifuge (f; DAV); Vulnerary (f; DAV).

**Indications:**

Conjunctivitis (f; MD2; MPB; RAR; SAR); Fever (f; DAV; SAR); Infection (f; DAV; SAR); Inflammation (f; DAV; SAR); Ophthalmia (f; MD2; MPB; RAR; SAR); Sores (f; DAV; EGG; MPB); Syphilis (f; MPB); VD (f; MPB); Worms (f; DAV); Wounds (f; DAV; EGG).

**Dosages:**

FNFF = ! Tubers reportedly edible when cooked (MD2). Flocculence may help render water potable (DAV).

- Barasana Indians use bark with that of *Distictella racemosa* and leaves of *Spongiosperma macrophyllum* in making dart poison (DAV).
- Brazilians steep roots in water as collyrium for conjunctivitis (MPB).
- Brazilians use in baths for syphilitic lesions (MPB).
- Candoshi use root sap for eye infections (DAV; SAR).
- Madre de Dios natives apply 1 or 2 drops tuber juice to conjunctivitis (MD2).
- Peruvians use the root juice to clean chronic sores or wounds (EGG).
- Vaupes natives use fruits for conjunctivitis (DAV; SAR).

**Downsides:**

Some authors warn that the plant is poisonous (DAV). As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

Alkaloids reported (SAR).

## MORICHE PALM (*Mauritia flexuosa* L. f.) +++

### ARECACEAE


**Illustrations:**

fig 152 (DAV); p 44 (MPB)

**Synonyms:**

*Mauritia flexuosa* L. f. var. *venezuela* Steyermark; *M. minor* Burret; *M. setigera* Griseb. & H. Wendl.; *M. sphaerocarpa* Burret; *M. vinifera* Mart.; fide (POR; USN).

**Notes:**

I was pleased to see the nutritional data reproduced from Villachica (1996) in Egg (1999), though discrepancies are obvious. For example, the humidity content of the fresh fruit is reported at 53–71% while the humidity of the dry fruits is reported at 72.8%. Obviously this can't be right. So all the nutritional data must be viewed with suspicion. Egg (1999) reports that there are some 3 million hectares of aguaje swamps in Peru, from Baja Amazonas up to nearly 900 meters above sea level. The town of Iquitos is said to consume between 12 and 20 tons of fruits per month. Humboldt called it the "Tree of Life." Egg (1999), Rutter (1990), and Soukup (1970) also recite many common names, and many ethnobotanical uses, but NO specific medicinal uses (EGG; RAR; SOU).

I coined the word "suriculture" ca. 1992 for the cultivation of what Peruvians call "suri," grubs or larvae of the palm beetle (*Rhynchophorus palmarum*). I suggested that using the 95%+ of palm-heart palm (that is wasted) to produce edible protein (entomophagous delicacy) could give a "green" seal of approval to the palm heart industry. Some entrepreneurs say that the palm-heart industry is sustainable for centuries. Many botanists disagree. Too often, more than 95% of the palm is wasted when a palm heart is harvested destructively. The Yanomamo Indians fell trees deliberately to provide fodder for the larvae. When they cut the tree, they eat the palm heart. One large palm can yield up to 50 pounds palm heart. A palm trunk can yield

three or four pounds of grubs. There are descriptions of excellent “palm butter” made by melting and clarifying the fat of the larvae. And my summary of the smoked and dried larvae data in the *Food Composition Table for Use in Africa* (#1099 & #1097) suggests that 100 g of larvae could supply twice the RDA for thiamin, 1.5 times the RDA for zinc, 1.3 times the RDA for riboflavin, about 70% of copper and iron requirements, 40% of niacin, 30% of phosphorus, ca. 20% of protein and calcium, but less than 10% of daily requirements of magnesium. Insect fatty acids, in general, are highly unsaturated. We need more precise analytical data, not only on palm beetle larvae, but also on palm hearts, and other palm products. We could surely devise a nutritionally complete package based solely on renewable palm products, a TV dinner or Palm Sunday brunch, if we include the “suri.” We think that the MUFAs, tocotrienols, and beta-carotene make palm oils more attractive as health-food items than the North American press would have us believe. Oil palm is the best reported source of tocotrienols which some scientists regard as better than tocopherol in vitamin E antioxidant activity. I propose an “Amazonian Antioxidant” salad dressing embracing wholesome Amazonian palm oils (best sources of tocotrienols and MUFA's and good source of beta-carotene), brazilnut (best source of selenium), camu-camu (best source of vitamin C), chile (best source of capsaicin), and puree of beans (good source of genistein). Try renewable palm hearts, drenched in antioxidant salad dressing, with a few smoked “suri,” hopefully contributing to your longevity and that of the rainforest (DAV)!

#### Common Names:

Áchu (Aguaruna; Peru; EGG; SOU); Achua (Peru; EGG; SOU); Achual (Peru; EGG; RAR; SOU); Aeta (Peru; RAR); Aguachi (Peru; EGG); Aguaje (Peru; DAV; SAR); Aguashi (Peru; EGG); Ahuaque (Peru; EGG); Ahuashi (Peru; EGG; RAR); Banin (Cashibo; Peru; EGG; SOU); Binón (Pano; Peru; Shipibo/Conibo; EGG; RAR); Binun (Cashibo; Peru; EGG; RAR); Bority (Brazil; PIO); Buriti (Brazil; Col.; MPB; PIO; SAR); Buriti do Brejo (Sp.; POR); Buritisol (Brazil; Peru; EGG; RAR); Buritizeiro (Sp.; POR); Burity (Peru; RAR); Burity de Brejo (Brazil; RAR); Cananguacha (Peru; EGG); Cananguacho (Peru; EGG); Cananguche (Col.; Peru; EGG; POR; SAR); Carandaguaçu (Brazil; POR); Carandá Guassú (Bol.; Brazil; Chiriguano; DLZ; PIO); Carandáhy Guassú (Bol.; Brazil; Guarayu; DLZ; PIO; POR); Carandaiguaçu (Brazil; POR); Chag (Maku; SAR); Chomiya (Col.; POR); Chunuyo (Bora; SAR); Coqueiro-Buriti (Sp.; POR); Coqueiro Burity (Brazil; PIO); Gui-nê-na (Huitoto; SAR); Gui-nê-na-kö'-nê-kö (Huitoto; SAR); Ite (Peru; RAR); Ite Palm (Guy.; USN); Kinema (Huitoto; Peru; EGG); Mariti (Peru; EGG); Marity (Peru; SOU); Maro (Culina; Peru; EGG; RAR); Mauricie (Fr.; POR); Mauricier (Fr.; POR); Mauritia-Palme (Ger.; POR); Miriti (Brazil; Col.; Peru; EGG; MPB; SAR); Morete (Peru; Que.; RAR); Morete Palm (Eng.; USN); Moriche (Col.; Peru; Ven.; DAV; POR); Morichepalme (Ger.; USN); Mority (Brazil; PIO); Moritz-Palme (Ger.; POR); Muriti (Peru; EGG); Muritizeiro (Sp.; POR); Murity (Brazil; PIO); Nê (Barasana; SAR); Palma Ita (It.; POR); Palma Miriti (It.; POR); Palma Real (Sp.; PIO); Palmeira-dos-Brejos (Por.; POR); Palmier Bâche (Fr. Guiana; POR); Rren (Makuna; SAR); Tree of Life (Eng.; USN); Vinon (Amahuaca; Peru; Shipibo; EGG; RAR); Wachori (Candoshi; Peru; EGG); Xonuuña (Ocaina; Peru; EGG); Yurumabrot (Ger.; USN). (Nscn).

#### Activities:

Emollient (f; MPB); Tonic (f; MPB; SAR).

#### Indications:

Colds (f; SAR); Debility (f; SAR); Flu (f; SAR); Ophthalmia (1; X2718919); Senility (f; SAR); Xerophthalmia (12; X2718919).

#### Dosages:

FNFF = !! Like many palms this yields many edible products. Fruits consumed widely in Amazonia; juice from inflorescence (with 92.7% sucrose, 2.3% reducing sugars) tapped and

consumed or converted to sugar or wine. Palm cabbage also edible. Starch made from trunks, also fallen trunks, yield the edible palm grub called the “suri” (*Rhynchophorus palmarum*). I have eaten suri. Raw they are a challenge but I have eaten dozens so, cooked they are a great treat, better than fried oysters (DAV; DLZ; EGG).

- Brazilians add leaves to bath water as emollient (MPB).
- Brazilians consider the juice from young stems tonic (MPB).
- Colombians make a “chicha” from the fruits deemed useful for strengthening the weak because of old age; also considered efficacious in severe colds and influenza (SAR).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**Extracts:**

It is stated that the oily fraction has 10 times more beta-carotene than red-palm oil, deemed one of the better sources of beta-carotene. Daily supplementation with an amount corresponding to 134 µg retinol equivalent over 20 d showed that this food can reverse clinical xerophthalmia and restore liver reserves of the vitamin (X2718919).

**MAYTEN (*Maytenus boaria* Molina) +  
CELASTRACEAE**

**Illustrations:**

fig 158c (ARG); fig 60 (MPG)

**Synonyms:**

*Boaria molinae* DC.; *Celastrus boaria* (Mol.) Baill.; *C. maytenus* Willd.; *C. uncinatus* Ruiz & Pavon.; *Maytenus chilensis* DC.; *M. crenulatus* Presl; *M. pendulina* Steudel; *Senecia maytenus* Lamarck.; fide (HH2; MPG; USN).

**Common Names:**

Boaria (Brazil; MPB); Chuchuhuasca (Peru; EGG); Chuchuhuasi (Peru; EGG); Horco Molle (Arg.; ARG); Horco Mollo (Chile; HH2); Magtun (Chile; MPG); Maitén (Arg.; Chile; ARG; MPG); Mayten (Chile; USN); Mayten Tree (Eng.; FAC). (Nscn).

**Activities:**

Analgesic (f; MPG); Antiacetylcholinesterase (1; X11531097); Anticancer (1; EGG); Anticarcinomic (1; EGG); Antidote (f; MPG); Antileukemic (1; MPG); Antiseptic (f1; MPG); Antitumor (1; MPG); Cytotoxic (1; MPG); Febrifuge (f; EGG; MPG); Insecticide (1; X11531097); Purgative (f; MPB; MPG).

**Indications:**

Cancer (1; EGG; MPG); Cancer, skin (1; EGG; MPG); Constipation (f; MPG); Dermatitis (f; MPG); Eruptions (f; MPG); Fever (f; EGG; MPB; MPG); Infection (f1; MPG); Leukemia (1; MPG); Malaria (f; MPB); Pain (f; MPG); Sores (f; MPB); Wounds (f; MPB).

**Dosages:**

FNFF = ! Seeds yield a cooking oil (FAC). Cattle appreciate the foliage (ARG).

- Brazilians suggest leaf decoction internally as antimalarial and febrifuge, externally to wash sores and wounds (MPB).
- Chilean Mapuches use as antidote and purgative, applying warmed leaves to painful areas (MPG).

- Chileans use leaf infusion (to 4 cups/day, 1 tsp dry leaf/cup water) as febrifuge (MPG).
- Chileans use the leaf decoction (4 tsp/1 water, boiled 10 min) to wash cutaneous eruptions (MPG).
- Peruvians suggest the seeds as purgative (EGG).

#### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

## HOLY THORN (*Maytenus ilicifolia* Mart. ex Reissek) + CELASTRACEAE

#### Illustrations:

p 117 (MPB)

#### Common Names:

Cancerosa (Brazil; Par.; MPB; MPG); Cangorosa (Arg.; Par.; Sp.; ARG; MPG); Congo-rosa (Sp.; Uru.; CR2; MPG; USN); Erva Cancerosa (Brazil; MPB); Espinheira de Deus (Brazil; MPB); Espinheira Santa (Brazil; Por.; AH2; MPB; USN); Hierba Cancerosa (Brazil; MPG); Holy Thorn (Eng.; Scn.; AH2; USN); Limaosinho (Brazil; RAI); Maiteno (Brazil; RAI); Salvavidas (Brazil; MPB); Sombro de Toro (Brazil; MPG); Sombro de Touro (Brazil; MPB; MPG).

#### Activities:

Abortifacient (f1; MPG; RAI); Adrenergic (f; RAI); Analgesic (f; MPG; RAI); Antiasthmatic (f; MPG); Antifertility (f; RAI); Antiimplantation (1; MPG; RAI); Antileukemic (1; MPG; RAI); Antisarcotic (1; HH2); Antiseptic (1; HH2; MPB; MPG; PH2; RAI); Antispasmodic (f; MPG); Antitumor (f1; MPB; PH2; RAI); Antiulcer (1; HH2; MPB; MPG; PH2); Aphrodisiac (f; RAI); Bactericide (1; HH2); Candicide (1; HH2); Cicatrizant (f; MPG); Contraceptive (f; RAI); Cytotoxic (1; MPG; PH2; RAI); Depurative (f; MPB); Detoxicant (f; RAI); Diuretic (f1; MPG); Embryotoxic (1; HH2); Emmenagogue (f; MPG; RAI); Estrogenic (1; RAI); Fungicide (1; HH2); Gastrogogue (1; MPG); Laxative (f; RAI); Nephrotonic (f; RAI); NO-Genic (1; X16243464); Sialagogue (f; MPG; RAI); Teratogenic (1; HH2); Tonic (f; MPB); Vasorelaxant (1; X16243464); Vulnerary (f; RAI).

#### Indications:

Acne (f; HH2); Alcoholism (f; PH2); Anemia (f; PH2; RAI); Asthma (f; MPG; PH2; RAI); Bacteria (1; HH2); Cancer (f1; HHB; JLH; MPB; PH2; RAI); Cancer, breast (1; HH2); Cancer, head (1; HH2); Cancer, ovary (1; HH2; RAI); Cancer, skin (1; HHB; JLH; PH2); Cancer, throat (1; HH2); *Candida* (1; HH2); Colic (f; RAI); Constipation (f; RAI); Dermatitis (f1; HHB; JLH; PH2; RAI); Diarrhea (f; RAI); Duodenosis (f; HH2); Dysmenorrhea (f; RAI); Dyspepsia (f; PH2; RAI); Eczema (f; HH2; PH2); Enterosis (f; PH2); *Escherichia* (1; HH2); Exhaustion (f; PH2); Fever (f; MPB); Fungus (1; HH2); Gas (f; PH2); Gastrosis (f; HH2; MPB; PH2); Hepatosis (f; RAI); Hodgkin's (1; HH2); Hyperacidity (f; MPB; PH2); Impotence (f; RAI); Infection (1; HH2; MPB; MPG; PH2; RAI); Inflammation (f; PH2); Leukemia (1; FNF; HH2; MPG; RAI); Lymphoma (1; HH2; RAI); Melanoma (1; FNF; HH2); Mycosis (1; HH2); Oliguria (f; RAI); Ophthalmia (f; PH2); Pain (f; MPG; PH2; RAI); Rashes (f; RAI); Respirosis (f; RAI); Rheumatism (f; RAI); *Salmonella* (1; HH2); Sarcoma (1; HH2); *Shigella* (1; HH2); Sores (f; HH2; MPB; PH2); Spasms (f; MPG; RAI); *Staphylococcus* (1; HH2); *Streptococcus* (1; HH2); Swelling (f; PH2); Ulcers (f1; HH2; MPB; MPG; PH2); UTIs (f; RAI); Wounds (f; MPB; RAI); Yeast (1; HH2).

**Dosages:**

FNFF = ? Not food pharmacy. 5–20 g powdered leaf (PH2); 1 (2–3 g) dry leaf capsule/tablet 2×/day (RAI); 1 cup leaf decoction 2–3×/day (RAI); 100–400 ml decoction/tea (2–5%) (HH2; PH2); 25–100 ml tincture (PH2).

- Argentinians take for asthma, cancer, diarrhea, dysmenorrhea, infections, respirosis, UTIs, and wounds (RAI).
- Brazilians take for acid stomach, asthma, bile disorders, cancer, cholecystitis, dyspepsia, enterosis, fever, gastrositis, impotence, inflammation, pain, sores, ulcers, and wounds (MPB; MPG; RAI).
- Paraguayans use for birth control, dysmenorrhea, and libido (MPG; RAI).
- Uruguayans use as antiasthmatic, antiseptic, antispasmodic, astringent, antinociceptive, emmenagogue, and vulnerary (MPG).

**Downsides:**

“Health risks or side effects following the proper administration of designated therapeutic dosages are not recorded” (PH2). Maytansines embryotoxic and teratogenic; not for use during pregnancy. As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**Extracts:**

Simple hot water leaf extract equal to Tagamet (cimetidine) and Zantac (ranitidene) for ulcers (RAI).

**GENIP (*Melicoccus bijugatus* Jacq.) ++****SAPINDACEAE****M****Illustrations:**

p 307 (L&W)

**Synonyms:**

*Melicocca bijuga* L.; fide (USN).

**Common Names:**

Ackee (Ma.; JFM); Canape (His.; AHL); Chenet (Ma.; Trin.; JFM; L&W); Escanjocote (Ma.; Nic.; JFM; L&W); Ganip (Ma.; JFM); Genip (Eng.; USN); Genipe (Ma.; JFM); Ginep (Ma.; JFM); Grosella de Miel (Ma.; JFM); Guaco (Sp.; HOC); Guenepa (Ma.; JFM); Guinep (Ma.; JFM); Honeyberry (Eng.; USN); Honigbeere (Ger.; USN); Kanappy (Ma.; JFM); Kenèp (Creole; Haiti; JFM; VOD); Kenepa (Ma.; JFM); Kenepa Machu (Ma.; JFM); Kenépier (Fr.; Guad.; L&W; USN); Kenip (Eng.; Ma.; JFM; VOD); Kinep (Ma.; JFM); Kinnup (Cuba; Sp.; RyM; USN); Kinnup Tree (Dwi.; L&W); Knepa (Ma.; JFM); Knippa (Ma.; JFM); Knippen (Ma.; Sur.; JFM; L&W); Limoncillo (Dor.; Ma.; JFM; L&W); Macao (Ma.; JFM); Maco (Ma.; JFM); Mamon (Ma.; Sp.; JFM; L&W); Mamoncillo (Ma.; Sp.; JFM; L&W; USN); Mamoncillo Criolla (Ma.; JFM); Mamon de Cartagena (Cr.; Ma.; JFM; L&W); Mauco (Ma.; JFM); Muco (Ma.; JFM); Pitomba (Peru; DAV); Quénep (Fr.; VOD); Quenepa (Col.; Dor.; Ger.; Ma.; Pr.; JFM; L&W; USN); Quenepe (Ma.; Haiti; JFM; L&W); Quenepier (Haiti; AHL); Quenepier Male (Haiti; AHL); Quenepo (Dor.; AHL); Quenette (Fr.; Guad.; Ma.; JFM; USN); Quettier (Guad.; L&W); Sensiboom (Ma.; JFM); Spanish Lime (Eng.; Ma.; JFM; L&W; USN); Sunaka (Ulwa; ULW).

**Activities:**

Abortifacient (f; JFM); Astringent (f; JFM; ULW); Febrifuge (f; AHL; JFM); Hypotensive (f; JFM); Refrigerant (f; JFM).



**Indications:**

Abortion (f; JFM); Colds (f; JFM); Coughs (f; JFM); Debility (f; VOD); Diarrhea (f; JFM; ULW; VOD); Dysentery (Sp.; HOC); Fever (f; AHL; JFM; VOD); High Blood Pressure (f; JFM); Malaise (f; VOD); Neurosis (f; VOD); Shock (f; VOD); Sore Throat (f; VOD); Thrush (f; VOD); Tonsillitis (f; VOD).

**Dosages:**

FNFF = !! Fruits edible raw; stones eaten after toasting (JFM).

- Arubans take leaf twig decoction for abortion (JFM).
- Bahamans drink leaf decoction to lower HBP (JFM).
- Curaçaoans take leaf/twig decoction for cold and fever, formerly for abortion (JFM).
- Haitians gargle the leaf juice for sore throat, thrush, and tonsillitis (VOD).
- Haitians take fruit for chest weakness (VOD).
- Haitians take salted leaf decoction for neurosis (VOD).
- Haitians take leaf decoction for emotional shock, fever, and malaise (VOD).
- Haitians take seed sirup for diarrhea (VOD).
- Venezuelans take powdered seed with sugar water for diarrhea (JFM).
- Virgin Islanders drink leaf decoction for cough and fever (JFM).

**Downsides:**

Stones can choke children (JFM). As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

## LEMONBALM (*Melissa officinalis* L.) +++

### LAMIACEAE

**Illustrations:**

p 454 (CR2)

**Synonyms:**

*Melissa citriodorata* hort.; *M. cordifolia* Pers.; *M. hirsuta* (Pers.) Hornem.; fide (POR).

**Common Names:**

Abejera (Mex.; JTR); Apiastro (It.; EFS); Badaranj Mekka Sabzah (India; EFS); Badrunj Buyeh (Iran; AVP; EFS); Baklut ul Faristum (Arab.; EFS); Ballote Odorant (Guad.; AVP); Balm (Eng.; Ocn.; AH2; USN); Balm Mint (Eng.; BUR; EFS); Balsamito Major (Sp.; EFS); Bee Balm (Eng.; Ocn.; AH2; BUR; USN); Blue Balm (Eng.; AVP); Cedronella (It.; EFS); Celine (Fr.; AVP); Chan (Cr.; AVP); Chia de Colima (Mex.; AVP); Chia Gorda (Mex.; AVP); Chian (Cr.; AVP); Cidronela (Sp.; EFS); Citraginne (It.; EFS); Citragon (Fr.; EFS); Citraria (Sp.; USN); Citroen Melisse (Dutch; EFS); Citroenkruid (Dutch; EFS); Citromfü (Hun.; MAD); Citromszagú Mézfű (Hun.; EFS); Citronade (Fr.; HH2); Citronelle (Fr.; EFS); Citronenmelisse (German); Citronmeliss (Swe.; AVP; EFS); Common Balm (Eng.; BUR); Cureall (Eng.; BUR); Dropsy Plant (Eng.; BUR); Erba Cedrata (It.; Sp.; EFS; MAD); Erva Cidreira (Por.; EFS; USN); Gros Thym (Guad.; AVP); Hamandue Ingabaé (Bol.; Chiriguano; DLZ); Herba à Miel (Guad.; AVP); Herbe du Citron (Fr.; MAD); Herzkraut (Ger.; HH2); Hjertensfryd (Den.; EFS; MAD); Honey Plant (Eng.; BUR; EFS); Kovanotu (Tur.; EFS); Lemonbalm (Eng.; Scn.; AH2; CR2; USN); Maliteira (Por.; AVP); Mantrastu Guaçu (Por.; AVP); MeduÁka Lékarská (Che.; MAD); Melisa (Lithuania; Sp.; EFS; MAD); Melisa Cytrynowa (Pol.; AVP); Melissa (Eng.; It.; Ocn.; Por.; Rus.; AH2; EFS; MAD; USN); Melissa Balm (Eng.; Ocn.; AH2); Melissa de Pison (Por.; AVP); Melisse (Dutch; Fr.; Ger.; EFS); Mélisse Officinale (Fr.; USN); Oghoul (Tur.; AVP); Oğulotu (Tur.; EFS); Orégano (Dom.; AVP); Orégano Cimarrón (Cuba; AVP);

Piment des Abeilles (Fr.; MAD); Piment des Mouches (Fr.; AVP); Piment des Ruches (Fr.; AVP); Poincirade (Fr.; AVP); Ram Tulsi (India; EFS); Rihan Limoni (Arab.; AVP); Rojownik (Pol.; MAD); Sweet Balm (Eng.; AVP; EFS); Sweet Mary (Eng.; BUR); Thé de France (Fr.; AVP); Tipo (Shipibo/Conibo; MD2); Torongil (Sp.; EFS); Toronjil (Arg.; Bol.; Cuba; Sp.; Spain; ARG; DLZ; EFS; JTR; MD2; ROE); Tourengane (Arab.; AVP); Včelnik (Che.; MAD); Zitronen Melisse (Ger.; EFS; USN).

### Activities:

Analgesic (f1; EFS; JAR10:7); Anticholinesterase (1; JAD; X10687867); Antiherpetic (1; APA; HH2; PNC); Antihistaminic (1; FAD); AntiHIV (1; X9743251); Antihormonal (1; PH2); Antiinflammatory (f1; JAR10:7); Antimutagenic (1; TAD); Antioxidant (1; FAD; PH2; X15551397); Antiseptic (f1; APA; EFS); Antispasmodic (f1; APA; BGB; EFS; FEL; PH2; PHR; WAM); Antithyroid (1; AKT; PNC); Antiviral (f1; APA; HH2; PH2; PHR; SHT; WAM; X9743251); Anxiolytic (f1; APA; BGB; WAM; X12143909); Apoptotic (1; APA; BGB; PH2; WAM); Calmative (f; APA); Candidicide (1; JAR12:83); Cardiotoxic (f; MAD); Carminative (f12; EFS; KOM; PH2; PNC; WAM); Caspase-3-Inducer (1; X15931590); Cerebrotonic (f; MAD); Choleric (1; HH2); Cholinergic (1; BGB; X10411211; X10687867; X9884179); CNS-Depressant (f; APA); Cordial (f; EFS); Diaphoretic (f; BGB; FEL; PNC; WAM); Digestive (f; EFS); Emmenagogue (f; EFS); Febrifuge (f; PNC); Fungicide (f1; JAR12:83); Gastrotonic (f; MAD); Hypnotic (f; BGB); Ileorelaxant (1; X12837359); Lactagogue (f; EFS; NMH); Memorogenic (1; BGB; X10411211); Myorelaxant (f1; APA); Nervine (f1; EFS; WAM); Orexigenic (1; BGB); RT-Inhibitor (1; X9743251); Sedative (f12; EFS; HHH; KOM; PNC); Sternutatory (f; EFS); Stimulant (f; FEL); Stomachic (f; BGB; EFS); Sudorific (f; EFS); Tranquilizer (f1; APA; X12143909; X15272110); Uterotonic (f; MAD).

### Indications:

Allergies (1; JAR10:7); Alopecia (f; MAD); Alzheimer's (12; FNF; JAD; MAD; X10687867; X12810768); Amnesia (1; X10411211); Anemia (f; ROE); Angina (f; MAD); Anxiety (f12; APA; BGB; WAM; X12143909); Arrhythmia (f1; HG57:40); Arteriosclerosis (f; MAD); Asthma (f; MAD; ROE); Backache (f1; MAM); Bites (f; MAD); Bronchosis (f; PHR; PH2; ROE); Bruises (f; MAD); Bugbites (f; FAD; MAD); Cancer (f; JLH; MAD); Cancer, gum (f; JLH); Cancer, liver (f; JLH); Cancer, spleen (f; JLH); Cancer, stomach (f; JLH); Cancer, throat (f; JLH); *Candida* (1; JAR12:83; MAM); Cardalgia (f; HG57:40); Cardiopathy (f; APA; EGG; HG57:40); Catarrh (f; PHR; PH2; ROE); CFS (f; WAF); Chlorosis (f; MAD); Colds (f1; FAD; MAM); Colds Sores (12; APA; WAF); Colic (f1; MAD; MD2; X16041731); Convulsions (f; ROE); Cramps (f1; HH2; MAD; WAM); Cystosis (f; JAR10:7); Debility (f; PH2); Dementia (12; MAM; X12143909); Depression (f1; BGB; MAD; X15652288); Dermatitis (1; JAR10:7); Dysentery (f; ROE); Dysmenorrhea (f; APA; FAD; FEL; PH2); Dyspepsia (f12; APA; BGB; SKY); Dyssomnia (1; X16487692); Dystonia (1; PNC); Earache (f; HH2; MAD); Eczema (1; JAR10:7); Enterosis (f12; KOM; MAD; PH2); Fatigue (f; EGG); Fever (f1; FEL; WAM); Flu (f1; MAM; WAF); Fungus (f1; JAR12:83); Furuncles (f; HG57:40); Gas (f1; APA; MAD; MD2; PH2; WAM); Gastrosis (f12; KOM; MAD; PH2); Gastrospasm (12; SHT); Gingivitis (f; MAD); Grave's Disease (1; PNC; SKY); Gray Hair (f; MAD); Headache (f1; APA; MAD; PH2; PNC; ROE); *Helicobacter* (1; X16317658); Hepatosis (f; JFM; MAD); Herpes (f12; BGB; PNC; WAM; X10589440; X16813459); High Blood Pressure (f1; HG57:40; PHR; PH2); HIV (1; X9743251); Hyperthyroid (1; FNF; PNC); Hyperventilation (f; JAR10:7); Hypochondria (f; MAD; ROE); Hysteria (f; EGG; MAD; PHR; PH2); Infection (f1; JAR12:83); Insomnia (f12; APA; EGG; KOM; PH2; SHT; X15272110; X15984105; X16487692); Melancholy (f; HH2; PHR; PH2); Meteorism (f12; PHR); Migraine (f; MAD; PHR; PH2; ROE); Mumps (f1; FAD; ROE); Mycosis (1; JAR12:83); Nausea (f; MD2; PHR; WAF); Nephrosis (f; MD2); Nervousness (f12; APA; PHR; PH2; WAM); Neuralgia (f1; PH2; SKY); Neuras-

thenia (f; MAD); Neurosis (f1; X15652288); Ophthalmia (f; MAD); Otitis (1; WAF); Pain (1; JAR10:7; MAD; PH2); Palpitations (1; APA; PHR; PH2; PNC); Respirosis (1; JAR10:7; WAM); Restlessness (1; PNC; X16487692); Rheumatism (f; MAD; PH2); Sclerosis (f; JLH); Shingles (1; WAF); Shock (1; JAR10:7); Snake Bite (f; MAD); Sores (f1; WAM); Sore Throat (f1; ROE; WAF); Splenosis (f; JLH; MAD); Stings (f; BGB; MAD); Stomachache (f; ROE); Stress (f12; WAF; X12143909; X15272110); Swelling (f; MAD); Syncope (f; MAD); Toothache (f; HH2; MAD); Tumors (f1; JLH; PNC); Ulcers (1; X16317658); Vertigo (f; PH2); Viruses (f12; JAR10:7; X10589440; X16813459; X9743251); Vomiting (f; PH2); Wounds (f; APA; BGB); Yeast (1; JAR12:83; MAM).

#### Dosages:

FNFF = !! In Facciola's marvelous Cornucopia II (1998), we read that the fragrant leaves are used to flavor butters, claret cups, eggs, liqueurs (e.g., Benedictine, Chartreuse), salads, sauces, soups, and vinegars (FAC). 1–3 tsp herb/cup water (APA); 1.5–2 g/cup tea (HHB); 1.5–4.5 g/cup water (KOM); 2–3 tsp (3.2–4.8 g) hot tea/day (MAD); 8–10 g herb (PHR); 0.5–1.5 tsp tincture 3×/day (APA); 2–3 ml tincture 3×/day; 2–6 ml liquid herb extract (PNC).

- Andeans take the tea for bronchitis, cardiopathy, childbirth, cholera, headache, nausea, pneumonia, and stomachache (ROE).
- Madre de Dios natives take the tea for colic, gas, nausea, and nephrosis (MD2).

### CIPO CABELUDO (*Mikania banisteriae* DC.) +

#### ASTERACEAE

#### Synonyms:

*Mikania hirsutissima* DC.

BAZ lists more than a dozen obscure synonyms in Peru, for which I find no ethnobotany.

#### Notes:

Shall I rebel against the American Herbal Products Association and refuse to recognize the scientific name *Mikania banisteriae* as the standardized name, or even use their other common name "cipo cabeludo," which I fear is misspelled. Yes, I'll go with Taylor's selection, "cipo cabeludo" (RAI).

#### Common Names:

Cipo Cabeludo (Brazil; MPB; RAI); Cipo Cabelundo (Ocn.; AH2); Erva Dutro (Brazil; MPB); Guaco (Brazil; MPB); Mikania Banisterae (Scn.; AH2).

#### Activities:

Analgesic (f; MPB; RAI); Antiaggregant (f; RAI); Antiinflammatory (1; X12237807); Anti-leukemic (1; X10553640); Antiproliferant (1; X15081289); Antiseptic (1; RAI); Cytotoxic (1; RAI; X10553640); Diuretic (f; RAI); Expectorant (f; RAI); Hypouricemic (f; MPB); Molluscicide (1; RAI; X6548884); Mucolytic (f; RAI); Nervine (f; RAI).

#### Indications:

Albuminuria (f; MPB; RAI); Arthrosis (f; RAI); Bronchosis (f; RAI); Cancer (1; RAI; X10553640); Colic (f; RAI); Cystitis (f; RAI); Diarrhea (f; MPB; RAI); Enterosis (f; RAI); Gallstones (f; RAI); Gout (f; RAI); Hyperuricemia (f; MPB; RAI); Infection (1; RAI); Inflammation (1; X12237807); Kidney Stones (f; RAI); Leukemia (1; RAI; X10553640); Lumbago (f; RAI); Myalgia (f; RAI); Nephrosis (f; MPB; RAI); Nervousness (f; RAI); Neuralgia (f; MPB; RAI); Pain (f; MPB; RAI); Paralysis (f; MPB); Prostatitis (f; RAI); Rheumatism (f; MPB); Urethrosis (f; RAI); UTIs (f; RAI).

**Dosages:**

FNFF = ? Not widely used outside Brazil (RAI). ½ cup shoot tea 1–2×/day (RAI); 5–10 ml shoot tincture 1×/day (RAI).

- Brazilians suggest for albuminuria, arthritis, colic, cystitis, diarrhea, enterosis, gallstones, gastrosis, gout, hyperuricemia, intercostal neuralgia, kidney stones, lumbago, myalgia, nephrosis, neuralgia, pain, paralysis, prostatitis, rheumatism, urethrosis, and UTIs (MPB; RAI).

**Downsides:**

As with any medicine, the activities of this herb may augment similar activities of pharmaceuticals. Containing unquantified coumarin, it might possibly augment hard core blood thinners like coumadin (RAI). As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**SANQUILLO (*Mikania congesta* DC.) ++****ASTERACEAE****Synonyms:**

*Mikania atriplicifolia* Sch. Bip. ex Miq.; *M. parkeriana* DC.; *M. scandens* var. *congesta* (DC.) Baker; *M. sieberiana* DC.; *M. variabilis* Gardner; *Willoughbya scandens* var. *congesta* (DC.) Kuntze.

**Notes:**

Names and uses generic with *Mikania micrantha* and *M. sieberana* (fide GMJ).

**Common Names:**

Baume Celeste (Creole; Guy.; GMJ); Grinaldia da Noiva (Por.; GMJ); Sanquillo (Peru; Sp.; LOR; MDD); Umerussan (Palikur; GMJ); Yamaka Kunami (Wayãpi; GMJ).

**Activities:**

Aperitive (f; GMJ); Cholagogue (f; GMJ); Depurative (f; GMJ); Febrifuge (f; GMJ); Laxative (f; GMJ); Tonic (f; GMJ).

**Indications:**

Anorexia (f; GMJ); Appetite (f; GMJ); Constipation (f; GMJ); Fever (f; GMJ); Malaria (f; GMJ).

**Dosages:**

FNFF = ?

**GUACO (*Mikania guaco* Bonpl.) ++****ASTERACEAE****Illustrations:**

fig 34 (MPG) (*M. glomerata*); p 1031 (ARG)

**Synonyms:**

*Cacalia trilobata* Vell.; *Mikania amara* Willd. var. *guaco* (Humb. & Bonpl.) Baker; *M. hederaefolia* DC.; *M. olivacea* Klatt; fide (ARG; BNA; MPG).

**Notes:**

I've decided to go along with Taylor (2005), who rather aggregates several species of *Mikania* called "guaco," *M. cordifolia*, *M. glomerata*, *M. guaco*, and *M. laevigata*.

Any RAI citation below could apply to any of those four species of *Mikania* (Taylor, 2005). Mors et al. (2000) entries (as MPB) apply to *M. cordifolia* and *M. glomerata*. Liogier (1974) and Roig y Mesa (1945) entries (as AHL and JTR) apply to *M. cordifolia*. Gupta (1995) entries (as MPG) apply to *M. glomerata*. Taylor says, perhaps referring to one species, perhaps referring to all four, that crushed leaves suggest the aroma of pumpkin pie spice, the flowers smelling of vanilla, especially after a rain (RAI). May contain as much as 10% coumarin (RAI).

### Common Names:

Bejuco de Aradores (Pr.; JTR); Bejuco de Finca (Dor.; Ma.; AHL; RAI); Bejuco de la Estrella (Ma.; JFM); Cepú (AHL; RAI); Cipó Catinga (Brazil; Creole; Guy.; EGG; GMJ; RAI); Corção de Jesus (Brazil; Ma.; MPB; RAI); Erva das Serpentes (Ma.; RAI); Erva de Cobra (Brazil; JTR; MPB); Erva de Sapo (Brazil; MPB); Guace (RAI); Guaco (Arg.; Brazil; Dutch; Eng.; Fr.; Ger.; Peru; Scn.; Sp.; AH2; ARG; EFS; EGG; LOR; MDD); Guaco de Cheiro (Ma.; RAI); Guaco Morado (Ma.; Sp.; EFS; JFM); Guako (Den.; EFS); Guasca (Ma.; JFM); Herba Capitana (Ma.; JFM); Hoja de Guaco (Ma.; JFM); Huaco (Ger.; Peru; EFS; RAR); Huaco Huanchohuisacha (Peru; EGG; SOU); Huanchohui Sacha (Peru; RAR); Lewe Epit (Wayana; GMJ); Liane Francois (Fr.; Haiti; AHL; RAI); Liane Sor Francois (Haiti; AHL); Matafinca (Dor.; Sp.; AHL; RAI); Radie Grage (Creole; Guy.; GMJ); Radie Serpent (Creole; Guy.; GMJ); Sucurijú (Brazil; EGG; RAR); Toxichec Cimmarón (Mex.; JTR); Uaco (Brazil; MPB); Vedolín (Ma.; AHL; RAI); Verdolín (His.; AHL); Wape (Ma.; JFM); Yamaka Hunami (Creole; Guy.; GMJ); Zerb' Grage (Creole; Guy.; GMJ).

### Activities:

Abortifacient (f; EGG); Antiadherent (1; X15707750); Antihistaminic (1; RAI); Antiinflammatory (1; RAI); Antimalarial (f; EFS); Antiophidic (1; X16084045); Antirheumatic (f; DAV); Antisecretory (1; X15693711); Antiseptic (1; RAI); Antisyphilitic (f; RAR); Antitussive (f1; RAI); Antiulcer (1; X15693711); Bactericide (1; RAI; X15707750); Bronchodilator (1; MPG; RAI); Candidicide (1; RAI); Diaphoretic (f; JFM); Diuretic (f; JFM); Emetic (f; MPG); Emmenagogue (f; JFM); Expectorant (1; RAI); Febrifuge (f; DAV; EGG); Herbicide (f; RAR); Hypotensive (f; MPG); Laxative (f; MPG); Metalloprotease-Inhibitor (1; X16084045); Orexiogenic (f; MPG); Protisticide (1; RAI); Serineprotease-Inhibitor (1; X16084045); Stomachic (f; DAV); Vermifuge (f; DAV).

### Indications:

Albuminuria (f; EGG; RAI; RAR); Allergies (1; RAI); Anorexia (f; MPG); Arthrosis (f; RAI); Asthma (f; JFM; MAX); Bacteria (1; RAI; X15707750); Bronchosis (f1; RAI); Cancer (f; JLH); *Candida* (1; RAI); Catarrh (f; JFM); Childbirth (f; EGG); Cholera (f; EFS; RAI); Colds (f1; RAI); Colic (f; MPB); Constipation (f; MPG); Coughs (f1; MPG; RAI); Dermatitis (f; GMJ; RAI); Diarrhea (f; JFM; JTR); Dog Bites (f; MAX); Dysmenorrhea (f; EGG; MAX; MPB); Dysuria (f; RAR); Edema (f1; RAI); Enterosis (f; JTR; MPB; RAI); Fever (f; DAV; EGG; MAX; RAI); Flu (f1; RAI); Gastrosis (f; EGG; MAX; RAI); Gout (f; JFM; RAI); Hepatosis (f; JFM); High Blood Pressure (f; MPG); Hydrophobia (f; EGG); Hysteria (f; MPB); Infection (1; RAI; X15707750); Inflammation (f1; MPG; RAI); Itch (f; GMJ; MPG); Laryngosis (f; RAI); Malaria (f; EFS; RAI); Neuralgia (f; MPG; RAI); Oliguria (f; MPG); Pain (f; EGG; MPB; RAR); Periodontosis (1; X15707750); Pharyngosis (f1; RAI); Pleurisy (f; RAI); Respirosis (f1; EGG; MPG; RAI); Rheumatism (f; DAV; MAX; MPG; RAI); Snake Bite (f1; EGG; MAX; RAI; X16084045); Sores (f; MAX); Sore Throat (f1; MPG; RAI); Spasms (f; MAX; RAI); Stomachache (f; MAX); Stomatosis (f; MPG); *Streptococcus* (1; X15707750); Swelling (f1; RAI); Syphilis (f; EGG; RAI; RAR); Tetanus (f; MAX); Tonsilosis (f1; RAI); Trichomonas (1; RAI); Trypanosoma (1; RAI); Tumors (f; JLH); Ulcers (f1; RAI; X15693711); Urogenitosis (f; JFM); VD (f; RAR); Worms (f; DAV; MAX); Wounds (f1; RAI); Yeast (1; RAI).

**Dosages:**

FNFF = ? Not food pharmacy. Juice viewed as antidote to mad dog bites, scorpion stings, snake bite, and tetanus (JFM). ½ cup leaf tea 3–4×/day (RAI); 3–4 ml leaf tincture 3×/day (RAI).

- Brazilians use herb for albuminuria, anorexia, arthrosis, asthma, bronchosis, cancer, cholera, cold, cough, enterosis, fever, flu, gout, high blood pressure, infection, inflammation, influenza, itch, laryngosis, neuralgia, pain, pharyngitis, pleurisy, rheumatism, snake bite, sore throat, stomatitis, syphilis, tonsillitis, and wounds (MPG; RAI).
- Colombians take the leaf infusion for hepatitis (JFM).
- Costa Ricans regard the decoction as astringent, antispasmodic, febrifuge, and vermifuge (JFM).
- Dominicans use for cholera, fever, and flu (RAI).
- Guatemalans regard the decoction as anticatarrhal, diuretic, emmenagogue, and sudorific (FHM).
- Guyanans use for bugbites, dermatosis, eruptions, itch, and snake bite (RAI).
- Haitians use for fever, malaria, and syphilis (RAI).
- Mexicans use for asthma, bites, dysmenorrhea, fever, gastrostis, malaria, rheumatism, stings, snake bite, sores, and tetanus (RAI).
- Venezuelans, hoping to immunize against snake bite, insert leaf juice into the hands for several days, the process called “guanunacion.” If the inoculation is unsuccessful they take 2 tsp juice after a snake bite (JFM)

**Downsides:**

Large doses can be emetic and laxative (MPG). As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

## CLIMBING HEMPWEED (*Mikania micrantha* Kunth) ++

### ASTERACEAE

**Notes:**

Names and uses generic with *Mikania congesta* and *M. sieberana* (fide GMJ). Grenand et al. (1987) entries (as GMJ) below accrue more to *M. congesta*. Morton (1977, 1981) relegates *M. congesta* to synonymy (JFM).

**Common Names:**

Baume Celeste (Creole; Guy.; GMJ); Bejuco Llovizna (Ma.; JFM); Bittervine (Eng.; Wi.; USN); Broko Bakka W'wiri (Ma.; JFM); Camotillo (Peru; SOU); Carobinha (Brazil; Por.; USN); Climbing Hempweed (Eng.; USN); Falso Guaco (Ma.; JFM); Goucka (Ma.; JFM); Grinaldia da Noiva (Por.; GMJ); Guaco (Ma.; JFM); Guaco Blanco (Ma.; JFM); Guaco Rebalsera (Ma.; JFM); Guaco Verdadeiro (Brazil; Por.; USN); Liane-Serpent (Fr.; USN); Manchamans (Peru; SOU); Mile-a-Minute (Eng.; USN); Ñame de Raton (Ma.; JFM); Playa Huasca (Peru; Sp.; LOR; RAR; SOU); Sanguillo (Peru; RAR); Sanquillo (Peru; Sp.; LOR; MDD; SOU); Uahkoxiu (Ma.; JFM); Umerussan (Palikur; GMJ); Wape (Ma.; JFM); Yamaka Kunami (Wayãpi; GMJ).

**Activities:**

Antiseptic (f1; JE63:253); Aperitive (f; GMJ); Bactericide (1; JE63:253); Cholagogue (f; GMJ); Depurative (f; GMJ); Febrifuge (f; GMJ); Fungicide (1; JE63:253); Hemostat (f; EB24:281; EB28:11); Laxative (f; GMJ); Tonic (f; GMJ).

**Indications:**

Appetite (f; GMJ); Athlete's Foot (f; EB30:141); Bacteria (1; JE63:253); Bites (f; EB28:11); Bleeding (f; EB24:281; EB28:11); Bruises (f; JFM); Burns (f; EB28:11); Cancer (f; JFM);

*Candida* (1; X10678503); Colic (f; JFM); Constipation (f; GMJ); Coughs (f; EB28:11); Dermatitis (f; JFM); Enterosis (f; JFM); Fever (f; GMJ); Fungus (1; JE63:253); Infection (f1; JE63:253); Malaria (f; GMJ; JFM); Mange (f; JFM); Mycosis (1; JE63:253); Snake Bite (f; EB28:11); Sores (f; DAW); *Staphylococcus* (1; X10678503); Syphilis (f; JFM); Tumors (f; JLH); VD (f; JFM); Wounds (f; EB24:281); Yeast (1; X10678503).

**Dosages:**

FNFF = ?

**AMOR DORMIDO (*Mimosa polydactyla* Humb. & Bonpl. ex Willd.) ++**

FABACEAE

**Illustrations:**

fig 155 (DAV)

**Common Names:**

Amor Dormido (Peru; Sp.; LOR); Juquiri (Por.; GMJ); Malicia (Por.; GMJ); Malicia das Mulheres (Por.; GMJ); Radie Lan Mort (Creole; Guy.; Palikur; GMJ); Sensitiva (Peru; Sp.; MDD); Sensitive (Fr.; GMJ); Sleeping Love (Eng.; DAV); Vergonsosa (Peru; Sp.; LOR); Yiway (Wayãpi; GMJ).

**Activities:**

Sedative (f; DAV).

**Indications:**

Insomnia (f; DAV); Nervousness (f; DAV).

**Dosages:**

FNFF = ? Shaman Antonio Montero Pisco claims that if taken for 6 months relative to her period, a women can render herself permanently sterile (as with *Bauhinia*).

**SENSITIVE PLANT (*Mimosa pudica* L.) ++**

MIMOSACEAE

**Illustrations:**

p 320 (NPM); pl 373B (KAB)

**Notes:**

Associated with the deity Exu, in the Afro-Brazilian Candomblé religion, the plant decoction is gargled for oral inflammation and sore throat (VOD quoting Voeks, 1997). Many of

the names and folk uses derive from the thigmatropic leaves, closing instantly when touched. After the ferns *Pityrogramma calomelanos* and *Pteris vittata*, *Mimosa pudica* seemed suitable for phytoremediation in arsenic polluted soils. The ferns accumulated arsenic up to 8,350 µg/g (dry mass) in the frond (X12009144).

### Common Names:

Adoriban (Assam; WOI); Adormidera (Sp.; JLH); Amboafotsikely (Hova; KAB); Amourette (Guad.; Mart.; AVP); Anankoay (Betsimisaraka; KAB); Anjalikaraka (Sanskrit; KAB); Arrannhadeiras (Ma.; JFM); Atangaow (Congo; AVP); Atta Patti (Tel.; DEP; WOI); Awadzor (Awuna; Ewe; KAB); Bhuina Lahara (Nepal; NPM); Bohorijhar (Nepal; KAB); Buhhari Jhar (Nepal; NPM); Bujang Kajit (Sunda; IHB); Caaco (Ma.; JFM); Cac-Kix (Ma.; JFM); Cerrate Puta (Bol.; DLZ); Chui Mui (Hindi; WOI); Cierra de Puta (Ma.; JFM); Ciérrate-Ciérrate (Peru; RAR); Cierratus Puertas (Guat.; JFM; JTR); Damohiya (Tag.; KAB); Dead And Wake (Jam.; AVP); Dedhasurobarasuni (Oriya; KAB); Dorme Maria (Ma.; JFM); Dormideira (Brazil; NPM); Dormidera (Cuba; Sp.; AVP; JTR; USN); Dormilón (Bel.; Sp.; AAB; BNA); Dormilona (Bel.; Cr.; Mex.; AVP; BNA; JTR); Durum Janum (Mun.; KAB); Durum Junum (Mun.; WOI); Efumuano (Fanti; KAB); Feuilles Ilan Dormi (Haiti; AVP); Féy Lan Domi (Creole; Haiti; VOD); Fombalikoko (Congo; AVP); Guara K'ish (Bel.; BNA); Gúsu Nebénene (Garifuna; Nic.; IED); Ham Tu Thao (Ic.; KAB); Han Xiu Cao (Pin.; AH2); Herbe Chaste (Fr.; KAB); Honte (Haiti; AVP); Hte Ka Yung (Burma; DEP; KAB); Humble Plant (Eng.; NPM); Imbune (Zulu; ZUL); Jukut Borang (Sunda; IHB); Jukut Borangan (Sunda; IHB); Jukut Gèhgèhran (Sunda; IHB); Jukut Riyud (Sunda; IHB); Jump Up and Kiss Me (Ma.; JFM); Juquiri (Brazil; MPB); Juquirí Grande (Brazil; RAR); Kadergitte (Kan.; KAB); Kama Muja (Chepang; NPM); Kambatsamthia (Khasi; Meghalaya; SKJ; WOI); Kanti (Tel.; DEP); Kasirorttam (Tam.; KAB); Kěman (Malaya; IHB); Kěmbang Gajah (Malaya; IHB); Kěmunchup (Malaya; IHB); Kruidje Poer Me Niet (Dwi.; JFM); Kuchingan (Java; IHB); La Honteuse (Haiti; AVP); Lájak (Ben.; DEP; KAB; NAD); Lajalú (Guj.; Hindi; Mar.; DEP; KAB; WOI); Lajamani Jhar (Nepal; NPM); Lajania (Nepal; KAB); Lajanti Jhar (Nepal; NPM); Lajauni (Danuwar; Mooshar; NPM); Lajja (Kan.; WOI); Lajjabatti (Ben.; Bom.; NAD; WOI); Lajjalu (Ayu.; Sanskrit; Urdu; AH2; DEP; KAB; NAD); Lajjávati (Hindi; DEP); Lajjawati (Nepal; NPM); Lajkuri (Oriya; WOI); Lajri (Mah.; Kon.; NAD); Lájrta (Mar.; DEP); Lajuwa (Rai; NPM); Lajwanthi (Gwalior; NAD); Lajwanti (Kum.; Pun.; KAB); Lájwánti (Hindi; Kum.; Pun.; DEP; WOI); Lajyati (Nepal; NPM); LaLati Jhar (Nepal; NPM); Mai Yarap (Thai; IHB); Maldiva (Cuba; Ma.; JFM; JTR); Malicia das Mulheres (Brazil; Por.; AVP; RAR); Malicia del Mulher (Brazil; AVP; JFM; MPB; RAR); Malu-Malu (Malaya; IHB); Manox (Chiriguano; DLZ); Marie Honte (Guad.; Mart.; AVP); Matavirgen (Sp.; KAB); Měmalu (Malaya; IHB); Menganha (Nagaland; SKJ); Mètz (Bel.; BNA); Mhaira (Gurung; NPM); Mimosa (Eng.; Guad.; Mart.; AVP; VOD); Mimose (Ger.; AVP); Morir Vivir (Dor.; AVP; JFM); Morivivi (Ma.; JFM); Mori Vivi (Cuba; Dor.; Pr.; AVP; JTR); Mouri-Lévé (Creole; Haiti; AVP; VOD); Mudugu Davare (Kan.; DEP; WOI); Mumuankang (Twi; KAB); Munuguda Maramu (Tel.; NAD); Nachikay Gida (Kan.; NAD); Nachike (Kan.; WOI); Nani Jhar (Nepal; NPM); Nani Kanda (Nepal; NPM); Nasikedai (Tulu; KAB); Nauapate (Cr.; AVP; JFM); Ngaza (Congo; AVP); Nidaune Jhar (Nepal; NPM); Nilajban (Assam; SKJ; WOI); Oshayo Mba (Ga; KAB); Pebamran (Tamang; NPM); Pedda Nidra Kanni (Tel.; DEP; KAB); Pedda Nidra Kanti (Tel.; DEP); P'enqakoq (Que.; DLZ); P'enqakoq Mana P'enqakoq (Que.; DLZ); Penqa Penqa (Aym.; Bol.; DLZ); Pissabed (Ma.; JFM); Preah Khlop (Cam.; KAB); Punyosis (Que.; SAR); Puta Vieja (Cr.; AVP; JFM); Putěri Malu (Malaya; IHB); Rabo de Camaleão (Brazil; RAR); Radié lan Mort (Creole; Palikur; GMJ); Randelik (Java; IHB); Ra Ngap (Thai; IHB); Rastrera (Ma.; JFM); Risámani (Guj.; DEP); Ri Sirěpan (Java; IHB); Rondo Kagit (Sunda; IHB); Ront (Creole; Haiti; VOD); Ronte (Haiti; AVP); Rumput Rimao (Malaya; IHB); Sansitiv (Creole; Haiti; VOD); Sěmalu (Malaya; IHB); Sensitiva (Cat.; Cuba; Mex.; Peru; Por.; Pr.; Sp.; AVP; JFM);



JTR; KAB; RAR; RyM; SOU; USN); Sensitive (Fr.; Gabon; AVP; USN); Sensitive Commune (Fr.; NAD); Sensitive Épineux (Fr. Guiana; Haiti; AVP; JFM; KAB); Sensitive Grass (Ma.; JFM); Sensitive Plant (Eng.; Scn.; AH2; USN; VOD); Sentidiva (Pr.; AVP); Sentiva (Col.; AVP); Shaamhafte Sinnplause (Ger.; NAD); Shama (Ma.; JFM); Shame a Lady (Ma.; JFM); Shame Face (Ma.; JFM); Shame Plant (Eng.; USN); Shame Weed (Eng.; Jam.; AVP; USN); Sharambuti (Nasirabad; KAB); Shut Weed (Ma.; JFM); Simpflanze (Ger.; AVP); Sinnpflanze (Ger.; USN); Sin Vergüensa (Ma.; JFM); Smitchip (Meghalaya; SKJ); Sunteshu (Meghalaya; SKJ); Sunteshuh (Assam; WOI); Takayung (Burma; DEP); Tapate (Peru; SOU); Ten Vergüensa (Mex.; JFM; JTR); Thattarvadi (Ker.; SKJ); Thottal Chinungi (Tam.; DEP; WOI); Thottamvati (Mal.; NAD); Ti Marie (Ma.; JFM); Tintarmani (Mal.; KAB; MPI; WOI); Total Vadi (Tam.; DEP; WOI); Tottarsinungi (Madras; KAB); Touch Me Not (Eng.; USN); Trompe la Mort (Réunion; KAB); Twelve-O'clock (Bel.; AAB; BNA); Váráhkrántá (Sanskrit; DEP); Vergognosa (It.; KAB); Vergonha (Brazil; JFM; MPB); Vergonhosa (Ma.; JFM); Vergonsoza (Peru; SOU); Vergonzosa (Cuba; Pr.; JFM; JTR); Xmutz (Bel.; BNA; JFM); Yiwāyi (Wayāpi; GMJ); Z'amourette (Fr.; USN); Z'amourette Honte (Fr.; JFM); Zarza (Sp.; JFM); Zhand (Pushtu; DEP; KAB); Z'herbe Manzelle (Guad.; Mart.; AVP); Z'herbe Z-amuser (Guad.; Mart.; AVP).

### Activities:

Abortifacient (f; JFM); Adrenergic (1; WOI); Alexiteric (f; KAB); Alopecic (f1; WOI); Alterative (f; DEP); Analgesic (f; AAB); Anticonvulsant (1; X15158987); Antidepressant (f1; X11962537); Antidote (f; VOD); Antifertility (1; X11933127); Antiinflammatory (1; AAB); Antiophidic (1; X15159000); Antiseptic (f1; AAB; NAD; X7594314); Antispasmodic (f1; AAB; KAB); Antiviral (1; AAB; MPI); Anxiolytic (f1; X11962537); Aphrodisiac (f; DLZ; NAD; NPM; RAR; VOD); Bactericide (1; AAB; X7594314); Bitter (f; MPB); Carminative (f; NAD); Contraceptive (1; MPI); Depurative (f; KAB; VOD); Diuretic (f1; AAB; JFM; MPI); Emetic (f; JFM; NPM; VOD); Febrifuge (f; JFM); Goitrogenic (f; VOD); Hemostat (f; IED); Herbistat (1; JFM); Hyaluronidase-Inhibitor (1; X15159000); Hyperglycemic (1; X12234583); Lactagogue (1; WOI); Larvicide (1; X2082565); Litholytic (f; DEP); Myorelaxant (f; AAB); Nematocide (1; X2082565); Nephrotoxic (f; VOD); Neurogenic (1; MPI); Protease-Inhibitor (1; X15159000); Purgative (f; MPB); Sedative (f; AAB; EGG; IHB); Spasmogenic (1; MPI); Sudorific (f; KAB); Tonic (f; KAB; MPB; VOD); Toxic (f; SOU); Tranquilizer (f; AAB); Vermifuge (f; ZUL); Vibriocide (1; X7594314); Vulnerary (f; KAB).

### Indications:

Adenopathy (f; JLH; NPM; WOI); Anemia (f; VOD); Anxiety (f1; X11962537); Arthrosis (f; MPB); Asthma (f; KAB; NPM); Backache (f; AAB); Bacteria (1; AAB); Bilioussness (f; DEP); Bleeding (f; IED); Calculus (f; KAB); Childbirth (f; SKJ; VOD); Cholera (1; X7594314); Conjunctivitis (f; DEP; KAB); Convulsions (f; KAB; ZUL); Corneosis (f; DEP); Coughs (f; NPM); Cramps (1; AAB); Depression (f1; X11962537); Dermatitis (f; NPM); Diphtheria (f; MPB); Dysentery (f; NPM; VOD); Dysmenorrhea (f; ZUL); Dyspepsia (f; IED); Dyspnea (f; VOD); Dysuria (f; JFM; WOI); Eczema (f; JFM); Edema (f; KAB; MPB); Fatigue (f; KAB); Fever (f; JFM; NPM); Fistula (f; DEP; KAB); Gingivitis (f; SKJ); Gonorrhoea (f; MPB); Gout (f; NPM); Gravel (f; DEP; WOI); Guinea Worm (f; KAB); Hemorrhoids (f; DEP; NPM; WOI); Hip Ache (f; NAD); Hoarseness (f; VOD); Hydrocele (f; DEP); Impotence (f; DLZ; NPM; VOD); Infection (1; AAB; X7594314); Inflammation (f; KAB; NPM; VOD); Insomnia (f; AAB; EGG; IHB; ZUL); Jaundice (f; DEP); Laryngitis (Brazil; RAR); Leprosy (f; DEP; KAB); Leukorrhoea (f; MPB; MPI); Lumbago (f; JFM); Myalgia (f; KAB); Nematode (1; X2082565); Nephrosis (f; JFM; NAD; NPM); Nervousness (f; AAB; ZUL); Pain (f; NAD); Palpitations (f; ZUL); Pox (f; DEP); Rheumatism (f; KAB; MPB); Scabs (f; DEP); Sciatica (1; MPI); Scrofula (f; KAB; MPB); Sinusitis (f; DEP; WOI); Snake Bite (f1; KAB; X15159000); Sores (f; DEP; WOI); Sore Throat (f; NPM; VOD); *Staphylococcus* (1; AAB); Stings (f; KAB); Stomatitis

(f; VOD); Strongyloidiasis (1; X2082565); Swelling (f; IHB; MPB; NPM; WOI); Teething (f; ZUL); Toothache (f; AAB; SKJ); Tumors (f; JLH; KAB; MPB); Urethrosis (f; NPM); Uterosis (f; KAB); Vaccinia (1; AAB); Vaginosis (f; KAB; NPM); VD (f; MPB); *Vibrio* (1; AAB; X7594314); Viruses (1; AAB; MPI); Water Retention (f; AAB); Worms (1; X2082565).

### Dosages:

FNFF = ?

- Asian Indian temporary birth control formula includes *Cissampelos pareira* L. with *Piper nigrum* L., root of *Mimosa pudica* L., and *Hibiscus rosa-sinensis* L. (X12266264).
- Belizeans boil 9 branches in 3 cups water 5 min, taking ½ cup 3–6×/day, as analgesic, antispasmodic, diuretic, and sedative (AAB).
- Belizeans dry leaves in oven (ca. 100°F) and smoke for backache, muscle spasm, and nervous irritability (AAB).
- Belizeans sprinkle powdered leaves on food as sedative (AAB).
- Bolivians from Yungas suspect the seeds are a powerful aphrodisiac (DLZ).
- Bolivians suggest the root decoction for pulmonary hemorrhage (DLZ).
- Brazilians bathe with root decoction for rheumatism and swellings (MPB).
- Brazilians use the root as emetic, the leaves for scrofula (KAB).
- Cambodians take the whole plant internally for vesical calculi (KAB), applying it topically for edema, myalgia, rheumatism, and uterine tumors (KAB).
- Cubans take the root decoction as abortifacient and febrifuge, applying it to eczema (JFM).
- Dominican Caribs use tea (with *Cassia bicapsularis* and *Petiveria*) to counteract poisons, hexes, and to facilitate childbirth (VOD).
- Dominicans infuse leafy shoots with *Panicum maximum* for dyspnea (VOD).
- Haitians use the leaf infusion for dysentery, the decoction as an antianemic depurative (VOD).
- Haitians use the root infusion as emetic (VOD).
- Jamaicans take decoction, boiled half down, with mistletoe, *Stylosanthes*, and *Tournefortia* for nervousness (JFM).
- Javans, signaturely indoctrinated, place leaves under the pillow to induce sleep (IHB).
- Madagascans use the antispasmodic, astringent, and diuretic plant for convulsions (KAB).
- Mexicans use aqueous extracts of dried leaves for depression (X11962537).
- Nepalese apply a paste of the plant, or the antiasthmatic juice, to gout (NPM).
- Nepalese take 4 tsp root juice/day for urinary inflammation (NPM).
- Nicaraguan Garifuna use plant decoction for aches and pains, dysmenorrhea, dyspepsia, and fever, and as abortifacient, hemostat, and vermifuge (IED).
- Peruvians suggest powdered dry leaves for insomnia (EGG).
- South American blacks apply leaves to glandular tumors (JLH).
- Trinidadans take leaf or root decoction as diuretic (in burning urination) and sedative (JFM).
- West Indians chew leaves to alleviate lumbago and nephritis (JFM).

### Downsides:

Contains the poisonous alkaloid mimosine. Could be a natural source of infection for *Fonsecaea pedrosoi*, a causal agent of chromoblastomycosis (X15057332). As of July 2007, the FDA Poisonous Plant Database listed 18 titles alluding to toxicity of this species.

### Extracts:

Ethanollic extract of leaves (250 mg/kg orl mus) had significant hyperglycemic effect (X12234583). Clomipramine (1.25 mg/kg, i.p.), desipramine (2.14 mg/kg, i.p.), and *M. pudica*

(6.0 and 8.0 mg/kg, i.p.) showed similar experimental anxiolytic activities (X11962537). Contains “epinephrine adrenalin” (AAB), noradrenaline (EGG), and mimosine (WBB; ZUL).

## IRONWOOD (*Minquartia guianensis* Aubl.) ++

### OLACACEAE

#### Synonyms:

*Minquartia macrophylla*; *M. parifolia*; *M. punctata*; *Eganthus poeppigii*; *Endusa punctata*; *Secretania loranthacea*; fide (RA2).

#### Notes:

So heavily logged in Costa Rica for lumber, it now appears on that country's endangered species list (RA2).

#### Common Names:

Acaiguara (RA2); Acapu (Brazil; Peru; RAR; RA2); Acapú (RA2); Acariguara (RA2); Acarioba (RA2); Acary (RA2); Ahumado (Peru; RAR; RA2); Aracuiba (RA2); Aralta (RA2); Arekuma (RA2); Arratt (RA2); Arratta (RA2); Black Manu (RA2); Black Manwood (RA2); Bois Agouti (RA2); Caricuara Negra (RA2); Criollo (RA2); Cuyubi (RA2); Eur-a-Grai (RA2); Fierro Caspi (Peru; Sp.; LOR; RA2); Guacuri de Cangrejo (RA2); Guayacan Nego (RA2); Guayacan Pechiche (RA2); Huacapo (RA2); Huacapu (Peru; Sp.; LOR; RA2); Huacapú (RA2); Huacapú Amarillo (RA2); Huacapú Negro (RA2); Ironwood (Eng.; DAV); Kobakedive (Waorani; SAR); Konbaut (RA2); Makka (RA2); Manu (RA2); Manu Platano (RA2); Manwood (RA2); Minche (RA2); Mincouart (RA2); Naaméhe (RA2); Pechiche (RA2); Puya Caspi (RA2); Puyaqui (RA2); Tomopio (RA2); Urari (RA2); Vacaricuana (RA2); Wamanía (RA2); Wanania (RA2); Yandira (RA2); Yandiroba (RA2); Zujugue (RA2).

#### Activities:

Analgesic (f1; RA2); Anthelmintic (f; RA2); Antiinflammatory (f1; RA2); Antileishmanic (1; JNP63:1295; RA2; X11000043); Antimalarial (f1; JNP63:1295; RA2; X11000043); Antirheumatic (f1; RA2); Antiseptic (f1; RA2); Antitumor (f1; RA2); Antiviral (f1; RA2); Bactericide (1; RA2); Parasiticide (1; RA2); Piscicide (1; SAR); Purgative (f; RA2); Vermifuge (f; RA2); Vulnerary (f; RA2).

#### Indications:

Arthritis (f1; RA2); Bacteria (1; RA2); Cancer (f1; RA2); Cancer, lung (1; RA2); Hepatitis (1; RA2); Herpes (1; RA2); Infection (f1; RA2); Inflammation (f1; RA2); *Leishmania* (1; JNP63:1295; RA2; X11000043); Malaria (f1; JNP63:1295; RA2; X11000043); Pain (f1; RA2); Parasites (f1; RA2); Rheumatism (f1; RA2); Tuberculosis (f; RA2); Tumors (f1; RA2); Viruses (f1; RA2); Worms (f1; RA2); Wounds (f1; RA2).

#### Dosages:

FNFF = ! Fruits edible (DAV; RAR). ½ cup bark decoction 2×/day for malaria (RA2); 5 ml bark tincture/day for cancer and *Leishmania* (RA2); macerate 200 g bark/l alcohol, steep 7–10 days, taking 1 tbsp/day/15 days for rheumatism (RA2).

- Amazon Indians use bark for hepatitis, malaria, tuberculosis, and rheumatism, also as a fish poison (RA2).
- Ecuadorians apply pulverized bark as a poultice on sore kidneys and limbs, and skin problems (RA2).
- Ecuadorians use as anthelmintic, taking bark decoction for hepatitis, herpes, intestinal worms and parasites, lung cancer, malaria, muscle pain, and tuberculosis, applying topically to skin irritations (RA2).

- Peruvians use as purgative, taking bark decoction or infusion for confusion, hepatitis, herpes, leishmaniasis, malaria, and rheumatism, applying externally to cuts and wounds (RA2).
- Quechuans and Waorani (Ecuador) pound bark in water to intoxicate fish (RA2; SAR).

**Downsides:**

None known (RA2). Large dosages are reported to be laxative or purgative (RA2). Bark tinctures or decoctions may cause dark-colored stools which is normal due to the tannins. Outer bark considered “too strong,” therefore inner bark is used in remedies for humans (RA2). As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**Extracts:**

Bark contains minquartynoic acid which has shown cytotoxicity toward human colon, lung, neuroblastoma, and ovarian cancer cell lines as low as 4 mcg/ml (RA2). Minquartynoic acid antimalarial and antileishmanial (JNP63:1295; RA2; X11000043), also exhibited antiviral activity against HIV (2.2 mcg/ml) (RA2). Methanolic bark extract antibacterial against two antibiotic-resistant strains of *Staphylococcus*, as well as *Bacillus* and *Pseudomonas* (RA2).

**TIPO (*Minthostachys mollis* Griseb.) +****LAMIACEAE****Common Names:**

Muña (Sp.; USN); Tipo (Sp.; USN).

**Activities:**

Miticide (X16022288); Mosquitocide (1; X17583499); Repellant (1; X16022288; X17583499).

**Indications:**

Soroche.

**Dosages:**

FNFF = !

**Extracts:**

EO showed repellent properties against several mite species (X16022288) and the mosquito *Aedes aegypti* (X17583499).

**FOUR O'CLOCK (*Mirabilis jalapa* L.) +****NYCTAGINACEAE****Illustrations:**

p 502 (MAX)

**Synonyms:**

*Mirabilis dichotoma* L.; *M. odorata* L.; *Nyctago hortensis* Juss.

**Common Names:**

Abasi (Pun.; DEP); Abhasie (Sin.; DEP; KAB); Akasa Mugri (Kon.; NAD); Andamalligai (Tam.; NAD); Andimandaarai (Tam.; NAD); Anthimalari (Mal.; NAD); Anti Malari (Mal.; DEP); Anti Mantaram (Mal.; WOI); Anti Montaram (Mal.; DEP); Antinarulu (Tam.; KAB); Arrebolera (Mex.; Sp.; EFS; JFM; JTR); Banana (Ma.; JFM); Ban Yen (Thai; EFS); Barka

Gurubands (Tamang; NPM); Batharachi (Tel.; KAB); Beauty of the Night (Eng.; USN); Beijos de Frade (Ma.; JFM); Bel de Nuyi (Creole; Haiti; VOD); Bella de Noche (Sp.; EFS); Bella di Notte (It.; EFS; USN); Belle de Nuit (Fr.; Haiti; Réunion; AVP; EFS; JTR; USN); Bhadrakshi (Tel.; DEP; KAB); Boa Morte (Por.; AVP); Bonina (Brazil; Por.; AVP; RAI); Buenas Tardes (Sp.; EGG; RAR; USN); Bunga Pechat Empat (Malaya; IHB); Bunga Pukul Empat (Malaya; EFS); Bunga Pukul Empat (Malaya; IHB); Bunga Waktu Kechil (Malaya; IHB); Chandra Kantha (Tel.; KAB; NAD); Chandra Malli (Tel.; DEP; KAB); Chandra Mallige (Kan.; DEP; WOI); Clavanilla (Sp.; EGG; RAR); Clavellina (Cuba; Ma.; JFM; JTR); Clavellino (Ma.; JFM); Clavenilla (Peru; EGG); Clavillia (Brazil; RAI); Cuat'or (Ma.; JFM); Dengue (Ma.; JFM); Diego de Noche (Cat.; KAB); Dila Dila (Congo; AVP); Dmaidzi Edzwai Forfori (Ga; KAB); Don Diego de la Noche (Sp.; EFS; EGG; RAR); Don Juan de Noche (Cat.; Mex.; KAB; JTR); Erva de Santa Catarina (Por.; AVP); False Jalap (Eng.; USN); Faux Jalap (Fr.; AVP; EFS); Fleur Admirable (Fr.; KAB); Fleurs de 4 Heures (Fr.; AVP; JTR); Flor de Panama (Sp.; EGG; RAR; SOU); Four O'clock (Eng.; Scn.; AH2; CR2; RAR; USN; VOD); Gecesefase (Tur.; EFS); Gelsomino di Notte (It.; EFS); Gilalas (Tag.; KAB); Guaamboroba (Fanti; KAB); Gubbagi (Guj.; WOI); Gubhaji (Bom.; DEP); Guilalas (Tag.; KAB); Gulabas (Ben.; DEP); Gulabash (Dec.; Hindi; India; DEP; EFS); Gulabbas (Bom.; Hindi; DEP; NAD); Gulamaji (Kan.; DEP); Gul Bansa (Nwp.; DEP); Gulbas (Mar.; KAB); Gulbhaji (Bom.; DEP); Gule Abbas (Hindi; Urdu; DEP; KAB); Gul-i-Abbasa (Iran; DEP; NAD); Herbe de 4 Heures (Haiti; AVP); Herbe Triste (Fr.; KAB); Huo T'an Mu Ts'ao (China; EFS); Isabelita (Sp.; EGG); Jalapa (Peru; RAI); Jalapa Falsa (Sp.; Ven.; EFS; JTR); Jalapenwunderblume (Ger.; EFS); Jalap Flower (Eng.; AVP); Jalap Indigene (Fr.; AVP); Jasmin (Dor.; Sp.; AVP); Jazmin Colorado (Ma.; JFM); Jazmin Corra (Ma.; JFM); Jasmin Rouge (Fr.; KAB); Jazmin de Cafetal (Ma.; JFM); Jazmin Encarnado (Ma.; Ven.; JFM; JTR); Juan de Noche (Cat.; KAB); Kederat (Malaya; IHB); Kembang Pasi Sore (Malaya; IHB); Kembang Pukul Empat (Malaya; IHB); Krishna-Keli (Sanskrit; NAD); Krishno Keli (Ben.; DEP); Krisnakeli (Sanskrit; DEP); Labujana (Tamang; NPM); Langasani (Tamang; NPM); Lankaphul (Nepal; NPM); Lankasoni (Nepal; NPM); Madhyanha Malligay (Kan.; NAD); Malati (Nepal; NPM); Maravilha (Por.; AVP; RAI); Maravilha de Forquilha (Por.; JFM); Maravilla (Cuba; Dor.; Peru; Sp.; AVP; RAI; RyM); Maravilla de Noche (Sp.; KAB); Maritidha (Gurung; NPM); Marvalla del Peru (Sp.; EFS); Marvel of Peru (Eng.; Ocn.; AH2; RAR); Mechoakan Negro (Sp.; EFS); Meraviglia del Peru (It.; EFS); Merveille du Perou (Fr.; AVP; EFS); Misubin (Burma; DEP); Mizubin (Burma; KAB); Morning Rose (Eng.; JFM); Myasu (Burma; DEP); Myoezu (Burma; KAB); Nachtsschone (Ger.; AVP); Nakajala (Gurung; NPM); Nonnannhwaran (Twi; KAB); Nyctage du Perou (Haiti; AVP); Nyctage Faux Jalap (Fr.; KAB); Oracion (Pi.; KAB); Pasana (Sp.; EFS); Pasanya (Ma.; JFM); Patarrashu (Tam.; DEP; NAD); Pattarachi (Tam.; KAB); Pattarashu (Tam.; KAB); Rhubarb Blanche (Haiti; AVP); Sable Flag (Eng.; EFS); Sandhyakela (Sanskrit; EFS; KAB); Sandhya-Raga (Sanskrit; NAD); Sanja Mallige (Kan.; DEP; WOI); Sanjimallige (Kan.; KAB); Sankani (Fanti; KAB); Sarpamani (Ben.; WOI); Scamonee d'Amérique (Haiti; AVP); Segerat (Malaya; IHB); Sendrikka (Sin.; KAB); Serojo (Java; EFS); Shab el Bili (Arab.; EFS); Shahelleilli (Arab.; KAB); Siciliana (Pr.; Sp.; AVP; JTR); Sindrikagaha (Sin.; KAB); Sindrika Gaha (Sin.; DEP); Suspiros (Pi.; KAB); Tabaquilla (Ma.; JFM); Tche Kia Hoa (China; KAB); Trompetillas (Sp.; EGG; RAR); Trompetillo (Mex.; JFM; JTR); Tutsuy-Xiu (Ma.; Mex.; JFM; MAX); Tzu Mo Li (China; EFS); Vanimpolera (Hova; KAB); Vier Uur (Dutch; Ma.; EFS; JFM); Vieruursbloem (Dutch; Ma.; JFM); Voampolera (Hova; KAB); Vonimpolera (Hova; KAB); Zahr Ul Ajl (Arab.; DEP; KAB); Zahr Ul Ajul (India; EFS); Zi Mo Li (Pin.; AH2); Zi Mo Li Gen (Pin.; DAA).

### Activities:

Abortifacient (1; RAI); Alterative (f; DAW); Antiabortive (f; JFM); Antiinflammatory (f; KAB); Antiseptic (f1; X8843942); Antispasmodic (1; RAI); Antiviral (1; RAI; X1482397);

Aperient (f; DEP); Aphrodisiac (f; NPM); Bactericide (1; RAI); Candidicide (1; X1277746); Carminative (f; DAW; VOD); Cathartic (f; DAW); Cicatrizant (f; VOD); Digestive (f1; RAI); Diuretic (f; DAW; EGG; RAI; RAR); Fungicide (1; RAI; X1277746); Hemostat (f; JFM); Hydragogue (f; DAW; EFS); Laxative (f; JFM; RAI); Neurotoxic (1; RAI); Parasiticide (1; RAI); Purgative (f; JFM; NAD; RAR; VOD); Ribosome-Inactivator (1; X1482397); Sialagogue (1; WOI); Stomachic (f; DAW; VOD); Suppurative (f; DEP; NAD); Tonic (f; DAW; DEP); Uterotonic (1; RAI); Vermifuge (f; DAW; EFS); Vulnerary (f; VOD).

### Indications:

Abortion (f; JFM); Abscesses (f; DAW; DEP; NPM); Acne (f; DAW); Arthrosis (f; RAI); Bacteria (1; RAI; X1719209); Bleeding (f; JFM); Blisters (f; SKJ); Boils (f; DAW; DEP; NPM); Bruises (f; DAW; DEP; JFM; NAD); Bubo (f; NAD); Burns (f; RAI); Cancer (f; DAW; JLH); *Candida* (1; RAI; X11277746); Carbuncles (f; NAD); Chagas (f; RAI); Childbirth (f; RAI); Colds (f; RAI); Colic (f; JFM; RAI); Conjunctivitis (f; JFM; RAI); Constipation (f; DEP; JFM; MAX; RAI); Dermatitis (f; JFM; RAI); Diabetes (f; DAW); Diarrhea (f; JFM; NPM); Dropsy (f; DAW; NPM); Dysentery (f; JFM; RAI); Dysmenorrhea (f; NPM; RAI); Dyspepsia (f; NPM; VOD); Dysuria (f; RAI); Earache (f; JFM; RAI); Eczema (f; RAI); Edema (f; JFM; RAI); Enterosis (f; JFM; RAI); *Escherichia* (1; X1719209); Fever (f; JFM); Flu (f; RAI); Fracture (f; RAI); Freckles (f; RAI); Fungus (f1; JFM; RAI; X1277746); Gas (f; DAW; RAI; VOD); Gonorrhea (f; RAI); Headache (f; RAI); Hepatitis (f; DAW; RAI; VOD); Herpes (f; DAW; RAI); Hives (f; RAI); Hypochondria (f; DAW; RAI); Impotence (f; NPM); Infection (f1; RAI; X1277746; X1719209; X8843942); Inflammation (f; DAA; JFM; KAB); Itch (f; DAW; NAD); Leprosy (f; RAI); Leucorrhea (f; DAA; JFM); Mycosis (f; JFM; RAI; X1277746); Myosis (f; NPM); Otitis (f; JFM); Pain (f; RAI); Parasites (1; RAI); Parotitis (f; RAI); Respiritis (f; RAI); Ringworm (f; JFM; RAI); Scabies (f; NPM); Scrofula (f; RAI); Sores (f; DAW; DEP; JFM; KAB); Spasms (f1; RAI); Splenitis (f; DAW; RAI); Sprains (f; VOD); Strain (f; DAW); Swelling (f; JFM; NPM); Syphilis (f; JFM); Thrush (f; RAI); Tumors (f; RAI); Urogenitis (f; RAI); Urticaria (f; NAD); Uteritis (f; JFM); Vaginosis (f; RAI); VD (f; JFM); Viruses (1; RAI; X1482397; X1719209); Whitlow (f; JLH; KAB); Worms (f; DAW; RAI; VOD); Wounds (f; DAW; NAD; RAI; VOD); Yeast (1; RAI; X1277746).

### Dosages:

FNFF = ! Tender leaves cooked and eaten (NPM). 8–10 g root as purge (JFM); ½ cup root tea 2×/day (RAI); 1–2 ml 4:1 root tincture 2×/day (RAI); 1 g capsule/tablet 2×/day (RAI).

- Brazilians take for bruises, *Candida*, Chagas, colic, constipation, dermatitis, diarrhea, dysentery, earache, eczema, edema, enterosis, freckles, hepatitis, herpes, hives, itch, leukorrhea, oliguria, pain, parasite, syphilis, vaginosis, worms, and wounds (JFM; RAI).
- Cubans take for herpes and intestinal parasites (RAI).
- Curaçaoans apply leaf juice to eye inflammation (JFM).
- Guatemalans use for abscesses, boils, bruise, conjunctivitis, dermatoses, gonorrhea, inflammation, mucositis, mycoses, ringworm, scrofula, sores, vaginosis, and wounds (RAI).
- Haitians apply vinegar leaf macerate to sprains; greased leaves as cicatrizant vulnerary (VOD).
- Haitians take flower infusion as carminative and stomachic (VOD).
- Haitians take root decoction as purgative and vermifuge, and for hepatitis (VOD).
- Kayapo of Brazil sniff dried flowers for headache, washing dermatitis, leprosy, and wounds with the root decoction (RAI).
- Mexicans suggest 8–10 g root as purgative, the ground root for bruises and strains, using also for dysentery, stings, vaginosis, and wounds (JFM; MAX; RAI).

- Nepalese take 4 tsp root juice 2×/day for diarrhea or fever, 3 tsp 2×/day for dyspepsia (NPM).
- Peruvians suggest root decoction as diuretic and vermifuge, using the plant also for constipation, dermatitis, earache, herpes, and oliguria (EGG; RAI).
- Shipibo-Conibo of Peru use floral baths for colds and flu (RAI).
- Venezuelans apply the expressed floral juice to earache, eczema, and herpes (JTR).

#### Downsides:

Not covered (AHP; KOM; PH2). Abortifacient, neurotoxic, and purgative activities dictate caution. Not recommended during pregnancy (RAI). As of July 2007, the FDA Poisonous Plant Database listed 28 titles alluding to toxicity of this species.

### BAYBERRY (*Morella cerifera* (L.) Small) + MYRICACEAE

#### Synonyms:

*Myrica cerifera* L. (basonym); *M. cerifera* var. *pumila* Michx.; *M. pumila* (Michx.) Small; fide (USN).

#### Notes:

Taxonomists may rarely have trouble distinguishing *Myrica cerifera*, *M. gale*, and *M. pennsylvanica* but I suspect herbalists and collectors may mix them on occasion. Even biermeisters may get them confused. But Austin (2004) reminds us to remember next time we drink European beers that the head is probably due to *Myrica*. He also notes that flocks of tree swallows, normally insectivorous in summer, would funnel down in fall and winter and strip the wax myrtles of their berries (AUS). Rafinesque, an eccentric MD, circa 1839, said that all species were equivalent from the medicinal point of view (CEB).

#### Common Names:

Albero della Cera (It.; EFS); American Candelberry (Eng.; EFS); Arbol de Cera (Dor.; Mex.; AUS); Arbre à Cire (Fr.; USN); Arbre a Suif (Canada; Fr.; AUS); Arraigán (Cuba; JTR); Arrayán (Pr.; Sp.; JTR; USN); Audul-Barg (Arab.; EFS); Azuri (Arab.; EFS); Bayberry (Eng.; JTR; USN); Box Myrtle (Eng.; EFS); Caca Ravet (Guad.; Mart.; AUS); Candleberry (Eng.; AUS; USN); Candleberry Myrtle (Eng.; AUS); Cera Vegetal (Ca.; Sp.; AUS; USN); Cerero (Pr.; AUS; JTR); Cerier (Houma; AUS); Cérier de la Louisiane (Fr.; EFS); Chac Chuone em Ochopee (Mikasuki; AUS); Cirier de la Louisiane (Fwi.; AUS; JTR); Cowā:Nóçâ:Pî (Seminole; AUS); Darshishaan (Iran; EFS); Gua-Ut (Ma.; JFM); Hungwekilo (Choctaw; AUS); Ito Hakchomma (Alabama; AUS); Ittokillo (Koasati; AUS); Kaiphal (India; EFS); Kandula (Iran; EFS); Katphala (Sanskrit; EFS); Louro-Bravo (Por.; USN); Maru Tam Toli (Malaya; EFS); Mickleberry (Eng.; AUS); Mirika (Tur.; EFS); Mirte (Ger.; EFS); Muckle (Eng.; AUS); Muckleberry (Eng.; AUS); Mum A- (Tur.; EFS); Myrte (Fr.; EFS); Myrtle (Bel.; AUS); Palo de Cera (Dor.; AUS); Perico (His.; AUS); Planta Della Cera (It.; EFS); Sause Bastard (Bel.; AUS); Soli:Capî (Creek; AUS); Southern Bayberry (Eng.; FAC; USN); Southern Wax-Myrtle (Eng.; USN); Sweet Myrtle (Eng.; AUS); Tallow Shrub (Ma.; JFM); Tea-Bark (Bel.; Eng.; AUS); Tea-Box (Bel.; Eng.; AUS); Tiguapén (His.; AUS); Wachsbeerbaum (Ger.; USN); Wachsbeerenstrauch (Ger.; EFS); Wachsbusch (Ger.; AUS); Wachsgagle (Ger.; AUS); Wachsmyrte (Ger.; USN); Wasgagel (Dutch; EFS); Waxberry (Eng.; JTR; USN); Wax Myrtle (Eng.; FAC; JTR; USN); Wax Tree (Eng.; AUS); Wax Wood (Jam.; AUS); Wild-Tea (Eng.; AUS).

**Activities:**

Alterative (f; CRC); Analgesic (f1; AUS; DEM; FNF); Anthelmintic (f; DEM); Antiinflammatory (f1; APA; AUS); Astringent (1; FAD; PED; PHR; PH2); Bactericide (1; PED); Carcinogenic (f; APA; JFM); Cardiostonic (f; CRC; JFM); Choleric (1; APA); Circulatory Stimulant (f; CAN); Deobstruent (f; CRC); Depurative (f; DEM); Diaphoretic (1; CAN; CRC; PHR; PH2); Diuretic (f; CEB); Emetic (f; APA; FAD; FEL; CAN; PH2); Errhine (f; CEB); Expectorant (f; APA; CEB); Febrifuge (1; APA; CAN); Insecticide (f; CEB); Insectifuge (1; CEB); Laxative (f; CRC); Mineralcorticoid (1; APA); Narcotic (f; CEB; CRC; FEL); Protosticide (1; APA); Purgative (1; PED); Sialagogue (1; CEB; PED); Spermicide (1; APA); Sternutatory (f; CRC); Stimulant (f; CEB; CRC; FEL; JTR; PED; PHR; PH2; PNC); Stomachic (f; CEB; CRC); Sudorific (f; CRC); Tonic (f; APA; EFS); Vermifuge (f; DEM).

**Indications:**

Adenopathy (f; CRC); Alopecia (f; CEB); Amenorrhea (f; FEL); Backache (f; CRC); Bacteria (1; PED); Bites (f; CEB); Bleeding (f; CEB); Boils (f; CEB; CRC); Bronchosis (f; MAD); Cancer (f; CRC; JLH); Canker (f; CRC); Carbuncles (f; CRC); Cardiopathy (f; JTR); Catarrh (f; FAD; FEL; MAD); Childbirth (f; AUS); Chills (f; FAD); Cholera (f; CEB; CRC); Colds (f; CAN; FAD; PHR; PH2); Colic (f; CEB); Colitis (f; APA; CAN); Congestion (f; APA); Constipation (f1; CRC; PED); Coughs (f; PHR; PH2; PNC); Cramps (f; FEL); Dermatitis (f; PED; PHR; PH2); Diarrhea (1; APA; CAN; CRC; FEL); Dry Mouth (1; PED); Dysentery (f; CRC; FAD; JFM; JTR); Dysmenorrhea (f; CRC); Dyspepsia (f; MAD); Enterosis (f; MAD); Epistaxis (f; CEB); Fever (1; APA; CAN; FAD; MAD); Fistula (f; FEL); Flu (f; APA); Gallstones (f; MAD); Gastrosis (f; DEM; FAD); Gingivitis (1; APA; FEL); Goiter (f; CRC); Gravel (f; MAD); Headache (f; CEB; CRC; DEM; MAD); Hematochezia (f; CRC); Hematoptysis (f; CRC); Hemorrhoids (1; APA); Hepatitis (1; APA; CRC; MAD); Hysteria (f; CEB); Infection (1; PED); Inflammation (f1; APA; AUS; DEM); Itch (f; CEB; FAD); Jaundice (f; CRC; FAD; JFM; MAD); Lethargy (f; APA; PED); Leukorrhea (f; CAN; CRC; FAD; FEL; MAD); Metrorrhagia (f; CEB; CRC); Mucositis (f; APA; CAN; MAD); Oliguria (f; AUS); Pain (f1; AUS; DEM; FNF); Palsy (f; CEB); Parasites (1; APA); Pharyngitis (f; CRC; MAD); Polyps (f; CRC; JLH; PED); Poor Circulation (f; CAN); Pyorrhea (f; CRC); Rheumatism (f; DEM); Rhinitis (f; JLH); Scarlet Fever (f; CRC; FEL); Scrofula (f; CRC; FAD; FEL; PED); Sores (f; CRC; FEL; JTR; PHR); Sore Throat (f1; APA; CAN; CRC; FEL); Stomachache (f; DEM); Stomatitis (f1; CRC; FEL; MAD; PED); Stones (f; MAD); Swelling (f; CEB); Tonsillitis (f; DEM); Toothache (f; CEB); Typhoid (f; CRC; FEL); Ulcers (f; APA; CRC; PH2); Uteritis (f; CEB; CRC); Vaginosis (1; APA); Varicosities (f; APA; CRC); Worms (f; AUS; DEM).

**Dosages:**

FNFF = ! Aromatic berries eaten raw, candied, or fermented, and used as substitute for bay leaves to spice meats, soups, stews, and seafood, also make a robust tea (FAC). 2–4 fl oz leaf or bark (FEL); 1–3 tbsp fresh bark (PED); 1.5–3 g dry bark (PED); 2 g dry bark:10 ml alcohol/10 ml water (PED); 1–4 g powdered bark (PNC); 20–30 grains powdered bark (FEL); 0.6–2 g powdered bark infusion or decoction, 3×/day (CAN); 2–4 ml liquid bark extract (PNC); 0.6–2 ml liquid extract (1:1 in 45% ethanol) 3×/day (CAN); 405–475 mg capsules (PH2).

- Cubans use the plant for dysentery and heart problems (JTR).
- Mexicans use the berry decoction for dysentery, the wax for diarrhea and jaundice (JFM).
- Micmac use as analgesic, diuretic, emetic, and febrifuge, for headache, inflammation, tonsillitis, and worms (AUS).
- Puerto Ricans use bark or root bark on obstinate sores (JFM).

**Downsides:**

Class 1 (AHP). None known (PHR). Not covered (KOM). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages”



(PH2). Do not take (APA). Newall, Anderson, and Phillipson (1996) report that bayberry is carcinogenic to rats. "Canadian regulations do not allow bayberry as a non-medicinal ingredient for oral use products" (Michols, 1995). Wax irritating, reportedly carcinogenic (FAD). With reported carcinogenic and mineralcorticoid activity, bayberry should be avoided during pregnancy and lactation (CAN). May cause nausea and vomiting in large doses. Large doses may cause mineralcorticoid side effects (high blood pressure, sodium retention, water retention). Use of this herb can deplete potassium in the body, leading to high blood pressure and edema. Should not be used by persons with high blood pressure, edema, kidney disease, congestive heart failure, gastrointestinal conditions, and/or sodium/potassium imbalance without first consulting a doctor. Contains myricitrin, an antibiotic that promotes sweating, which can reduce fever. Used to alleviate fever and diarrhea. Stimulates the flow of bile. Bayberry contains a high proportion of tannins and should not be used if there is a history of cancer. Some laboratory studies have shown tannins may promote cancer (TMA). (Note it is tannins that are also being promoted for cancer prevention in teas; make up our minds.) As of July 2007, the FDA Poisonous Plant Database listed 10 titles alluding to toxicity of this species.

#### Extracts:

Triterpenes sapogenins may have purgative stimulus; flavonoids antibacterial (PED). Myricadiol has mineralcorticoid activity and myricitrin bactericidal, choleric, protisticidal, and spermicidal activities (CAN; PNC). Tannins and phenols from bark reported carcinogenic in rats when injected; but phenol and tannins orally have reported "anti-tumor promoting activity" (PNC).

## NONI (*Morinda citrifolia* L.) +++

### RUBIACEAE

#### Illustrations:

p 519 (L&W); p 655 (AHL); pl 506 (KAB)

#### Common Names:

Aal (Bom.; Kon.; Mar.; KAB); Abri (Bom.; KAB); Ach (Ben.; Hindi; KAB); Achchuka (Sanskrit; KAB); Achhu (Ben.; Oriya; KAB); Achuka (Sanskrit; NAD); Ahugaha (Sin.; KAB); Aich (Ben.; KAB); Ainche (Bom.; KAB); Ainshi (Kan.; KAB); Ak (Hindi; KAB); Al (Bom.; Dec.; Guj.; India; Mar.; KAB); Alan (Bom.; KAB); Alita (Mah.; NAD); Al Saraoji (Guj.; DEP); Ashyuka (Sanskrit; KAB); Aval (Bom.; KAB); Baga (Dom.; AVP); Bangkudu (Vis.; KAB); Bankudo (Pi.; Tag.; Vis.; KAB); Baratindiala (Mah.; NAD); Barraal (Hindi; DEP; KAB); Bartondi (Mar.; KAB); Bartundi (Bom.; Hindi; Mar.; KAB); Bengkudu (Malaya; IHB; POR); Bengkudu Daun Besar (Malaya; POR); Bengkudu Laki-Laki (Malaya; POR); Bois Douleur (Fr.; Haiti; AVP; USN); Bois Tortue (Seychelles; KAB); Bomboue (Soussou; KAB); Buku Bendam (Malaya; IHB); Bunyuela (Sunda; IHB); Bwa Doule (Creole; Haiti; VOD); Canary Wood (Aust.; Eng.; POR); Chengkudu (Malaya; IHB); Coca (Dom.; AVP); Douleur (Haiti; AVP); Feuille Douleur (Haiti; AVP); Fèy Doule (Creole; Haiti; TRA; VOD); Fromagier (Haiti; AVP); Fruta del Diablo (Sp.; AHL); Gaiu (Ic.; KAB); Garba (Fula; KAB); Gardenia Hedionda (Pr.; AVP); Gondhonagi (Kan.; KAB); Hai Ba Ji (China; POR); Haladi Pavate (Kan.; KAB; NAD); Hardikath (Nepal; KAB); Hueva de Reuma (Dom.; AVP); Huldikung (Lepcha; KAB); Huldikunj (Ben.; KAB); Hurdi (Ben.; KAB); Indian Mulberry (Eng.; Scn.; AH2; CR2; POR; USN; VOD); Kadappilavu (Mal.; NAD); Kakapazham (Mal.; AUS); Kattapitalavam (Mal.; KAB); Kedudu (Malaya; IHB); Kemudu (Java; IHB); Kudu (Java; IHB); Lada (Guam; JAD); Large-Leaved Morinda (Eng.; POR); Lino (Vis.; KAB); Luo Ling (China; Singapore; Taiwan; POR); Maddi (Kan.; Tel.; KAB); Maddichettu (Tel.; NAD; POR); Makad-

phal (Kon.; NAD); Manjanatti (Tam.; KAB); Manjatbavattai (Tam.; KAB); Manjé Koshon (Creole; Haiti; VOD); Mannanatti (Mal.; KAB); Mannapavatta (Mal.; KAB); Manzana de Puerto Rico (Dor.; AHL); Manzanilla (Dor.; AHL); Mekudu (Sumatra; IHB); Mengkoedoe (Dwi.; JFM); Mengkudu (Malaya; IHB; POR); Mengkudu Besar (Malaya; IHB); Mengkudu Jantan (Malaya; IHB); Mengkudu Laut (Malaya; IHB); Mhanbin (Burma; KAB); Minamaram (Tam.; DEP; NAD); Mogali (Tel.; KAB); Molagha (Tel.; POR); Molugu (Tel.; KAB); Mora de la India (Sp.; POR; USN); Mulgul (Kan.; KAB); Mulugfu (Tel.; MPI); Munja Pavattai (Tam.; DEP); Munja Pavattay (Tam.; POR); Nagakuda (Bom.; KAB); Nagakunda (Mar.; DEP; KAB); Ngao (Ic.; KAB); N'Garba (Fula; KAB); Nhau (Ic.; KAB); Nhau Nui (Ic.; KAB); Niehpahsae (Burma; DEP; KAB); Nigua (Dor.; AHL); Nino (Tag.; Vis.; KAB); Noni (Eng.; Haw.; Pr.; AVP; CR2; L&W; POR; USN; VOD); Nono (Fr.; Tahiti; JAD; POR); Nonu (Eng.; Samoa; POR); Nuna (Tam.; KAB; NAD); Nyahgyi (Burma; KAB); Ouanda (Malinke; KAB); Pacel (Malaya; POR); Pache (Java; IHB); Pain-Killer (Eng.; AVP; L&W; VOD); Pain Killer Tree (Car.; Eng.; POR); Pau Azeitona (Por.; USN); Pemmy (New Cladonia; KAB); Periyannuna (Tam.; KAB); Pinya de Puerco (Dom.; AHL; AVP); Pinya de Puerto (Dor.; L&W); Pinyecla (Dom.; AHL; AVP); Rhubarbe Caraibe (Guad.; AVP; L&W); Rotten Cheese Fruit (Aust.; Eng.; USN); Rouch (Ben.; KAB); Saraoji (Guj.; KAB); Seyal (Tam.; KAB); Surangi (Ben.; Guj.; Mar.; KAB); Tagase (Kan.; KAB); Tagatemara (Kan.; NAD); Tagatse Mara (Kan.; MPI); Takote (Tulu; KAB); Togari (Madras; DEP); Togaru (Tel.; KAB; MPI); Togarumogali (Tel.; KAB); Tombongaso (Pi.; KAB); Tunaon (Tam.; NAD); Tunavu (Tam.; NAD); Tunnavu (Tam.; KAB); Uanda (Sudan; KAB); Vellainuna (Tam.; KAB); Wild Pine (Ma.; JFM); Wu Ning (China; Singapore; POR) Yahugaha (Sin.; DEP; KAB); Yaiyae (Burma; KAB); Yamabe Aoki (Japan; TAN); Yaw (Thai; IHB); Yeíawa Haráchan (Garifuna; Nic.; EB50:71).

### Activities:

Analgesic (f1; AHL; HAD; MPI; TRA; VOD; X12466051; X1981810); Anthelmintic (f; X12466051); Antiangiogenic (1; X14739620); Antiarthritic (1; TRA); Anticancer (1; X11795436; X14739620; X14669249; X16619339); Anticancer, breast (1; X16619339); Anticarcinogenic (1; X11795436); Antifatigue (1; X17604369); Antihypertensive (1; HAD); Antiinflammatory (f1; X12576199; X12466051; X17480098); Antioxidant (1; X15366830; X15844957; X11795436; X17127467); Antiproliferant (1; X16619339); Antirheumatic (1; TRA); Antisarcotic (1; X14669249); Antispasmodic (1; HAD; MPI); Antitubercular (1; X12410555); Antitumor (1; X11795436; X14669249; X14739620; X16619339); Antiviral (f; X12466051); Anxiolytic (1; X17561385); AP-1-Inhibitor (1; X12757717; X11479211; X11348221); Apoptotic (1; X14739620); Ascaricide (1; TRA); Bactericide (1; MPI; X12466051; X16883283); Bradycardiac (1; MPI); Cathartic (f; SKJ; WOI); Cyclooxygenase Inhibitor (1; X12576199); Cytotoxic (1; X16619339); Deobstruent (f; DEP; KAB; NAD); Depurative (f; PH2); Diuretic (f; HHB); Emetic (f; KAB); Emmenagogue (f; DEP; IHB; KAB); Emollient (f; KAB); Ergogenic (f1; X17604369); Febrifuge (f; DEP; HHB; NAD; WOI); Fungicide (1; FNF; X12466051); Hepatotoxic (1; X16094725); Hypotensive (f1; X12466051); Immunomodulator (1; X14669249); Immunostimulant (f; X12466051); Laxative (1; FNF; IHB; KAB); Lipoxigenase Inhibitor (1; X17378609); Litholytic (f; HHB); NO-Scavenger (1; X15383230); Quinone Reductase Inducer (1; X16378361); Sedative (f1; KAB; X17561385; X1981810); Stomachic (f; KAB); Tonic (f; DEP; HHB; WOI); Vasopressor (1; MPI);

### Indications:

Ague (f; IHB); Amenorrhea (f; IHB); Anxiety (1; X17561385); Arthrosis (f1; JFM; TRA; VOD); Aspergillosis (1; X16710899); Asthma (f; HAD; HHB; KAB); *Bacillus* (1; MPI); Bacteria (f1; X12466051; X16883283); Burns (f; EB50:71); Cancer (1; HAD; X11795436; X14669249; X14739620; X16619339); Cancer, breast (1; X11795436; X16619339); Candidia (1; X16710899); Cardiopathy (f; JFM); Colds (f; IED; L&W); Colic (f; HHB; IHB); Constipation (1; FNF; IHB; KAB); Convulsions (1; IHB; MPI); Coughs (f; IHB); Cramps (1;

HAD; MPI); Diabetes (f; IHB; PH2); Diarrhea (f; HHB; KAB); Diphtheria (1; MPI); Dysentery (f; HHB; SKJ; WOI); Dysmenorrhea (f; HHB; WOI); Dysuria (f; HAD; IHB); Enterosis (f; JFM); *Escherichia* (1; MPI); Fatigue (f1; X17604369); Fever (f; DEP; HHB; NAD; PH2; WOI); Fungus (f1; FNF; X12466051); Gallstones (f; HHB); Gargantosis (f; WOI); Gastrosis (f; JFM; PH2; X17319624); Gingivosis (f; DEP; NAD; WOI); Gout (f; HHB; MPI; NAD; SKJ; VOD; WOI); Headache (f1; AHL; FNF; IED; JFM); Head Colds (f; L&W); Heart (f; JFM); Hepatosis (f; JFM); High Blood Pressure (f1; HAD; X12466051); Immunodepression (f; X12466051); Infection (f1; FNF; MPI; X12466051; X16883283; X17319624); Inflammation (f1; X12466051; X17319624; X17480098); Insomnia (f1; KAB; X17561385; X1981810); Leukorrhea (f; IHB; SKJ; WOI); *Micrococcus* (1; MPI); Mycosis (f; X12466051); Nausea (f; IHB); Nervousness (1; X17561385; X1981810); Neuralgia (f1; FNF; IED; L&W); Pain (f1; AHL; EB50:71; HAD; IED; JFM; MPI; TRA; VOD; X12466051; X1981810); Rheumatism (f12; JFM; TRA; VOD); *Salmonella* (1; MPI); Sapræmia (f; IHB; WOI); Sarcoma (1; X14669249); Smallpox (f; IHB); Sore Throat (f; NAD; SKJ); Splenosis (f; IHB); Sprains (f; VOD); Stomachache (f; PH2); Stones (f; HHB); Stress (1; X17561385); Swelling (f; L&W); Tuberculosis (1; MPI; X12410555); Tumors (1; X11795436; X14669249; X14739620; X16619339); Ulcers (f; WOI); Ulcers (mouth) (f; X17319624); *Vibrio* (1; MPI); Viruses (f; X12466051); Worms (f; X12466051); Wounds (f1; AHL; DEP; HHB; NAD; VOD; X17319624).

### Dosages:

FNFF = !! Unripe fruits curried and pickled; ripe fruits eaten as is or preserved in syrup; young leaves and blanched shoots eaten raw, curried, or steamed (FAC; TAN). Ripe fruits, which smell of roquefort cheese, are favored by Burmans (DEP). Dan Austin (2004) recounts that the American cheese (*Morinda royoc*) has many of the same folk uses as the Asian noni; 2–4 tbsp.

- Caicos Islanders gargle with leafy stem for sore throat (JFM).
- Caicos Islanders take salted root decoction for dyspepsia (JFM).
- Cubans take powdered root as laxative or purgative (JFM).
- Cubans take root for dysmenorrhea and impotence (JFM).
- Curaçaoans take root decoction for diarrhea, the leaf decoction for VD (JFM).
- Dominicans rub leaves with a soft candle and apply to rheumatic joints (VOD).
- Haitians apply leaves topically for pain, e.g., rheumatic, and the bark macerate to sprains (VOD).
- Haitians use the leaf juice for gout and sores (VOD).
- Jamaicans boil the root with *Smilax* roots as a blood tonic (JFM).
- Nicaraguan Garifuna poultice leaves on aches, burns, and pains (EB50:71).
- Polynesians consider ergogenic, for promoting endurance (X17604369).
- Polynesians use for bowel disorders, infection, mouth ulcers, skin inflammation, and wounds (X17319624).

### Downsides:

Not covered (AHP; KOM; PHR). “No health hazards are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). But they designate no dosage (JAD)! I could do it the lazy way and just say “None reported.” And since it is a food species I could live with that. TRAMIL notes that fruits and leaves are edible (TRA). No hepatotoxicity with consumption of noni juice (X17286240; X16773722). Cases of hepatotoxicity/hepatosis reported with use of noni juice (X16837801; X16773722; X16094725). Most likely hepatotoxic components are anthraquinones; noni juice potentially hepatotoxic (X16094725). A case of chronic renal insufficiency reported; noni may be source of surreptitious potassium in patients with renal disease (X10676732). Roots contain genotoxic anthraquinones; fruit juice had only slight mutagenic effect in animal tests (X17227089). As of July 2007, the FDA Poisonous Plant Database listed eight titles alluding to toxicity of this species.

**Extracts:**

Fruit powder inhibited COX-1 (IC<sub>50</sub> = 163 µg/ml); aspirin and indomethacin have IC<sub>50</sub> of 241 and 1.2 µg/ml (X12576199). Tests for uterotonicity were negative. LD<sub>50</sub> (root bark extract) = 750 mg/kg ipr mus (MPI), LD<sub>50</sub> (hydromethanolic leaf extract) = 1,000 mg/kg ipr rat (TRA). Mice given noni juice orally scored higher than control mice in both swim test (36–45%) and rotarod tests (59–128%) (X17604369). Methanol crude fruit extract showed significant affinity to the gamma-aminobutyric acid A (GABA) inhibitory neurotransmitter receptors (X17561385). Methanolic fruit extract antiinflammatory (ID<sub>50</sub> = 0.46–0.79 mg/ear/ms) and moderately inhibited EBV-early antigen activation induced by TPA (IC<sub>50</sub> = 386–578 mol ratio/32 pmol TPA) (X17480098). Eight compounds isolated from the fruit inhibited 5-*a*/15-lipoxygenase (IC<sub>50</sub> = 0.43–16.5 µM) (X17378609). Fruit juice significantly reduces blood sugar levels and speeds wound healing in diabetic rats (X17319624). Hydroalcoholic extract shows strong oxygen superoxide scavenging activity (X17127467). Reported for the first time, an anthraquinone isolated from the fruit, 2-methoxy-1,3,6-trihydroxyanthraquinone, was shown to be an extremely potent quinone reductase inducer, nearly 40 times more potent than the positive control, 1-sulforaphane, and showed no noticeable cytotoxicity even at highest dose tested (X16378361). Noni juice was shown to inhibit angiogenic initiation and disrupt newly established human vascular networks in human placental vein and human breast tumor explants; at 5% (vol/vol) or greater was highly effective at inhibiting initiation of new vessel sprouts and at 10% was able to induce vessel degeneration and apoptosis in established capillary networks within days of application and also effectively inhibited capillary initiation. In tumor explants that did show capillary sprouting, the vessels rapidly degenerated in 2–3 days (X14739620). An immunomodulatory polysaccharide-rich substance (Noni-ppt) from the fruit juice showed synergistic or additive beneficial effects when combined with a broad spectrum of chemotherapeutic drugs, including adriamycin, bleomycin, camptothecin cisplatin, etoposide, mitomycin-C, 5-fluorouracil, or vincristine, but was not beneficial when combined with cytosine arabinoside, paclitaxel, or immunosuppressive anticancer drugs such as cyclophosphamide, methotrexate, or 6-thioguanine (X14669249).

**VELVETBEAN (*Mucuna pruriens* (L.) DC.) ++****FABACEAE****Illustrations:**

pl 317B (KAB)

**Synonyms:**

*Dolichos pruriens* L.; *Mucuna aterrima* (Piper & Tracy) Holland; *M. deeringiana* (Bort) Merr.; *M. nivea* (Roxb.) DC.; *M. prurita* Hook.; *M. utilis* Wall. ex Wight; *Stizolobium deeringianum* Bort.; *S. hassjoo* Piper & Tracy; *S. pruriens* (L.) Medik.

**Notes:**

One of the main ingredients in the Haitian zombie poisons, containing psychomimetic constituents (VOD). According to Taylor (2005), one Parkinson's patient was given velvet bean instead of pharmaceutical l-dopa for 12 years and it slowed progression and had fewer side effects.

**Common Names:**

Abakwa (Congo; AVP); Abapa (Congo; AVP); Achariyapalbe (Sin.; DEP); Achariyapalle (Sin.; POR); Akolshi (Ben.; DEP); Alkushi (Ben.; WOI); Alkusi (Ben.; Kol.; DEP; KAP); Atmagupta (Ayu.; Sanskrit; AH2; DEP; OFF); Baidhok (Guj.; Hindi; SKJ); Bengaali Rasvauba (Estonia; POR); Bengal Bean (Eng.; POR; RAI); Bichchoti (Ben.; WOI); Buffalo Bean (Eng.; Ocn.;

AH2; RAI); Cabeça de Frade (Por.; AVP; RAI); Cadjuet (Fr.; GMH); Café de Mato Grosso (Ma.; JFM); Chican (Belize; BNA); Chiican (Ma.; JFM); Chiikan (Ma.; JFM); Chiporo (Ma.; Sp.; JFM; POR); Chipororo (Ma.; JFM); Chiporro (Sp.; RAI); Chorivalli (Mal.; NAD); Ci Gu (Akha; EB40:38); Ci Mao Li Dou (China; POR); Common Cowitch (Eng.; WOI); Cowage (Eng.; Ocn.; AH2; CR2; WOI); Cowhage (Eng.; RAI); Cowitch (Eng.; Ocn.; AH2; CR2; RAI); Dau Meo (Vn.; POR); Dolibo Pizzicaule (It.; AVP); Dulagondi (Tel.; WOI); Etká (San.; WOI); Fagiolo de Rio Negro (It.; EFS); Fagiolo Vellutato (It.; POR); Fava Café (Brazil; MPB); Fava Coceira (Brazil; RAI); Fave de Café (Por.; JFM); Feijao Café (Brazil; MPB); Feijao de Café (Por.; JFM); Floeijlsboenne (Den.; POR); Fløijlsbrønne (Den.; POR); Florida Velvet Bean (Eng.; POR); Fluweelboon (Dutch; POR); Fogarate (Dor.; AHL); Frijol Terciopelo (Sp.; POR); Fuki Mame (Japan; TAN); Gaunch (Hindi; POR); Goncha (Hindi; Nwp.; DEP; WOI); Gourou (Congo; AVP); Gou Zhua Dou (China; POR); Guacanare (Sp.; JFM); Gugli (Pun.; WOI); Guisante Negro (Sp.; POR); Gunchgaji (Pun.; DEP); Guzano de Pico Pico (Sp.; JFM); Haba Terciopelo (Sp.; POR); Hasagunnigida (Kan.; WOI); Hasshou Mame (Japan; POR); Hatsusho-mame (Japan; KAP); Hellfire Bean (Eng.; POR); Hub ul Kulai (Iran; EFS; KAP); Hulim (Bel.; BNA); Khatkuli (Kon.; NAD); Itchweed (Eng.; JFM); Itchy Bean (Eng.; POR; RAI); Itika (San.; WOI); Jackbohne (Ger.; KAP); Jeukbootjes (Dutch; AVP); Jeukerwt (Dutch; EFS); Juckbohne (Ger.; EFS; POR); Juckborste (Ger.; EFS); Juckende Falsen (Ger.; AVP); Judia Aterciopelada de Florida (Sp.; POR); Kacang Babi (Malaya; POR); Kacang Benguk (Malaya; POR); Kacang Gatal (Malaya; POR); Kachang Babi (Malaya; IHB); Kachang Kakara Gatal (Malaya; IHB); Kachang Rimaul (Malaya; IHB); Kach Kuri (Dec.; DEP); Kaincho (Oriya; WOI); Kajukop-Rik (Lepcha; WOI); Kanaucha (Pun.; DEP); Kanchkuri (Dec.; Mar.; DEP; NAD; WOI); Kaochir (Nepal; WOI); Kaocho (Nepal; SUW); Kapesa (Congo; AVP); Kapikacchu (Ayu.; India; AH2); Kapikachchha (Sanskrit; DEP; KAP); Kapikanchoo (Sanskrit; MPI); Kara Benguk (Malaya; POR); Kara-Kara Gatal (Malaya; POR); Karyani (Mong Hyr; DEP); Kauchho (Nepal; KAP; POR); Kaucir (Nepal; POR); Kaunch (Hindi; POR; WOI); Kause Simi (Nepal; POR); Kauso (Nepal; SUW); Kavach (Hindi; KAP); Kavacha (Mar.; WOI); Kavatch (Guj.; WOI); Kawanch (Pun.; DEP; WOI); Kekara Gatal (Malaya; POR); Kekara Juleh (Malaya; POR); Kevatch (Hindi; POR); Khajarkuli (Kon.; NAD); Khatkuli (Kon.; NAD); Khavalyavali (Kon.; NAD); Khuale (Burma; KAP); Khuele (Burma; DEP); Khwele (Burma; DEP); Kivacch (Hindi; DEP; POR); Kivanch (Guj.; Hindi; WOI); Kiwach (Hindi; WOI); Klaude Boenne (Den.; AVP); Konch (Gwalior; Hindi; Yunani; KAP; NAD; POR); Konch Kari (Pun.; DEP); Kotcha (Nepal; POR); Kouach (Nepal; POR); Kouatch (Nepal; DEP); Krame (Sa.; RAI); Kuach (Nepal; WOI); Kuhili (Bom.; Mar.; DEP; WOI); Kuhkroete (Ger.; AVP); Kunch (Pun.; DEP); Lacuna Bean (Eng.; POR); Liane a Gratter (Fr.; GMH); Lyon Bean (Eng.; POR); Lyon's Bean (Eng.; POR); Macmeu (Vn.; POR); Majram (Kon.; NAD); Ma Mui (Thai; POR); Mao Dou (China; POR); Mauritius Bean (Eng.; RAI); Mauritius Velvet Bean (Eng.; POR); Mi Jeh (Akha; EB40:38); Mucuna (Por.; AVP; MPB; RAI); Mucunam (Por.; AVP); Naicorná (Ker.; Mal.; SKJ; WOI); Nasag Unigida (Kan.; DEP); Nasugunni (Kan.; MPI); Nasukunni (Kan.; WOI); Nayik Korana (Mal.; DEP); Nayikurama (Mal.; Malaya; DEP; KAP); Nescafé (Peru; Sp.; EGG; LOR; MDD); Nescao (Peru; Sp.; EGG; LOR); Nettle (Bel.; BNA); Oeil de Bourrique (Fr.; GMH); Ojo de Buey (Sp.; JFM); Ojo de Venado (Sp.; JFM); Ojo de Zamuro (Sp.; JFM); Olho de Burro (Brazil; MPB); Pedda Dulagondi (Tel.; WOI); Petit Pois Pannileux (Fr.; AVP); Pica Pica (Bel.; Sp.; AVP; JFM; RAI); Pien Tou (China; EFS); Pilliadugu (Tel.; WOI); Pó de Mico (Por.; AVP; JFM; MPB; RAI); Poil à Gratter (Fr.; POR); Pois a Gratter (Fr.; EFS); Pois Gratté (Haiti; AVP); Pois Mascate (Fr.; POR); Pois Pouilleux (Fr.; GMH; POR); Pois Pruritant (Fr.; EFS); Pois Velu (Fr.; AVP); Poonailakalei (Tam.; WOI); Poonaipidukkan (Tam.; WOI); Samettipapu (Fin.; POR); Samtbohne (Ger.; POR); Shoriyanam (Mal.; MPI); Si Jeh (Akha; EB40:38); T'au Hung King (China; EFS); Turachi Gida (Kan.; DEP); Vaca Ñahui (Peru; Sp.; MDD); Vanari (Sanskrit; DEP); Velvetbean (Eng.; Scn.; AH2; AHL); Vine Gungol Pea (Eng.; AVP); Wandurme (Sin.; KAP); Wanduru Me (Sin.; TAN); Yokohama Velvet Bean (Eng.; POR).

**Activities:**

Abortifacient (1; HDN; JAC7:405); Alexiteric (f; DEP); Allelochemic (1; X12897455); Anabolic (1; RAI); Analgesic (f1; DAV; RAI); Androgenic (f1; RAI); Anthelmintic (f1; KAB; MPI; PH2; SUW); Antiaging (f; RAI); Antidiabetic (1; X16372373); Antidote (f; DAV; DEP); Antiinflammatory (f1; KAB; RAI); Antiophidic (1; X15369777); Antispasmodic (f1; HDN; HHB; MPI; PH2; RAI); Aphrodisiac (1; DEP; HDN; HHB; SUW); Ascaricide (1; GMH); Astringent (f; WOI); Cardiodepressant (1; PH2); Carminative (f; PH2); Curare (1; HDN); Depurative (f; DEP); Diuretic (f1; AHL; HHB; RAI; VOD; WOI); Emmenagogue (f; HDN; HHB; RAI; WOI); Febrifuge (f1; RAI); Fungicide (1; MPI); Hallucinogenic (1; VOD); Hemostat (f; HDN; UPW); Histaminic (1; MPI; PH2); Hyperkinetic (1; HDN; MPI); Hypertensive (1; HDN); Hypocholesterolemic (f; HHB; RAI); Hypoglycemic (1; MPI; PH2; RAI; X16372373); Hypotensive (1; HDN; HHB; MPI; PH2; RAI); Insecticide (1; MPI; WOI); Nematocide (1; X16953489); Nervine (f; DAV; NAD; RAI; SUW); Neuroprotective (1; X15478206); Neurorestorative (1; X15478206); Neurotonic (f1; HHB; RAI; X15478206); Parasiticide (1; X14735356); Peristaltic (1; PH2); Prolactin-Inhibitor (1; RAI); Proteolytic (1; HHB); Prostaticide (1; X14735356); Psychomimetic (1; VOD); Purgative (f; KAB; SUW; WOI); Rubefacient (1; PH2); Spasmogenic (1; MPI); Spermagenic (1; RAI); Stimulant (f; DEP; HHB); Tachycardic (1; HDN); Teratologic (1; JAC7:405); Testosterogenic (1; RAI); Tonic (f; DEP; HHB; KAB; SUW); Uterotonic (f1; HDN; HHB; RAI); Vasodilator (1; WOI); Vermifuge (f; DAV; DEP; SUW; VOD).

**Indications:**

Acne (f; GMH); Amenorrhea (f; MPI; RAI; WOI); Anasarca (f; DAV); Arthritis (f; HDN; UPW); Asthma (f; DAV); Bilioussness (f; KAB); Bites (f; DAV); Burns (f; EB40:38; HDN); Calculus (f; SKJ); Cancer (1; JLH); Cancer, abdomen (1; FNF; JLH); Cancer, colon (1; FNF; JLH); Cataracts (1; X12458487); Catarrh (f; GMH); Cholecystosis (f; HHB; WOI); Cholera (f; DEP; HHB; RAI; SUW); Colic (f; HDN; UPW); Consumption (f; KAB); Coughs (f; MAD; RAI); Cystosis (f; JFM); Debility (f; PH2; RAI); Delirium (f; DEP; KAB; SUW); Dentition (f; MAD); Dermatoses (f; MAD); Diabetes (f1; PH2; RAI; X12458487; X16372373); Diarrhea (f; RAI); Dizziness (f; HDN); Dropsy (f; DEP; HHB; SKJ; SUW; WOI); Dysentery (f; HHB); Dyskinesia (12; X15548480); Dysmenorrhea (f; RAI); Dysuria (f; DAV); Eczema (f; MAD); Edema (f; JFM; RAI); Elephantiasis (f; KAB; SKJ; UPW; WOI); Enterosis (f; JFM; JLH; RAI); Enuresis (f; SKJ); Epilepsy (1; HAD); Erysipelas (f; UPW); Fever (f1; DEP; KAB; SUW; UPW); Fungus (1; DAV; MPI); Gas (f; RAI); Gastrosis (f; HDN); Gonorrhoea (f; KAB; PH2); Gout (f; HHB; RAI; UPW); Headache (f; KAB; UPW); Hemiplegia (f; DEP); Hemorrhoids (f; UPW); Hepatosis (f; JFM; MAD); Herpes (f; MAD); High Blood Pressure (1; FNF; PH2); High Cholesterol (f1; HHB; PH2; RAI); Hives (f; MAD); Hyperglycemia (f1; PH2; RAI); Impotence (f1; HHB; JFM; SKJ; UPW); Infertility (f; PH2); Inflammation (f1; KAB; RAI); Insanity (f; DAV; MPI); Itch (f; HHB; MAD); Jaundice (f; MAD); Leprosy (f; UPW); Leukorrhoea (f; DEP; MPI); Miscarriage (f; UPW); Myalgia (f; PH2; RAI); Mycosis (f; DAV; MPI); Nephrosis (f; WOI); Neuralgia (f; HHB); Neurosis (f; WOI); Pain (f1; KAB; PH2; RAI; UPW); Paralysis (f; DEP); Parasites (f; RAI; VOD); Parkinson's (12; FAD; PR2:419; X15478206; X15548480); Parotitis (f; DAV; RAI); Pleurosis (f; DAV; RAI); Rheumatism (f; JFM; PH2); Ringworm (f; DAV; RAI); Snake bite (f1; DAV; KAB; RAI; X15369777; X17006651); Sores (f; KAB; RAI; WOI); Spasms (f1; RAI); Spermatorrhea (f; DEP; MPI); Sterility (f; PH2; RAI); Stings (f; HHB; KAB); Swelling (f; HDN; MAD); Syphilis (f; RAI; UPW); Toothache (f; HDN; UPW); Tuberculosis (f; HDN; RAI; UPW); Ulcus cruris (f; MAD); Urethrosis (f; UPW); Uterosis (f; KAB); VD (f; PH2; RAI); Worms (f; PH2; RAI; SUW; VOD).

**Dosages:**

FNFF = !! Young pods cooked and eaten (DEP). ½ drachm to 40 grains for leukorrhoea or spermatorrhea (DEP); 0.6–4 g honey or syrup with stinging hairs for worms, for 2–3 days in the a.m. (HHB); 0.625–1.25 g stinging hairs (KAP); 1.5–2.5 g powdered seed (KAP); 1–2 g powdered seed 2×/day (RAI); ½–1 cup seed decoction 2×/day (RAI).

- Akha apply pounded leaves and stems to burns (EB40:38).
- Asian Indians mix seed with *Tribulus* in tepid milk with sugar as an aphrodisiac (DEP).
- Asian Indians take plant for abortion, cancer, catarrh, cholera, cough, debility, delirium, diabetes, diarrhea, dysentery, dysmenorrhea, edema, fertility, gout, impotence, kidney stones, nervousness, snake bite, sterility, stings, tuberculosis, and wounds (RAI).
- Asian Indians take root for delirium and nervous disorders (VOD).
- Brazilians take root decoction for edema, the powdered seed as aphrodisiac, diuretic, and neurotonic (JFM; RAI).
- Haitians dangerously take dried fruit (still with stinging hairs) decoction for parasites and worms (VOD).
- Salvadorans apply the greased pod hairs typically as counterirritant for arthritis, cystosis, enterosis, and hepatitis (JFM).

#### Downsides:

Not covered AHP. Beware of stinging hairs. As of July 2007, the FDA Poisonous Plant Database listed 63 titles alluding to toxicity of this species.

#### Extracts:

5-Methoxy-DMT is most hallucinogenic after LSD-25 19  $\mu\text{M}/\text{kg}$  5-Methoxy-DMY and 25  $\mu\text{M}/\text{kg}$  5-Hydroxy-DMT and DMT equipotent to 6  $\mu\text{M}/\text{kg}$  of LSD-25 (HDN). Unlike synthetic levodopa treatment, *Mucuna pruriens* cotyledon powder treatment significantly restored the endogenous levodopa, dopamine, norepinephrine, and serotonin content in the substantia nigra. Nicotine adenine dinucleotide (NADH) and coenzyme Q-10 (also useful in Parkinson's) were present in the powder. This treatment not only controls the symptoms of Parkinson's disease, it also has neurorestorative benefits on the degenerating dopaminergic neurons in the substantia nigra (X15478206). Unlike dopamine, l-dopa can cross the blood brain barrier (HDN). The potent antiparkinsonian effect is not entirely due to l-dopa (0.24–6.4% in seed). A seed fraction, devoid of l-dopa, showed significant antiparkinsonian activity i.p. at 200 mg/kg (MPI).

### COW'S EYE (*Mucuna rostrata* Benth.) ++

#### FABACEAE

#### Common Names:

Aguacénqua (Peru; SOU); Ahuacínca (Peru; SOU); Ahuacínca (Peru; SOU); Ancacjsillon (Peru; SOU); Chamairo (Bol.; Tacana; DLZ); Corpus Sacha (Peru; Sp.; LOR); Cow's Eye (Eng.; JAD); Habilla (Peru; SOU); Jich'ex (Que.; DLZ); Llamac Ñahui (Peru; SOU); Llamapa Ñahui (Peru; SOU); Murcu Huasca (Peru; SOU); Ojo de Llama (Peru; SOU); Sachavaca Ñahui (Peru; SOU); Vaca Ñahui (Peru; Sp.; LOR; MDD).

#### Activities:

Antidote (f; DAV); Diuretic (f; DAV; DLZ; SOU); Taenifuge (f; SOU); Vermifuge (f; DAV).

#### Indications:

Bites (f; DAV); Hemorrhoids (f; DAV; DLZ; SOU); Snake Bite (f; DAV); Worms (f; DAV).

#### Dosages:

FNFF = ? Young pods and seeds of other species eaten (FAC; JAD).

#### Downsides:

Hairs sting strongly but the sting subsides if washed with aguardiente (SOU).

**CALABUR TREE (*Muntingia calabura* L.) ++**

TILIACEAE

**Illustrations:**

fig 161 (DAV); fig 209 (IED)

**Common Names:**

Acuruco (Col.; AVP; IED); Bois de Soie (Guad.; AVP); Bois de Soie Matton (Haiti; AVP); Bois d'Orme (Fwi.; AHL); Bois Ramier (Fr.; Guad.; Guy.; AVP; USN); Bolaina Yamanaza (Peru; Sp.; USN); Bolina (Peru; AVP); Cacaniqua (Sp.; USN); Calabura (Brazil; AVP); Calabur Tree (Eng.; USN); Capulen (Guat.; AVP); Capulin (Cr.; Eng.; Mex.; AVP; USN); Capulina (Cuba; AVP); Capulinas (Cuba; RyM); Capulin Blanco (Sp.; USN); Ccoilor Ppanchu (Sa.; RAR); Cedrillo (Ven.; AVP); Cereso Caspi (Peru; DAV); Chapuli (Cuba; AVP); Cherry (Eng.; RAR); Chirriador (Col.; IED); Chitato (Col.; AVP; IED); Chitoto (Col.; IED); Colina (Sp.; RAR); Curumi (Brazil; RAR); Datiles (Pi.; AVP); Duiskap-Krogro (Cr.; AVP); Guasimo Bobo (Cuba; RyM); Guinda Yumanasa (Sa.; RAR); Iumanasa (Peru; AVP; RAR); Jamaica Cherry (Eng.; USN); Japanese Cherry (Eng.; WOI) (misnomer); Jocote (Mex.; AVP); Majaguillo (Pan.; Ven.; AVP; IED); Majanjo (Col.; IED); Majuaguito (Col.; AVP; IED); Memiso (Cuba; Dom.; AVP; RyM); Memizo (Dom.; Dor.; AHL; AVP); Mullaco Huayo (Sa.; RAR); Nigua (Sp.; USN); Niguito (Ecu.; AVP); Niguo (Ven.; AVP); Panama Berry (Eng.; USN); Pasito (Pan.; AVP; IED); Pau de Seda (Brazil; AVP); Periquito (Col.; IED); Puan (Mex.; AVP); Ratiles (Pi.; AVP); Rupinya (Peru; SOU); Strawberry Tree (Eng.; USN); Tapabotija (Col.; IED); Tomaque (Peru; SOU); West Indian Cherry (Eng.; RAR); Yumanasa (Peru; IED; RAR).

**Activities:**

Analgesic (1; X16867020; X17303949); Antiaggregant (1; X17516329); Antispasmodic (DAV; IED; SOU); Antitumor (1; JNP54:196); Cytotoxic (1; JNP54:196; X16254834; X2045815); Emollient (f; RAR; SOU); Hypotensive (1; X17080550); Quinone-Reductase-Activator (1; X12737982); Sedative (f; RAR).

**Indications:**

Cancer (1; JNP54:196; X16254834; X2045815); Colds (f; JET21:705; WOI); Cramps (f; DAW; IED); Headache (f; DAW; IED); High Blood Pressure (1; X17080550); Neurosis (f; DAW; IED); Pain (1; X16867020; X17303949); Sores (f; DAV); Spasms (f; DAW; IED; SOU).

**Dosages:**

FNFF = !! Pulp of fruit eaten out of hand; leaves used in teas (FAC).



**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

Several isolates from the leaves exhibit antiplatelet aggregation activity *in vitro* (X17516329). Aqueous leaf extract antinociceptive against chemically and thermally induced noxious stimuli (X17303949). The leaf isolates (2 S)-5'-hydroxy-7,3',4'-trimethoxyflavanone, 4'-hydroxy-7-methoxyflavanone, 2',4'-dihydroxychalcone, and 2',4'-dihydroxy-3'-methoxychalcone were cytotoxic (IC<sub>50</sub> < 4 µg/ml) against P-388 a/o HT-29 cell lines *in vitro* (X16254834).

**PEDRA HUME (*Myrcia multiflora* (Lam.) DC.) ++****MYRTACEAE****Synonyms:**

*Eugenia multiflora* Lam. (basonym); *Myrcia sphaerocarpa* DC.; fide (USN).

**Notes:**

Taylor (2005) states that Brazilians refer the name "pedra-hume-caá" to three, medicinally interchangeable, species, *M. salicifolia*, *M. sphaerocarpa* (reduced to synonymy under *M. multiflora* by McGuffin et al. (2000), which I follow here), and *M. uniflorus*.

**Common Names:**

Cambui (Por.; USN); Malagueto (Peru; EGG); Pedra Hume (Brazil; Eng.; Scn.; AH2; USN); Pedra-Hume-Caá (Brazil; RAI); Pedra-Ume-Caá (Brazil; MPB); Vegetable Insulin (Eng.; RAI).

**Activities:**

Aldose-Reductase-Inhibitor (1; RAI; X11911215; X9468642); Alpha-Glucosidase-Inhibitor (1; RAI; X9468642); Anorectic (1; RAI); Antidiabetic (f1; AH2; RAI; X11911215; X9468642); Antioxidant (1; RAI); Antiradicular (1; RAI); Astringent (f; EGG; RAI); Diuretic (f; RAI); Hemostat (f; EGG); Hypoglycemic (1; RAI); Hypouricemic (1; RAI); Neuroprotective (1; RAI); Secretolytic (1; RAI); Xanthine-Oxidase-Inhibitor (1; RAI).

**Indications:**

Bleeding (f; EGG; RAI); Cardiopathy (f; RAI); Diabetes (f1; AH2; EGG; MPB; RAI; X11911215; X9468642); Diarrhea (f; RAI); Dysentery (f; EGG; RAI); Enterosis (f; RAI); Gout (1; RAI); High Blood Pressure (f; RAI); Leprosy (f; EGG); Leukemia (f; MPB); Maculosis (1; RAI); Neuropathy (1; RAI); Stomatosis (f; RAI); Wounds (f; RAI).

**Dosages:**

FNFF = ? 1 cup leaf tea 2–3×/day with meals (RAI); 1–2 g leaf capsule/tablet 2–3×/day with meals (RAI).

- Amazonians use for diabetes and diarrhea (RAI).
- Brazilians suggest bath and leaf tea with *M. amazonica*, also called "pedra-hume-caá," for leukemia (MPB).
- Brazilians use for bleeding, cardiopathy, diabetes, diarrhea, dysentery, enteritis, high blood pressure, and oral ulcers (RAI).
- Peruvians suggest for bleeding, diabetes, dysentery, and leprosy (EGG).
- Taiwanos (Amazonia) use astringent leaves for diarrhea (RAI).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

Three new myrciacitrins from the leaves show potent aldose reductase inhibition (X11911215; X9468642).

**CAMU-CAMU (*Myrciaria dubia* (Kunth) McVaugh) +++**

MYRTACEAE

**Illustrations:**

fig 163 (DAV)

**Synonyms:**

*Myrciaria paraensis* O. Berg; *Psidium dubium* Kunth (basionym); fide (USN).

**Notes:**

Note that camu-camu as an edible fruit has almost no published folklore. But look at all the activities and indications below. These are theoretical, not proven. I strongly believe that if 500 mg of ascorbic acid will accomplish an activity to improve an indication, I believe that 5 camu-camu fruits containing 500 mg vitamin C is even more likely (via synergies with other co-evolved compounds). Most of the camu-camu activities and indications below are entered because of the high vitamin C content (1; FNF) and not because of folkloric usage. Ditto for cyanidin-3-glucoside, limonene, alpha-pinene, with which phytochemicals camu-camu is also well endowed. In using my database, whenever you see an entry followed by (1; FNF; \_\_\_\_\_), the (1; FNF) tells you that the entry is there because of a photochemical rationale; the compound was abundant in the plant, and the isolated compound is reported elsewhere to possess that activity. Often the publishing source of the phytochemical's activity is abbreviated in the blank (1; FNF; \_\_\_\_\_). Yes, these are theoretical, some might argue, speculative. But the herbal nay-sayers use the same speculative approach to the negative side of the equation. I did not add the many promising biological activities of ellagic acid, because, so far, I lack quantitative data. It may be important in the fruit, it may be trivial. I wish I knew. Neither Duke and Vasquez (1994), De Lucca and Zalles (1992), Taylor, L. (2005), nor Rutter (1990) gave folk medicinal uses for this species (DAV; DLZ; RAI; RAR). Egg (1999) mentions a few. Naturopathic physician, Leslie Taylor (2005) still says and I cannot disprove her "Camu-camu has never been documented as a traditional herbal remedy for any condition in the Amazon region" (RAI). I think of no more pleasant vitamin C pill than a camu-camu fruit. But if you don't need vitamin C, you are probably generating more of the late Victor Herbert's "expensive urine."

As I was drafting this the USDA came out and said: “Nearly 95 percent of people in the United States are not getting desirable intakes of vitamin E from foods and beverages. More than half aren’t getting enough magnesium, about 40 percent aren’t getting enough vitamin A, and nearly one-third aren’t getting desirable intakes of vitamin C from the foods and beverages in their diets” (USDA; Sept. 29, 2005. [www.ars.usda.gov/is/pr](http://www.ars.usda.gov/is/pr)).

### Common Names:

Araza de Agua (Sp.; USN); Camo Camo (Peru; EGG; RAR; SOU); Camu-Camu (Eng.; Peru; Scn.; Sp.; AH2; CR2; EGG; LOR; MDD; RAR; SOU; USN); Camu-Camu Negro (Peru; Sp.; LOR); Guapuro Blanco (Bol.; DLZ); Rumberry (Eng.; RAI).

### Activities:

Acidulant (1; ARC); Aldose-Reductase-Inhibitor (1; X15636180); Allergenic (1; FNF; M&R); Analgesic (1; FNF; SYN); Anorectic (1; FNF; X15862904); Antiacne (1; FNF; JAR12:99); Antiaggregant (1; FNF; SYN); Antiaging (1; SYN); Antiarthritic (1; FNF; WER); Antiasthmatic (1; FNF; WER); Antiatherosclerotic (1; PAM); Anticancer (1; FNF; X16302773); Anticataract (1; FNF; WER); Anti-Crohn’s (1; FNF; M29); Antidepressant (1; FNF; WER); Antidiabetic (1; FNF; SYN); Antidote (aluminum) (1; FNF; EMP6:189); Antidote (cadmium) (1; FNF; DAS); Antidote (lead) (1; FNF; DAS); Antidote (paraquat) (1; FNF); Antieczemic (1; FNF; WER); Antiedemic (1; DAS; FNF); Antifeedant (1; FNF; JAF45:3276); Antiflu (1; FNF; EMP5:195); Antihepatitic (1; DAS; FNF); Antiherpetic (1; FNF; WER); Antihistaminic (1; FNF; WER); Antihyperglycemic (1; FNF; JN133:2125); Antihyperinsulenemic (1; FNF; JN133:2125); Antihyperleptinemic (1; FNF; JN133:2125); Antiinflammatory (1; FNF; PAM); Antimutagenic (1; EMP6:235; FNF); Antineuramidase (1; FNF; X634178); Antinitrosic (1; FNF); Antiobesity (1; FNF; JN133:2125); Antioxidant (1; FNF; X16302773); Antipneumonic (1; FNF; X16248573); Antiradicular (1; FNF; SYN); Antiscorbutic (1; FNF); Antiseptic (1; FNF); Antispasmodic (1; FNF; PR14:623); Antistaphylococcic (1; FNF; X16248573); Antitumor, breast (1; FNF; X16277432); Antitumor, colon (1; FNF; X16277432); Antitumor, lung (1; FNF; NR54:S71; X16277432); Antiulcer (1; FNF; WER); Antiviral (1; DAS; FNF; WER); Apoptotic (1; BO2; FNF; X12921557); Bactericide (1; FNF; DAS); Beta-Glucuronidase-Inhibitor (1; BO2; FNF); Chemopreventive (1; FNF; X8841165); Collagenic (1; BO2; FNF); COX-1-Inhibitor (1; FNF; X16277432); COX-2-Inhibitor (1; FNF; X16277432); Cytotoxic (1; FNF; X12921557); Detoxicant (1; FNF); Diuretic (1; FNF); Expectorant (1; FNF; MIK); Febrifuge (1; FNF; EMP6:189); Hemostat (1; DAS; FNF); Hepatoprotective (1; EMP6:189; FNF); Histaminic (1; FNF; X15862904); Hypocholesterolemic (1; DAS; FNF); Hypoglycemic (1; FNF; SYN); Hypotensive (1; SNE137:292); Immunostimulant (1; SYN); Insecticide (1; FNF; JAF50:4576); Insectifuge (1; FNF; HH3); Insulinogenic (1; FNF; X15631504); Inteferonogenic (1; FNF; PAM); Larvistat (1; FNF; JBH); Lipolytic (1; FNF; X15631504; X15862904); Lithogenic (1; DAS; FNF); Mucolytic (1; FNF); p450(2B1)-Inhibitor (1; FNF; X9242356); Secretagogue (1; FNF; X15631504); Sedative (1; FNF; LRN-Jun90); Spasmogenic (1; FNF; PR14:623); Tranquilizer (1; FNF; LRN-Jun90); Transdermal (1; FNF; X7199340); Uricosuric (1; DAS; FNF); Urinary-Acidulant (1; FNF; M29); Vulnerary (1; FNF; PAM).

### Indications:

Alzheimer’s (1; COX; FNF; X16277432); Arthrosis (1; COX; FNF; WER); Asthma (1; FNF; PAM; X15598576); Atherosclerosis (1; FNF; PAM); Bacteria (1; DAS; FNF); Bleeding (1; DAS; FNF); Cancer (1; FNF; X12921557); Cancer, breast (1; FNF; X16277432); Cancer, colon (1; COX; FNF; X16277432); Cancer, liver (1; FNF; X12688534); Cancer, lung (1; FNF; X14582701); Cancer, stomach (1; FNF; X12921557); Canker (1; FNF); Cardiopathy (1; X16302773); Cataracts (1; FNF; WER); Constipation (f1; EGG; FNF); Cramps (1; FNF; PR14:623); Crohn’s (1; FNF; M29); Colds (1; FNF); Decubitus (1; FNF);

Depression (1; FNF; WER); Diabetes (1; FNF; SYN; X16302773); Eczema (1; FNF; WER); Edema (1; DAS; FNF); Encephalitis (1; DAS; FNF); Enterosis (f; EGG); Fever (1; EMP6:189; FNF); Fistula (1; FNF; PAM); Flu (f1; EGG; FNF); Gastrosis (f1; EGG; FNF; X12921557); Gingivitis (1; FNF); Glaucoma (1; FNF); Gout (1; FNF); Grippe (f1; EGG; FNF); Hepatosis (1; DAS; FNF; X12688534); Herpes (1; FNF); High Blood Pressure (1; SNE137:292); High Cholesterol (1; DAS; FNF); Hyperglycemia (1; FNF; SYN); Immune-Depression (1; SYN); Infection (1; FNF); Infertility (1; FNF; WER); Inflammation (1; FNF; PAM; X15598576); Insomnia (1; FNF; LRN-Jun90); Leprosy (1; FNF); Measles (1; DAS; FNF); Melanoma (1; FNF; X14582701); Metastasis (1; FNF; X14582701); Migraine (1; FNF; M29); Obesity (1; FNF; WER; X15862904; X16302773); Orchitis (1; DAS; FNF); Osteoarthritis (1; FNF; WER); Osteoporosis (1; FNF; PAM); Pain (1; FNF; SYN); Parkinson's (1; FNF; WER); Parotitis (1; DAS; FNF); Periodontitis (1; FNF; WER); Pneumonia (1; FNF; PAM); Poliomyelitis (1; DAS; FNF); Pulmonosis (1; FNF; NR54:S71; X14582701); Rheumatism (f; EGG); Senility (1; FNF); Shingles (1; DAS; FNF); Sores (1; FNF; PAM); Spasms (1; FNF; PR14:623); *Staphylococcus* (1; FNF; X16248573); Syndrome-X (1; FNF; SYN); Ulcers (1; FNF; WER); Viruses (1; FNF; WER); Water Retention (1; FNF); Wounds (f1; EGG; FNF; PAM).

### Dosages:

FNFF = !! 3–4 fruits providing 300–400 mg vitamin C (JAD). Dosages below based solely on vitamin C recommendations and assuming one fruit delivers an average 100 mg. That's what I had written earlier. Still figuring it's one of the better sources of vitamin C, I think the figure should be closer to 20–50 mg/fruit, assuming a fruit weighs 1 g and contains 5% vitamin C, averaging a bit more in the pericarp than in the pulp. So multiply these values by 2 if yours is a 5% camu-camu, multiply by 5 if yours is a low 2% camu-camu, or take more pericarp and less pulp. I prefer the pulp. These figures assume no synergies, but I assumed synergies will do more than your multiplications need do.

- 4–20 fruits/day for aging; 2½ fruits/day for arthritis; 2½ fruits/day plus coffee for asthma; 3 fruits/day for cardioprotection; 5 fruits/day for common cold; 1 fruit/day for Crohn's disease; 9–12 fruits/day for eczema; 5–60 fruits/day for flu; 5 fruits/day for glaucoma; 3 fruits/day for high blood pressure; 3 fruits/day for high cholesterol; 8 fruits/day for obesity; 2 fruits/day for osteoporosis; 50–100 fruits for pain; 5 fruits/day for Parkinson's (JAD).
- Peruvians drink the fruit juice straight, or with water, for enterosis, gastrosis, and flu (EGG).
- Peruvians poultice the bark onto wounds (EGG).
- Peruvians take the bark decoction with the fruit juice and rum for rheumatism (EGG).

### Downsides:

Not covered (AHP; KOM; PH2). Too much of anything, even vitamin C can be bad, but it might possibly be hard to overdose eating acid fruits. I don't remember any problems from consumption. I'm sure you can overdose, even on edible camu-camu, though I have never heard any contraindications. As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

### Extracts:

Most FNF entries above based on the fact that camu-camu is the richest edible source of vitamin C. The recent discovery of ellagic-acid (X15636180) and quantization of headspace volatiles (X10775382 ) and anthocyanins (X16302773) brings even more to the food farmacy table.

**TOLU BALSAM TREE (*Myroxylon balsamum* (L.) Harms var. *balsamum*) ++****FABACEAE****Synonyms:**

*Myroxylon toluiferum* Kunth; *Toluifera balsamum* L. (basionym) fide (USN).

**Notes:**

Regrettably McGuffin et al. (2000) use “Peruvian balsam” as the other common name for both *Myroxylum* species (or varieties) of concern, Peru and Tolu. I resort to an antithetical memory device, “Peru” or “pereirae balsam,” ain’t from Peru. This species *M. balsamum* var. *balsamum* is! In a strange twist of fate, the balsam called “Balsam of Tolu” (this one) is Amazonian, and “Balsam of Peru” originally Central American. Perhaps nomenclatorially and medicinally they are interchangeable (JAD). McGuffin et al. (2000) and the USDA Nomenclature Database (USN) maintain them as varietally distinct. So do I. García et al. (1998) keep them as separate species. Vozzo (2002) clearly lumps them, and I applaud that. Too often it takes me a half hour to convince myself which is which, when a new paper comes out, all the while fearing that the botanists and herbalists and balsam exporters don’t really know which they have.

**Common Names:**

Árbol de Tolú (Sp.; USN); Árbol Tolú (Sp.; USN); Bálsamo (Sa.; SOU); Bálsamo del Peru (Peru; Sal.; Spain; EGG; MPG; VAD); Bálsamo del Valle (Peru; Sa.; EGG; SOU); Bálsamo de Tolú (Sp.; USN); Bálsamo do Peru (Brazil; Por.; JFM; MPB); Balsam of Tolu (Eng.; CR2; USN); Balsemboom (Dutch; EFS); Baume de Tolu (Fr.; EFS); Baumier de Tolu (Fr.; USN); Becoo (Shipibo/Conibo; EGG); Caboreiba (Brazil; MPB); Caboriba (Brazil; MPB); Estoraque (Bol.; Peru; Sp.; DLZ; EGG; SOU; USN); Iba el (Bol.; Chiriguano; DLZ); Iguirapaye (Bol.; Chiriguano; DLZ); Kina-Kina (Aym.; Peru; Que.; EGG; SOU); Miroxilon (Sp.; EFS); Oleo Vermeljo (Brazil; Por.; JFM; MPB); Opobalsam (Eng.; Ocn.; AH2; USN); Palo de Bálsamo (Peru; EGG); Pau de Balsamo (Por.; EFS); Peruvian Balsam (Eng.; Ocn.; AH2); Quina Quina (Ai.; Peru; Sa.; EGG; SOU); Quino Quino (Ai.; Peru; Sa.; EGG; SOU); Sahumerio (Sa.; JTR); Sancurmich (Ai.; Peru; Sa.; EGG; SOU); Tolu (Ocn.; AH2); Tolu Balsam (Den.; EFS; USN); Tolubalsambaum (Ger.; USN); Tolu Balsambaum (Dutch; EFS); Tolu Balsam Tree (Eng.; Scn.; AH2; EFS; USN); Tolu Balsemboom (Dutch; EFS); Voni (Amahuaca; Peru; RAR).

**Activities:**

Acaricide (f; EGG); Allergenic (f12; RAI); Antiinflammatory (f; RAI; VAD); Antiseptic (1; FNF; PH2; PNC; RAI; VAD; X16114081); Antispasmodic (f; VAD); Antitussive (f; RAI); Antiulcer (1; RAI); Bactericide (1; PH2; RAI; X16114081); Bechic (f; VAD); Cicatrizant (f; EGG; VAD); Digestive (f; VAD); Expectorant (f1; EFS; PHR; PH2; PNC; RAI; VAD); Febrifuge (f; EGG; SOU); Fungicide (f1; PH2; RAI); Gastroprotective (1; RAI); Mucolytic (f; EGG); Parasiticide (f; RAI; VAD); Pectoral (f; EFS); Stimulant (f; PNC; VAD); Tonic (f; EFS); Vermifuge (f; EGG); Vulnerary (f; EFS).

**Indications:**

Abscesses (f; DAV; RAI); Acariasis (f; EGG); Asthma (f; DAV; RAI; VAD); Bacteria (1; PH2; RAI; X16114081); Bronchosis (f12; PHR; PH2; RAI; VAD); Cancer (f; JLH); Catarrh (f12; KOM; PIP; RAI); Colds (f; DAV); Coughs (f12; PHR; PH2; PNC; RAI; VAD); Dandruff (f; RAI); Dermatitis (f1; RAI); Diarrhea (f; RAI); Dysentery (f; RAI); Dysmenorrhea (f; RAI); Eczema (f1; RAI); Emphysema (f; VAD); Flu (f; RAI); Headache (f; DAV; RAI); *Helicobacter* (1; RAI); Induration (f; JLH); Infection (1; FNF; PH2; PNC; RAI; VAD; X16114081); Inflammation (f1; PH2; RAI; VAD); Laryngitis (f; RAI; VAD); Leukorrhea (f; RAI); Mucositis (1; PH2); *Mycobacterium* (1; RAI); Nervousness (f; RAI); Parasites (f; RAI; VAD); Pharyngitis (f; VAD); *Pseudomonas* (1; X16114081); Pulmonosis (f1; DAV;

EGG); Rashes (f1; RAI); Respirosis (f1; EGG; PH2; RAI; VAD); Rheumatism (f; DAV; RAI); Sclerosis (f; RAI); Sores (f; EFS; RAI); Sore Throat (f; RAI); Spasms (f; RAI; VAD); Sprains (f; DAV); *Staphylococcus* (1; X16114081); Stress (f; RAI); Swelling (f; JLH); Tracheitis (f; VAD); Tuberculosis (f1; RAI); Ulcers (1; RAI); VD (f; DAV; RAI); Worms (f; EGG); Wounds (f; EFS; EGG; PH2; RAI).

**Dosages:**

FNFF = ! Resin and EO used to flavor baked goods, candy, chewing gum, ice cream, and soft drinks. 2 parts of Tolu:3 almond oil:4 gum arabic:16 rosewater for excoriated nipples (GMH); 0.6 g balsam (KOM; PIP); 0.5 g balsam (PHR); 2–8 ml Tolu syrup (PNC); 2–4 ml Tolu tincture (PNC).

- Amazonians use for abscesses, asthma, bronchoses, catarrh, flu, headache, rheumatism, sores, sprains, tuberculosis, VD, and wounds (RAI).
- Central Americans and Mexicans use for bronchial ailments and colds (RAI; VAD).
- Dominicans use for dyspepsia, excess mucus, sores, and wounds (RAI).
- Peruvians powder pomade for acarids, the leaves and fruits as mucolytic and vermifuge, and the balsam for chest complaints, fever, and wounds (EGG).
- Spaniards suggest for respiratory afflictions (asthma, bronchitis, cough, emphysema, laryngitis, pharyngitis, tracheitis), cystitis, and urethritis, using topically for dermatoses, itch, and sores (VAD).

**Downsides:**

None reported (KOM; PIP). Allergic reactions not reported but possible (PHR).

**Extracts:**

Hexane extracts inhibited growth of methicillin-sensitive and -resistant *Staphylococcus aureus* strains and most of the *Pseudomonas aeruginosa* strains tested, at 500 µg/ml (X16114081).

M

**BALSAM OF PERU (*Myroxylon balsamum* (L.)**

**Harms var. *pereirae* (Royle) Harms) ++**

FABACEAE

**Illustrations:**

fig 164 (DAV); p 584 (TTS)

**Synonyms:**

*Myrospermum pereirae* Royle; *M. toluiferum* (A. Rich.) DC.; *Myroxylon balsamum* (L.) Harms var. *punctatum* (Royle) Harms; *M. pereirae* (Royle) Klotzsch; *M. peruiferum* Millsp.; *M. punctatum* Klotzsch; *M. toluiferum* Kunth; *Toluifera balsamum* L.; *T. pereirae* (Royle) Baill.

**Notes:**

Regrettably AH2 uses “Peruvian balsam” as the other common name for both species of *Myroxylum* treated here. In a strange twist of fate, the balsam called “Balsam of Peru” (this one) is originally Central American and the one called “Balsam of Tolu” is Amazonian, not Central American. MPB uses both Tolu and Peru balsam for this Amazonian species. Here, as did LEG, BNA seem to have also mixed the Peruvian with the Tolu. Perhaps nomenclatorially and medicinally they are interchangeable (JAD). USN maintains them as varietally distinct. MPG seems to have aggregated them. TTS clearly lumps them, and I applaud that. Too often it takes me a half hour to convince myself which is which, when a new paper comes out, all the while fearing that the botanists and herbalists and balsam exporters don’t really know which they have.

**Common Names:**

Arbol de Bálsamo (Ma.; JFM); Balsamito (Ma.; JFM); Bálsamo (Bel.; Brazil; Peru; Sp.; LOR; SAR); Bálsamo Blanco (Sp.; USN); Bálsamo das Indias (Ma.; JFM); Bálsamo del Perú (Sp.; USN); Bálsamo del Valle (Peru; SOU); Bálsamo de Peru (Ma.; Sal.; Spain; JFM; MPG; VAD); Bálsamo de San Salvador (Ma.; JFM; JTR); Bálsamo de Sao Salvador (Ma.; JFM); Bálsamo de Sonsonate (Ca.; JTR); Bálsamo de Tolu (Brazil; Ca.; JTR); Bálsamo di Peru (It.; EFS); Balsam of Peru (Eng.; CR2; LEG; USN); Balsam-of-Peru Tree (Eng.; Scn.; AH2; CR2; USN); Bálsamo Negro (Ma.; JFM); Bálsamo Peruvina (Sp.; EFS); Bálsamo Tolutano de Cartagena (Sa.; JTR); Balsamseed (Bel.; BNA); Baume de Perou (Fr.; EFS); Baumér de Tolu (Fwi.; JTR); Baumér du Pérou (Fwi.; JTR); Baumier du Pérou (Fr.; USN); Billyweed (Bel.; BNA); Cedro Chino (Mex.; JFM; PCS); Chichipale (Ma.; JFM); Chirracca (Ma.; JFM; TTS); Chuchupate (Ma.; JFM); Chucte (Mex.; JFM; PCS; TTS); Estoraque (Peru; Sp.; DAV; LOR; MDD); Guatemala (Cuba; JTR); Hoitziloxitl (Mex.; Nahuatl; PCS); Naba (Bel.; Ma.; BNA; JFM); Nabal (Ma.; JFM); Oleo Pardo (Ma.; Peru; JFM; SOU); Paila (Cuna.; IED; JFM); Palo de Balsamo (Ma.; JFM); Palo de Trapiche (Ma.; JFM); Peru Balsam (Eng.; LEG; MPB; USN); Perubalsambaum (Ger.; USN); Peru Balsambaum (Ger.; EFS; USN); Perubalsemboom (Dutch; EFS); Peruvian Balm (Eng.; RAR); Peruvian Balsam (Eng.; Ocn.; AH2); Peruvian Balsam Tree (Eng.; EFS); Pidoquera (Choco.; IED; JFM); Qapi (Callawaya; DLZ); Quina-Quina (Peru; SOU); Quino-Quino (Peru; SOU); Reko (Mex.; PCS); Sancurmich (Peru; SOU); Sandalo (Ma.; TTS); Semillos de Obispo (Mex.; PCS); Tolu Balsam (Eng.; MPB); Yagaguiente (Mex.; JFM; PCS; TTS).

**Activities:**

Acaricide (2; KOM; PIP); Allergenic (f12; RAI); Analgesic (f; JTR; VAD); Antiinflammatory (f; RAI; VAD); Antiseptic (f12; KOM; MPG; PIP; PNC; RAI); Antitubercular (1; PR14:303); Antitussive (f; RAI; VAD); Antiulcer (f1; CRC; RAI); Bactericide (f12; KOM; PIP; RAI; VAD); Carcinogenic (1; CRC); Cicatrizant (f1; DAV; VAD; 60P); Deodorant (f; CRC; IED; JFM); Diaphoretic (f; MAD); Diuretic (f; JFM); Expectorant (f; CRC; JFM; MPB; PNC); Febrifuge (f12; DAV; PHR); Fungicide (f1; JFM; RAI; VAD); Gastroprotective (f1; CRC; RAI); Hemostat (f; JFM); Hypertensive (f; GMH); Mucolytic (f; RAI); Mycobactericide (1; PR14:303); Parasiticide (f12; CRC; JFM; PIP; RAI; VAD); Pectoral (f; EFS; SAR); Pediculicide (2; CRC; PIP); Rubefacient (f; CRC; LEG; MPG); Stimulant (f; EFS; PNC); Stomachic (f; PCS); Vermifuge (f; JFM); Vulnerary (f12; CRC; PH2; RAI; 60P).

**Indications:**

Abscesses (f; 60P); Alveolitis (f; CRC); Amenorrhea (f; CRC; JFM); Asthma (f; CRC; DAV; JFM; MPB; RAI); Bacteria (12; KOM; PIP; RAI); Bedsores (2; KOM; PHR; PIP); Bleeding (f; CRC; IED; PH2); Bleennorrhagia (f; MPB); Bleennorrhea (f; MAD); Bronchosis (f12; DAV; JFM; PHR; PH2; RAI); Bruises (2; KOM; PHR; PH2); Burns (2; KOM; PHR; PH2; PIP); Cancer (f; JLH); Carbuncles (f; MAD); Carcinoma (f; JLH); Cardiopathy (f; GMH); Caries (f; MAD); Catarrh (f; CRC; DAV; JTR; PNC); Chilblains (f; CRC; MAD; PIP; RAI; VAD); Childbirth (f; CRC; IED; PH2); Colds (f12; PHR; PH2; RAI; SAR); Colic (f; RAI); Coughs (f12; JFM; MPB; PHR; PH2); Cystitis (f; MPB); Dandruff (f; RAI); Decubitus (f; PH2; RAI); Dermatitis (f1; CRC; JFM; LEG; RAI; VAD); Diarrhea (f; CRC; PNC); Dry Socket (f; CRC); Dysentery (f; JFM; RAI); Dysmenorrhea (f; CRC; JFM; RAI); Eczema (f1; PH2; PNC; RAI); Erythema (f; MAD); Fever (f12; DAV; PHR); Flu (f; RAI); Freckles (f; GMH; PCS; RAI); Frostbite (2; KOM; PHR; PH2); Fungus (f1; RAI); Gleet (f; GMH); Gonorrhea (f; CRC; JFM); Gout (f; MAD; RAI); Headache (f; CRC; JTR; PH2); *Helicobacter* (1; RAI); Hemorrhoids (f12; KOM; MPG; PHR; PH2; PIP); Induration (f; JLH); Infection (f12; KOM; MPG; PHR; PH2); Inflammation (f12; PH2; VAD); Itch (f; CRC; JFM; PH2; PNC; RAI); Laryngitis (f; CRC; JFM; RAI); Leukorrhea (f; CRC; JFM; RAI); Lice (f1; CRC; PIP; RAI); Metrorrhagia

(f; JFM; PH2); Mucososis (f; JTR; MAD; PH2); *Mycobacterium* (1; RAI); Nervousness (f; RAI); Osteomyelitis (f; CRC; JFM; RAI); Otitis (f; GMH); Pain (f; JTR; VAD); Paralysis (f; MAD); Parasites (f1; LEG; RAI); Pediculosis (2; CRC; PIP); Pharyngosis (2; PHR; PH2); Phthisis (f; MAX); Proctosis (f; CRC); Prurigo (f1; RAI); Puerperium (f; JFM); Pulmonosis (f; DAV); Rashes (f1; PNC; RAI); Respirosis (f; MAD; PH2; RAI); Rheumatism (f; CRC; JFM; PH2; RAI; 60P); Ringworm (f1; RAI); Scabies (f12; CRC; KOM; PH2; RAI); Sclerosis (f; RAI); Sores (f12; JFM; PH2; PIP); Sore Throat (f; RAI); Sprains (f; DAV; RAR); *Staphylococcus* (1; MPG; 60P); Stomatosis (2; PHR; PH2); Stress (f; RAI); Swelling (f; JLH); Tetanus (f; MAD); Toothache (f; CRC; JFM; PH2); Tuberculosis (f1; CRC; DAV; RAI); Tumors (f; JLH); Ulcers (f1; CRC; RAI); Ulcus cruris (2; KOM); Urethrosis (f; PH2); Uterosis (f; CRC; PH2); VD (f1; JFM; 60P); Whitlow (f; JLH); Wounds (f12; KOM; PHR; PH2; PIP; RAI).

### Dosages:

FNFF = !! According to Facciola (1998), the hot spicy bitter resins and the EO from it are flavoring in baked goods, candies, chewing gums, and other foods. Guatemalans add the seeds to aguardiente as Mexicans add almond seeds to tequila. Tanaka (1976) says, rightly or wrongly, the balsam is used as a vanilla substitute (FAC; TAN). 0.2–2 g/day (MAD).

- Central Americans and Mexicans use as antitussive, expectorant, and vulnerary, for asthma, cold, flu, rheumatism, and wounds (RAI; VAD).
- Choco Indians (Panama and Columbia) use grated bark on umbilical scars, to treat female hemorrhage, and as an underarm deodorant (IED).
- Cubans use as expectorant and pectoral, using for bruises, headache, mucous disorders, pain, and rheumatism (JTR).
- Mexicans use for asthma, bronchitis, colic, dysmenorrhea, dysuria, flu, freckles, gout, itch, osteomyelitis, parasites, rheumatism, ringworm, scabies, sores, spasms, stomachache, tumors, VD, and worms (RAI).

### Downsides:

Allergic skin reactions (KOM; PIP). Commission E reports counterindications: allergic disposition; adverse effects: allergic skin reactions (KOM). Application on large surfaces maximum 10%. Not to be used for more than 1 week (AEHD). As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.





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# N

## JACKASS BITTERS (*Neurolaena lobata* (L.) Cass.) ++

### ASTERACEAE

#### Illustrations:

fig 214 (IED); p 98 (AAB)

#### Synonyms:

*Calea lobata* Sw.; *Conyza lobata* L.; *Conyza symphytifolia* Mill.; *Pluchea symphytifolia* (Mill.) Gillis; fide (AVP; MPG; USN; VOD).

#### Notes:

Everybody loves the name “jackass bitters,” and it is used for almost everything except diabetes in Belize. Central American herbal expert Dr. Rosita Arvigo and I have listed a whole host of ailments treatable with what Belizeans call “jackass bitters” (in Panama, I had known it three decades earlier as “contragavlina”), ameba, beef worm, *Candida*, other fungi, giardia, headlice, intestinal parasites, ringworm, and screw worm. As a matter of fact, Rosita peddles “jackass bitters” as the primary ingredient of her “Traveler’s Tonic” for tourists suffering Montezuma’s revenge or malaria. Surrounded by a group of local female healers, some Maya, some African-American, Rosita stressed the power of “jackass bitters” for vaginal yeast infections at the first *Rainforest Pharmacy Workshop* held in Belize (May 20–28, 1995). Boiled leaves are used as a fungicide or an insecticide on diseased house or garden plants.

Now in Peru and elsewhere in the tropics, they diagnose diabetes by watching the ants attracted to the urine of the diabetic, full of sugar. My shaman in Peru recommends “cocona,” a local fruit in Peru, but grapefruit for those who can’t come up with the cocona. So far *Neurolaena* has not been reported from Peru. But Rosita’s aides suggested what may be a new test for diabetes. They say that the jackass bitters do not taste bitter to diabetics, perhaps a handy diagnosis for diabetics if confirmed. If true, that could be a more attractive test than drawing blood, tasting urine, floating dip sticks, or watching to see if piss ants come to your piss.

In my USDA files is a copy of a 1989 letter from a Florida physician to the then-director of the USDA Beltsville Human Nutrition Research Center, Dr. Walter Mertz: Enclosed is a sample of “weed” provided to me by a diabetic patient. This is a rather interesting adult-onset diabetic who had been insulin-requiring until beginning this “weed.” The patient brought back this “weed” from the Island of Trinidad. I am hoping you will be able to identify the plant and to determine its effective ingredient. The patient reports that she mixes a small portion of the “weed” with vermouth and takes small sips of this about twice a day. This has resulted in normalization of her blood sugar over the past approximately six months. Knowing of my interest in folk medicine, Dr. Mertz sent me the letter and specimen, which I tentatively identified as *Neurolaena lobata*, having found a report that the leaf tea of *Neurolaena*, under the creole name “zeb a pic,” was taken for diabetes; and in vermouth, for biliousness, colds, dysmenorrhea, fever, and malaria. I responded to the physician for Dr. Mertz, tentatively identifying the plant (only leaves had been submitted). “Research has confirmed the antidiabetic activity of jackass bitters. A 100% ethanol extract (a bit stronger than vermouth!) is antihyperglycemic (prevents high blood sugar) in mice orally at doses of 250 mg/kg.” If I were a 100 kg

mouse, that would mean I'd have to drink 25 g of nearly 200 proof jackass vermouth. For those of you who don't think metrically, that's less than a single ounce shot. At a double-shot dose (500 mg/kg orally in the mouse) it certainly lowers blood sugar. I could probably even handle a double shot with a little lemonade for chaser (but I would prefer that my lemonade be sweetened with the sweet leaf of Paraguay, *Stevia rebaudiana* (stevia), rather than demon sugar!). Personally I'd feel a bit safer with the jackass bitters than with the "rosy" or "Madagascar periwinkle," known to Belizeans as "ram goat" (*Catharanthus*) or the bitter gourd, known to Belizeans as "sorosi" (*Momordica*). I'm convinced that all three of these can lower blood sugar, though. Clearly the Jamaican "sorosi," or *Momordica*, is the most promising, at least as backed by scientific evidence, of the tropical answers to diabetes overall.

### Common Names:

An Man (Bel.; BNA); An Mank (Bel.; BNA); Bitterwood (Eng.; VOD); Caballón (Dor.; AHL; AVP); Capitana (Cr.; MPG); Contragavilana (Pan.; Sp.; IED; MPG; VOD); Gavilana (Pan.; MPG); Gúye Árani (Garifuna; Nic.; IED); Herbe à Pique (Guad.; AVP; JTR); Inaciabi (Cuna; MPG); Jackass-Bitters (Eng.; CR2; USN); Kabayim (Bel.; BNA); K'an Mank (Bel.; BNA); Kunata Palska (Ulwa; ULW); Mano de Lagarto (Bel.; Guat.; AAB; BNA); Mano de Tigre (Col.; MPG); Manzanilla (Cuba; Dor.; AHL; AVP); Retama Arbusto (Cuba; JTR); Romerillo (Cuba; JTR); Salvia Cimarrona (Cuba; JTR); Sepi (Pr.; AVP; JTR); Tabac à Diable (Guad.; AVP); Tabac Zombi (Creole; Haiti; VOD); Tchékili (BriBri; Cr.; IED); Tres Puntas (Bel.; Guat.; AAB; BNA; MPG); Victoriana (Cuba; AVP; JTR; RyM); Yerba del Cáncer (Col.; JTR); Zeb Apik (Creole; Haiti; VOD). (Nscn).

### Activities:

Acarifuge (f; VOD); Antibilious (f; MPG); Antifilarial (1; X15831109); Antihyperglycemic (1; AAB); Antileishmanic (1; PR15:327); Antimalarial (f; MBC); Antiseptic (1; FNF; HAD; MBG); Antitumor (f; JLH; MPG); Antivaginitic (1; PR15:327); Bitter (f; JTR); Carminative (f; JFM; MBC); Cholagogue (f; MPG); Corroborant (f; JTR); Culebrifuge (snake repellent) (f; JFM); Depurative (f; AAB); Digestive (f; VOD); Diuretic (f; IED; JFM; ULW); Febrifuge (f; AHL; JTR; MBC; VOD); Fungicide (f; AAB); Hypoglycemic (1; AAB; JE10:323; MBC; MPG); Hypotensive (f; IED; MBC); Insecticide (f1; JFM; MPG); Ixodifuge (f; IED; JFM; MBC); Orexigenic (f; JFM; MBC); Parasiticide (f1; PR15:327; VOD); Pediculicide (f; AAB); Piscicide (f; MPG); Protisticide (1; PR15:327); Stomachic (f; AHL; JFM; JTR; MPG); Tonic (f; JTR; MBC); Trichomonicide (1; PR15:327); Trypanosomicide (1; PR15:327).

### Indications:

Abscesses (f; VOD); Allergies (f; MPG); Amebiasis (f; AAB); Arthrosis (f; VOD); Asthma (f; VOD); Bilioussness (f; MPG); Bronchosis (f; VOD); Cancer (f; JLH; MPG); Chickenpox (f; JFM; JTR); Childbirth (f; IED); Colds (f; HAD); Colic (f; JFM; MBC); Dermatitis (f; AAB; ULW); Diabetes (f1; AAB; JE10:323; JFM; MBC; MPG); Diarrhea (f; MBC); Dysmenorrhea (f; HAD; MPG); Dyspepsia (f; VOD); Dysuria (f; VOD); Enterosis (f; MBC); Fever (f; AHL; IED; JFM; JTR; MBC; ULW; VOD); Fungus (f; AAB); Gas (f; JFM; MBC); Gastrosis (f; JFM; MBC); Giardiasis (1; HAD); Gonorrhoea (f; IED; MPC); Headache (f; MPG); High Blood Pressure (f; IED; MBC; ULW); High Blood Sugar (1; JE10:323); Infection (f1; AAB; FNF; HAD; MBG; PR15:327); Itch (f; AAB; IED; MPG); *Leishmania* (1; PR15:327); Leukorrhoea (f; AAB); Lice (1; AAB); Malaria (f1; IED; JFM; MBC; ULW); Mesentery (f; JLH); Mycosis (f1; AAB); Parasites (f1; AAB; PR15:327; ULW; VOD); Pediculosis (f1; AAB; HAD); Pregnancy (f; IED); Protozoa (1; PR15:327); Rashes (f; JFM); Rheumatism (f; VOD); Ringworm (f; AAB); Scabies (1; AAB; HAD); Screw Worms (f; AAB); Snake Bite (f; MBC; MPG); Sores (f; AAB; JFM; MBC; ULW); Stomachache (f; IED; JFM); Tick (f; VOD); Trichomonas (1; PR15:327; X11406857); Trypanosomiasis (1; PR15:327; X11406857); Ulcers (f; JFM); Vaginosis (f1; AAB; PR15:327); VD (f; IED); Weaning (f; VOD); Wounds (f; AAB; JFM; MBC); Yaws (f; VOD); Yeast (1; HAD; IED; JFM).

**Dosages:**

FNFF = ?

- Ailigandi Cuna take the leaf tea for stomachache (IED).
- Antilleans use the plant for “scirrhus engorgement of the mesentery,” a condition that Hartwell (1982) regarded as cancerous (JLH).
- Belizeans apply leaf juice to dermatosis, mycosis, sores, and wounds (AAB).
- Belizeans suggest 1 fresh leaf/decocted cup, 1–3 cups/day for intestinal parasites (AAB).
- Cubans view the herb as corroborant, febrifuge, and stomachic, using for chickenpox and “granitos” (JTR).
- Dominican Caribs apply bitter leaf a/o flower to encourage weaning (VOD).
- Dominicans smoke the dried leaves for asthma and bronchosis (VOD).
- Dominicans take leaf decoction or tea for abscesses, arthrosis, diabetes, dyspepsia, dysuria, and flu (VOD).
- Latinos suggest a decoction of 6 leaves, 2 glasses/day, for malaria (MPG).
- Latinos suggest 3 leaves decocted in a bottle of water, 2 cups 2×/day for diabetes (MPG).
- Nicaraguan Garifuna use leaf decoction orally or topically for childbirth and pregnancy, fever, high blood pressure, and as a diuretic (IED).
- Trinidadans sometimes take a vermouth tincture for diabetes (JAD).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

According to Arvigo and Balick (1993), who acknowledge that at 250 mg/kg, the 100% ethanolic extract has antihyperglycemic activity (preventing a raising of blood sugar) and at 500 mg/kg it had hypoglycemic activity (lowering blood sugar) in experimental mice. Mind you that would be 25 and 50 g, close to 1 or 2 ounces, respectively, for me, if I am down to my target of 100 kg. Preliminary studies in Bolivia and Guatemala confirm antimalarial activity for aqueous extracts (MPG). Extracts, fractions, and sesquiterpene lactones were active *in vitro* against *Leishmania* spp. promastigotes, *Trypanosoma cruzi* trypomastigotes and epimastigotes, and *Trichomonas vaginalis* trophozoites. The ethanol extract inhibited the parasite growth of *L. mexicana*, *T. cruzi*, and *T. vaginalis* significantly (X11406857). Of 11 Guatemalan medicinal plants screened for macrofilaricidal activity against *Brugia pahangi*, *Neurolaena lobata* showed the strongest activity against the motility of adult worms. The movement of females ceased at 4 days at 50 µg/ml but male motility of males was just reduced. Ethanol extracts have potential filaricidal activities (X15831109).

**TREE TOBACCO (*Nicotiana glauca* Graham) +  
SOLANACEAE**

**Synonyms:**

*Nicotiana glauca* Graham var. *angustifolia* Comes; *N. glauca* Graham var. *grandiflora* Comes; fide (POR).

**Common Names:**

Gandul (Sp.; POR); Guang Yan Cao (China; POR); Kidachi Tabako (Japan; POR); Tabaco Moro (Sp.; POR); Tabaco Moruno (Sp.; POR); Tabaco Negro (Sp.; POR); Tree Tobacco (Eng.; POR; USN); Wildetabak (Afrikaans; USN); Wild Tobacco (Eng.; USN).

**Activities:**

Hepatoprotective (1; X12413719); Hypertensive (1; X10382003); Mosquitofuge (1; X15374613); Nauseant (1; X10382003); Neuromuscular Blocker (1; X10382003); Purgative (1; X10382003); Respiroparalyzer (1; X10097380; X10382003); Spasmogenic (1; X10382003); Toxin (1; X10097380; X10382003; 10855991; X12175951; X16488116).

**Indications:**

Jaundice (f1; X12413719); Low Blood Pressure (1; X10382003).

**Dosages:**

FNFF = ?

- Eritrea locals use as mosquitofuge (X15374613).
- Jordanians consider it hepatoprotective, using to treat jaundice (X12413719).

**Downsides:**

Toxic! Anabasine, a toxic alkaloid (X12175951), is a nicotinic receptor agonist toxin (X16488116). Anabasine is considerably more toxic than nicotine; poisoning is nicotine-like with death occurring from respiratory paralysis (X10097380). Viscera samples from a mother and child who died from food poisoning detected anabasine, confirming the fatalities were due to eating *N. glauca* that had been accidentally collected with traditional spinach (marog) (X12175951). Two other poisonings were reported in Thailand after eating the cooked leaves, which also had been mistaken for another spice; both collapsed, one with asystolia (X10855991). Other cases of anabasine poisoning reported with bulbar palsies, flexor muscle spasm, hypertension, motor paresis, nausea, respiratory compromise, and vomiting (X10382003). Death by respiratory paralysis reported after drinking water extract of the plant (X10097380). As of July 2007, the FDA Poisonous Plant Database listed 88 titles alluding to toxicity of this species.

**Extracts:**

Hot water extract mosquitofuge with 50% repellence at 1.72 microl/cm(2) (X15374613). Total serum bilirubin level was reduced with non-boiled aqueous leaf extract at 4 ml/kg rat; flower extract had no effect (X12413719).

## TOBACCO (*Nicotiana tabacum* L.) X

### SOLANACEAE

**Illustrations:**

fig 215 (IED)

**Synonyms:**

*Nicotiana angustifolia* Mill.; *N. chinensis* Fisch. ex Lehm.; *N. latissima* Mill.; *N. macrophylla* Spr.; *N. tabacum* L. var. *macrophylla* (Lehm.) Schrank; *N. virginica* Agardh.; fide (POR; USN).

**Notes:**

Strange, but usually when I go through Peruvian common names for plants in Egg (1999), Rutter (1990), and Soukup (1970), they are often very similar with a whole lot of overlap, but when I did common American species like potato and tobacco, there was very little repetition (EGG; RAR; SOU). Most of Austin's (AUS) interesting names mean simply tobacco. These common names probably would average fewer letters than most. I have a saying, the shorter the name, the more important the plant. Some once believed to be the greatest medicine of all. And even in his *Plants Used Against Cancer*, the NCI's great

late Jonathan Hartwell (1906–1991) even devoted a full page to tobacco as a old remedy for cancer, carcinoma, carnosities, cirrhosis, indurations, polyps, and warts (now, when abused, perhaps our biggest killer).

Once I snippily said that if we blame all ephedrine (synthetic and natural) deaths (still fewer than 100 per year) on the herb *Ephedra* (some species of which contain no ephedrine), then we should blame all salicylate-induced deaths (8,000–20,000 NSAID deaths a year) on the herb *Salix*. But I should then tread on the real killer. And it is the herb *Nicotiana*, perhaps more than it is the toxin nicotine. Strangely no one has ever jumped up and challenged me with the deaths due to tobacco (probably many of the cancer and cardiopathic fatalities are attributable to *Nicotiana*, which arguably could be called an herbal medicine). But as with ephedrine, it is misuse of the herb that kills. There are high and low nicotine tobacco plants and cigarettes, and all can kill if abused. I do not recommend tobacco for any medicinal use except perhaps in ridding oneself of botflies. Two of my Amazonian buddies brought botfly larvae home with them. But in all my six years kicking around the tropical America, I had yet to experience a botfly. Maybe that's because most of my years were during my 3-pack-a-day habit, adding up to 90 pack years. I don't really deserve to be alive at 76, when one considers that many of those pack years were synergized by cheap Panamanian rum, vodka, or gin (JAD).

#### Common Names:

Ahisi (Alabama; AUS); Aka (Nic.; Sumu; AUS); Akomi (Mikasuki; AUS); Cauai (Ma.; JFM); Chandi (Dakota; AUS); Charhû (Tuscarora; AUS); Chiri (Ashaninka; Campa; Peru; EGG); Chiri Tseri (Ashaninka; Campa; Peru; EGG); Chomak (Chickasaw; AUS); Cutz (Maya; JFM); Cuutz (Maya; JFM); Erba Regina (It.; EFS); Erba Tornabona (It.; EFS); Erva Santa (Por.; EFS); Fumo (Por.; AVP); Fumo Commum (Por.; AVP); Hece (Muskogee; AUS); Henbane of Peru (Eng.; JLH); Herb à la Reine (Fr.; AVP); Hici (Creek; AUS); Hici Pvkpvki (Creek; AUS); Hini (Timicua; AUS); I'pa (Catawba; AUS); Iri (Piro; Peru; SOU); Istewaw (Cree; AUS); I'tci (Yuchi; AUS); Iúri (Garifuna; Nic.; EB50:71); Kshátey (Delaware; AUS); Kuutz (Maya; AUS); Lapscon (Arikara; AUS); Mannah Sha (Mandan; AUS); Morqona (Bol.; Callawaya; DLZ); Nicotiane (Fr.; AVP); Non-Ni-Hi (Osage; AUS); Ojenqua (Onondaga; AUS); Paich (Chiquitano; DLZ); Paimbá (Huachipaeri; MD2); Pai'mba (Amarakaeri; MD2); Peenti (Chiriguano; DLZ); Petim (Por.; AVP); Petima (Cocama; SOU); Petum (Por.; AVP); Petume (Brazil; Tupi; AUS); Petun (Fr.; AVP); Pinaji (Ma.; JFM); Pistacan (Blackfoot; AUS); Pori (Tikuna; SOU); Punche (N. Mex.; AUS); Rombo (Amahuaca; MD2); Rome (Shipibo/Conibo; MD2); Romu (Amahuaca; EGG; RAR); Rume (Cashibo; EGG); Sairi (Peru; EFS; EGG); Sayri (Aym.; Bol.; Que.; DLZ); Se'ma (Potawatomi; AUS); Seri (Huachipaeri; Matsigenka; Peru; EGG; MD2; RAR); Shahuano (Inambari; EGG); Shiña (Yamamadi; EGG; RAR); Ssina (Culina; EGG; RAR); Taaba (Sudan; AVP); Tabac (Fr.; Haiti; AVP; USN); Tabacco (It.; EFS); Tabacco di Virginia (It.; AVP); Tabac Commun (Fr.; USN); Tabac Mannoque (Haiti; AVP); Tabaco (Cuba; Ese'eja; Por.; Sp.; AUS; EFS; MD2; USN); Tabaco Bobo (Ma.; JFM); Tabaco de Oler (Dor.; AUS); Tabak (Den.; Dutch; Ger.; AVP; EFS; USN); Tac (Ofo; AUS); Tambacu (India; EFS); Tamrakuta (Sanskrit; EFS); Tanbak (Arab.; EFS); Theyamah (Pawnee; AUS); Tobacco (Bel.; Eng.; Scn.; AH2; BNA; CR2; USN); Tombaca (Gaelic; AUS); Tsaang (Aguaruna; SOU); Tsa'lu (Cherokee; AUS); Tsiña (Deni; EGG); Tsit (Atakapa; AUS); Tütün (Arab.; EFS); Twahko (Miskito; Nic.; AUS); Uar (Cuna; Pan.; IED); Uenaña (Ma.; JFM); Upook (Powhatan; AUS); Uppówoc (Algonquian; AUS); Virginischer Tabak (Ger.; AVP); WX'ru (Hon.; Paya; AUS); Yan Cao (Pin.; DAA); Yani' (Biloxi; AUS); Yapo (Ma.; JFM); Yemats (Amuesha; Yanesha; EGG; RAR); Yen Ts'ao (China; EFS); Yerba de la Reina (Ma.; JFM); Yerba del Embajador (Ma.; JFM); Yerba del Gran Prior (Ma.; JFM); Yetl (Mex.; Nahuatl; AUS); Yiri (Piro; Yine; EGG; MD2; RAR); Zèb a la Rèn (Haiti; AUS).

**Activities:**

Acaricide (f; JFM); Analgesic (f; CRC); Anorectic (f; CRC); Anticonvulsant (f; DEM); Antidote (f; CRC); Antidote (lead) (f; FEL); Antiparasitic (1; UPW); Antiseptic (1; FEL; MD2); Antispasmodic (f; CRC; FEL); Aphrodisiac (f; EGG); Cathartic (f; DEM); CNS-Stimulant (1; CRC; PH2); Convulsant (f; CRC); Curare (f; HDN); Deobstruent (f; JTR); Depressant (f; CRC); Discussant (f; EFS; FEL); Diuretic (f; DEM); Emetic (f; CRC; DEM; EFS); Expectorant (f; DEM; FEL; JAH2(2):45); Febrifuge (f; JFM); Fumitory (1; CRC); Fungicide (f; UPW); Hemostat (f; DEM); Hypertensive (1; PHR; PH2); Hypotensive (1; PHR; PH2); Insectifuge (f; UPW); Intoxicant (f; CRC); Larvicide (f; JFM; MD2); Laxative (f; CRC; EFS); Molluscicide (1; CRC); Narcotic (1; CRC; EFS); Parasiticide (1; CRC); Pediculifuge (f; JTR); Piscicide (f; CRC; HDN); Poison (1; PH2); Psychedelic (f; CRC); Purgative (f; CRC); Respirostimulant (1; PH2); Sedative (f; CRC; EFS); Sialagogue (f; EFS; FEL; JTR); Vermifuge (1; CRC).

**Indications:**

Abscesses (f; DLZ); Adenopathy (f; FEL); Ague (f; DEM); Alopecia (f; JTR); Angina (f; PH2); Asthma (f; CRC; FEL; ZIM); Backache (f; CRC; JFM); Bile (f; PH2); Bites (f; DEM; JFM; PH2); Bleeding (f; DEM); Boils (f; CRC; DEM; FEL); Botfly (f; MD2); Bruises (f; JFM); Bubo (f; FEL); Cancer (f; CRC); Cancer, colon (f; JLH); Cancer, nose (f; JLH); Carcinoma (f; CRC); Caries (f; PH2; UPW); Catarrh (f; CRC); Cerebrosis (f; FEL); Chancre (f; UPW); Childbirth (f; CRC; FEL); Cholecocystosis (f; CRC); Cholera (f; FEL); Cirrhosis (f; CRC; JLH); Colds (f; CRC; EGG); Colic (f; JFM; MD2); Conjunctivitis (f; MD2); Constipation (f; FEL); Coughs (f; CRC; FEL); Cramps (f; DEM); Croup (f; FEL); Debility (f; CRC); Dermatitis (f; CRC; FEL; PH2); Diarrhea (f; PH2); Dropsy (f; DEM); Dysentery (f; CRC; EGG; FEL); Dysmenorrhea (f; JTR); Dyspnea (f; UPW); Earache (f; AUS; CRC; DEM; PH2); Enterosis (f; JTR); Epididymitis (f; FEL); Epilepsy (f; HDN; UPW); Epistaxis (f; CRC); Erysipelas (f; FEL); Fever (f; JFM); Filaria (f; UPW); Flu (f; CRC); Fungus (f; UPW); Gangrene (f; UPW); Gastrosis (f; CRC; EGG); Gout (f; FEL); Guinea Worm (f; HDN); Headache (f; CRC; JFM; JTR; MD2); Head Colds (f; CRC); Hemorrhoids (f; FEL; HDN; JTR; UPW); Hepatosis (f; MD2); Hernia (f; PH2); Hiccups (f; FEL); Hysteria (f; FEL); Impotence (f; EGG); Infection (1; UPW); Inflammation (f; FEL); Itch (f; FEL; UPW); Laryngitis (f; FEL); Lethargy (f; CRC); Lice (f; JFM); Lumbago (f; CRC); Malaria (f; CRC); Mange (f; JFM); Menorrhagia (f; CRC); Myalgia (f; DLZ); Mycosis (f; UPW); Nausea (f; PH2); Neuralgia (f; FEL; JFM); Ophthalmia (f; HDN; MD2; ZIM); Orchosis (f; FEL); Pain (f; JFM; PH2); Paralysis (f; CRC; JTR); Parasites (1; FNF; PH2; UPW); Pediculosis (f; CRC); Polyps (f; JLH); Proctosis (f; HDN); Prolapse (f; HDN); Respirosis (f; FEL; UPW); Rheumatism (f; CRC; DEM; FEL; JFM); Rhinosis (f; JLH; PH2); Ringworm (f; UPW); Scabies (f; CRC; FEL; HDN); Scirrhus (f; CRC; JLH); Scrofula (f; DEM; FEL); Snake Bite (f; CRC; JFM); Sores (f; CRC; JFM); Spasms (f; CRC); Stings (f; CRC; PH2); Stomachache (f; CRC; EGG); Swelling (f; CRC; PH2); Syncope (f; DEM); Tetanus (f; CRC; DEM; FEL; JTR); Threadworm (f; HDN); Toothache (f; CRC; PH2); Tsetse (f; UPW); Tuberculosis (f; DEM); Tumors (f; CRC); Ulcers (f; CRC); Vertigo (f; DEM); Warts (f; HDN; ZIM); Worms (f; PH2); Wounds (f; CRC; JFM).

**Dosages:**

FNFF = ? Though chewed, it can hardly be considered a food.

- Bolivians make a pomade with the leaf decoction and lard for cramps, itch, mange, myalgia, and neuralgia, washing sores and wounds with the leaf tea (DLZ).
- Brazilians soak leaves in booze or oil and use on bruises or wounds (JFM).
- Cubans apply leaves to forehead for headache, smoking the leaves for asthma (JTR).

- Curaçaoans wash head with extract of chewing tobacco for head lice (JFM).
- Gringoes sometimes blow tobacco smoke into pediatric earaches (AUS).
- Jamaicans use tobacco smoke as analgesic in toothache (JFM).
- Madre de Dios Peruvians paste the leaf with grated *Dracontium* tuber on bot flies (MD2).
- Madre de Dios Peruvians plaster heated leaves over bugbites or ray stings, and on forehead for headache (MD2).
- Madre de Dios Peruvians take leaf tea for liver colic (MD2).
- Peruvians use for earache, headache, and stomachache (EGG).
- Trinidad natives inhale steam from urine leaf extract for head colds (JFM).
- Yucatanese apply the leaf tincture to rheumatic pains and neuralgia (JFM).
- Yucatanese soak leaves in alcohol or methyl salicylate and tie around waist for backache (JFM).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed 210 titles alluding to toxicity of this species.

**Extracts:**

Interesting to see that tincture is recommended for “wandering and fixed acute rheumatism” (sounds like my Lyme arthrosis) (FEL).





# O

## BALSA (*Ochroma pyramidale* (Cav. ex Lam.) Urb) ++

### BOMBACACEAE

#### Illustrations:

fig 154 (L&W); fig 217 (IED); pl 122c (DAG)

#### Synonyms:

*Bombax pyramidale* Cav. ex Lam. (basonym); *Ochroma bicolor* Rowlee; *O. boliviana* Rowlee; *O. concolor* Rowlee; *O. grandiflora* Rowlee; *O. lagopus* Sw.; *O. limonensis* Rowlee; *O. obtusa* Rowlee; *O. peruviana* Rowlee; *O. pyramidale* (Lam.) Urban; *O. pyramidale* (Cav.) Urban; *O. tomentosa* Willd.; *O. velutina* Rowlee; fide (POR; USN).

#### Notes:

When I get a lot more names than medicinal applications for a plant, I figure medicine is not its main utility. This one is marginally medicinal at best.

#### Common Names:

Algoodón (Sal.; L&W); Apiwa (Peru; SOU); Bai Se Mu (China; POR); Bai Shai Mu (China; POR); Balsa (Brazil; Den.; Ecu.; Eng.; Sp.; DAG; IED; USN; VOD); Balsa Caspi (Peru; EGG; RAR); Balsahaut (Dutch; POR); Balsaholz. (Ger.; POR); Balsapuu (Fin.; POR); Balsas Topa (Peru; RAR); Barusa (Japan; POR); Bois de Balsa (Fr.; POR); Bois Flot (Fwi.; Guad.; Mart.; St. Lucia; Trin.; L&W); Bois Liège (Guad.; L&W); Bois Lièvre (Guad.; L&W); Bois Madame (Haiti; AHL); Bois Pripri (Guad.; L&W); Bolsa (Eng.; UPW); Bombast Mahoe (Jam.; L&W); Boya (Ecu.; DAG); Cajeto (Guat.; AVP); Cambomboro (Ma.; JFM); Ceiba de Lana (Col.; IED); Ceibón Botija (Cuba; L&W); Ceibón Lanero (Cuba; Ma.; JFM; L&W); Chinchipá (Ashaninka; Campa; Peru; EGG; RAR); Corcho (Guat.; Mex.; L&W); Corkwood (Eng.; USN); Coton Fleurs (Haiti; L&W); Coton Mahaudème (Haiti; AHL); Coton Soie (Haiti; AHL); Coton Violet (Ma.; JFM); Cotton Tree (Eng.; Ma.; IED; JFM); Downtree (Jam.; L&W); False Cork Tree (Eng.; L&W); Fromager Mapou (Guad.; Mart.; AVP; L&W); Gatillo (Nic.; L&W); Gonote Real (Mex.; AVP); Guano (Guat.; Hon.; L&W); Huambu Caspi (Peru; Que.; EGG; RAR); Huambuna (Peru; Que.; EGG; RAR); Huampo (Peru; RAR); Jellma (Peru; SOU); Jonote Real (Ma.; JFM); Jopi (Ma.; JFM); Jubiguy (Ma.; JFM); Jujul (Guat.; L&W); Kina Kina (Aym.; EGG; RAR); Koon Swa (Creole; Haiti; VOD); Lana (Dor.; Guat.; Pan.; IED; L&W); Lana Vegetal (Dor.; AVP); Lanero (Cuba; Dor.; L&W; RyM); Lanilla (Guat.; L&W); Legno di Balsa (It.; POR); Madeira de Balsa (Por.; POR); Madera de Balsa (Sp.; POR); Mahaudème (Haiti; AVP; L&W); Maho (Mex.; AVP); Mahodèm (Creole; Haiti; VOD); Mapala (Piro; RAR); Mapalo (Piro; EGG); Maraudème (Haiti; AHL); Momaah (Mex.; AVP); Mussó Jihui (Pano; EGG; RAR); Musu (Shipibo/Conibo; EGG; RAR); Muxú (Cashibo; EGG; RAR); Palo Balsa (Peru; EGG); Palo de Balsa (Sp.; RAR); Palo de Bova (Ven.; AVP); Palo de Corcho (Ma.; JFM); Palo de Lana (Sp.; L&W); Pañañuro (Peru; SOU); Paroto (Ashaninka; RAR); Pata de Lobre (Brazil; USN); Pata de Liebre (Ma.; JFM); Patte de Lapin (Guad.; Mart.; AVP); Patte de Lièvre (Fr.; UPW); Patte Lapin (Guad.; L&W); Pau de Balsa (Brazil; RAR); Pau de Bolsa (Brazil; USN); Pau de Jangada (Brazil; RAR; USN); Polak (Bel.; Nic.; AVP);

BNA; L&W); Pomoy (Ma.; JFM); Pripri (Guad.; Mart.; AVP); Puro (Pan.; IED); Puh (Gaut.; AVP); Puma Cuchu (Peru; SOU); Qing Mu (China; POR); Shintipa (Ashaninka; Campa; EGG; RAR); Sinti (Nomatisiguenga; RAR); Tacarigua (Ma.; JFM); Tambor (Hon.; L&W); Tamí (Bol.; AVP); Topa (Brazil; Peru; Sp.; EGG; LOR; USN); Topa Puma Cuchu (Peru; Sp.; LOR); Tucumo (Col.; IED); Uampu (Peru; SOU); Wawa (Peru; SOU). (Nscn; American entries diacritically prepared).

**Activities:**

Antiedemic (f; JFM); Aperient (f; WOI); Diuretic (f; WOI); Emetic (f; MPB); Febrifuge (f; VOD).

**Indications:**

Arthrosis (f; VOD); Bronchosis (f; VOD); Colds (f; JFM); Colic (f; VOD); Coughs (f; VOD); Delirium (f; JFM); Diarrhea (f; EGG; VOD); Edema (f; JFM); Fever (f; VOD); Flu (f; VOD); Headache (f; JFM); Infection (f; VOD); Neuralgia (f; JFM); Pain (f; VOD); Pulmonosis (f; VOD); Rheumatism (f; VOD).

**Dosages:**

FNFF = ?

- Brazilians suggest the root bark as emetic (MPB).
- Brazilians use root decoction to calm patients delirious with fever (JFM).
- Guatemalans employ bark decoction (½ handful boiled 5 min in a liter water) as diuretic and sudorific (JFM).
- Haitians apply crushed leaf juice in compresses on neuralgic headache (JFM).
- Haitians drink fruit juice for bronchitis, chest ailments, dry coughs, and flu (AHL; VOD).
- Haitians drink stem bark decoction for fever, the root bark for colic and diarrhea (VOD).
- Haitians mix leaves with castor oil to rub on arthritic pain and rheumatism (AHL; VOD).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**PERUVIAN BASIL (*Ocimum campechianum* Mill.) ++**

**LAMIACEAE**

**Synonyms:**

*Ocimum micranthum* Willd.; fide (USN).

**Notes:**

Some people (AVP; GMJ) list *Ocimum americanum* Auct as synonym. Here I aggregate the data that Rutter (1990) listed for *Ocimum americanum* (RAR).

**Common Names:**

Abaca (Peru; EGG; SOU); Albaca (Ma.; Peru; Sp.; JFM; LOR; MDD); Albaca Silvestre (Peru; EGG; SOU); Albahaca (Col.; Peru; EGG; SAR); Albahaca Cimarrona (Cuba; Dor.; Pr.; AVP; JFM); Albahaca de Clavo (Sp.; JFM); Albahaca de Gallina (Hon.; Sal.; Sp.; MPG); Albahaca de Monte (Nic.; Sp.; JFM; MPG); Albahaca de Vaca (Sp.; JFM); Albahaca Montes (Sp.; JFM); Albahaca Silvestre (Sp.; JFM); Alfavaca (Brazil; MPB); Alfavaca do Campo (Brazil; MPB); Alvaca (Col.; SAR); Alvaca Sylvestre (Peru; EGG); Asil (Peru; EGG); Atiyayo (Dor.; AHL);

Atiyoyo (Dor.; AHL); Baisley (Ma.; JFM); Balm (Ma.; JFM); Barsley (Bel.; BNA); Basilic Fombazin (Creole; Guy.; GMJ); Basilique (Haiti; AVP); Basilique Grand Feuilles (Haiti; AVP); Basissan (Palikur; GMJ); Basu (Bel.; BNA); B'enk (Bel.; BNA); Cacaltum (Ma.; JFM); Cal Cal Tun (Bel.; BNA); Duppy Basil (Ma.; JFM); Fombasin (Haiti; AVP); Fonbasin (Wi.; TAD); Fonboysa (Wi.; TAD); Foubasin (Ma.; JFM); Framboisin (Creole; Guy.; GMJ); Framboisin Sauvage (St. Bart.; AVP); Franc Basin (Haiti; AVP; JFM); Frombasin Marron (Haiti; AHL); Fweroro (Peru; SOU); Garawa (Piro; RAR); Gonomanya (Siona; SAR); Grand Basilic (Fr. Guy.; AVP); Grand Framboisin (Haiti; AHL); Hierba do Toro (Ma.; JFM); Huoca (Tikuna; SAR); Iroero (Peru; EGG; SOU); Ishbnk (Bel.; BNA); Jumbie Balsam (Ma.; JFM); Kakaltum (Mex.; AVP; JFM); Kekeiten (Bel.; BNA); Konomanya (Secoya; SAR); Mangericao Grande (Brazil; MPB); Married Man Pork (Eng.; FAC); Mosquito Bush (Ma.; JFM); Nunn Balsam (Ma.; JFM); Paasili (Wayãpi; GMJ); Peruvian Basil (Eng.; FAC); Pichana Alvaca (Peru; EGG; SOU); Pichana Blanca (Peru; EGG; SOU); Pot Margin (Ma.; JFM); Quici-Cquici (His.; AHL); Ratz Umcan n (Bel.; BNA); Remedio de Vaquero (Por.; GMJ); Salvaca (Peru; EGG; SOU); Shara Masha (Ma.; JFM); Shara Mashan (Peru; EGG; RAR; SOU); Shíe Shíe (Ese'eja; MD2); Smeri Wiwiri (Ma.; JFM); Spice Basil (Eng.; TAD); Sweet Marjoram (Eng.; AVP); T'eb (Bel.; BNA); Toronjil Colombiana (Ma.; JFM); Vii Roro (Amahuaca; EGG; RAR); Wild Barsley (Ma.; JFM); Wild Basil (Bel.; Eng.; BNA; DAV); Wiroró (Amahuaca; Shipibo/Conibo; MD2); Wiroro Nawan Rao (Shipibo/Conibo; MD2); Wiroroshi (Matsigenka; MD2); Wurolo (Piro; Yine; MD2); X-Cacaltun (Ma.; JFM). (Nscn).

### Activities:

Analgesic (f; DAW); Antiasthmatic (f; MPB); Antidote (1; JE73:233); Antiemetic (f; RAR); Antiinflammatory (f; SAR); Antioxidant (1; PR17:325; X15161220); Antiradicular (1; PR17:325); Antiseptic (f1; DAW); Antispasmodic (f; MPB); Antivenom (1; JE73:233); Bactericide (f1; EB30:137); Carminative (f; DAW; MPB); Collyrium (f; EB30:137); Contraceptive (f; MD2); Diaphoretic (f; MPB); Diuretic (f; DAW; MPG); Emmenagogue (f; DAW; RAR); Expectorant (f1; DAW; EB30:137); Febrifuge (f; DAW); Fungicide (1; X15161220); Hallucinogenic (f; DAV); Hypotensive (f; JFM; MPG); Lacrimate (f; EB30:137); Larvifuge (f; JFM); Negative Chronotropic (1; MPG); Sedative (f; MPG); Stimulant (f; JFM); Stomachic (f; DAW); Tranquilizer (f; MPG); Vermifuge (f; EB25:241).

### Indications:

Alopecia (f; EGG); Aphtha (f; DAW); Asthma (f; MPB); Bites (f; EGG; MPB); Botfly (f; MD2); Bronchosis (f; EGG; MD2; MPB); Cardiopathy (f; MPG); Catarrh (f; DAW; MPG); Childbirth (f; DAW; JFM; RAR); Colds (f; DAW); Colic (f; EGG; GMJ; MD2); Conjunctivitis (f; EGG; MD2; SAR); Convulsions (f; JFM); Coughs (f; EGG; MD2; MPB); Cramps (f; MPB); Dullness (f; DAW); Dysentery (f; JFM); Dysmenorrhea (f; JFM); Earache (f; DAW; JFM; MD2); Fever (f; DAW; EGG; MD2); Flu (f; EB30:137; EGG; GMJ; MD2); Fungus (1; X15161220); Gastro-sis (f; DAV); Gout (f; JFM); Headache (f; DAW; RAR); High Blood Pressure (f1; JFM; MPG; X17040567); Infection (1; X15161220); Inflammation (f; SAR); Malaria (f; MPG); Nausea (f; RAR); Nervousness (f; MPG); Ophthalmia (f; EB30:137; MD2); Pain (f; DAW; MD2); Pertussis (f; MPB); Rabies (f; EB24:361); Rheumatism (f; DAW; MPG); Snake Bite (1; JE73:233); Sores (f; MPG); Stings (f; DAV); Stomachache (f; DAV; DAW); Stomatosis (f; DAW); Toothache (f; MPG); Tuberculosis (f; EGG; MPG); Urethrosis (f; MD2); Vertigo (f; DAW); Worms (f; EB25:241).

### Dosages:

FNFF = !! Leaves used as spice and tea. Barbadians add leaves to soups and boil it with milk (JFM). 1 cup tea (1 tsp leaf/cup water) 3x/day for catarrh, cold, diarrhea, earache, rheumatism, and stomachache. Leaf used as drops in eyes for eye inflammation (SAR)

- Antiguans use decoction for pediatric bronchosis, colic, and convulsions (JFM).

- Barbadians use plant decoction for colds and painful menstruation (JFM).
- Hondurans cook the root with anise and honey for pains of coughing and the heart (MPG).
- Madre de Dios Peruvians apply mashed leaves to botfly larvae 15–30 min before squeezing out the “sutoto” or “tornillo” (MD2).
- Panamanians take the shoot infusion for colds, dysmenorrhea, headache, and water retention (MPG)
- Peruvians suggest a basil infusion or sirup for bronchosis, colic, coughs, fever, and flu (EGG).
- Peruvians suggest the decoction for tuberculosis (EGG).
- Peruvians wash the hair with the potlikker for falling hair (EGG).
- Salvadorans stuff leaves in ear for earache (JFM).
- Salvadorans use for gastrostis, headache, nervousness, and tuberculosis (MPG).
- Tikuna reduce fever by washing heads in infusion of crushed leaves (SAR).
- Trinidadans use for high blood pressure (X17040567).
- Trinidadans use infusion for eyewash and leaf decoction for flu (JFM).

#### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

#### Extracts:

EO exhibited remarkable antioxidant capacity, comparable to that of Trolox and vitamin E, and dose-dependent antifungal activity (X15161220).

### PRICKLY PEAR (*Opuntia ficus-indica* (L.) Mill.) ++

#### CACTACEAE

#### Illustrations:

p 156 (AAB)

#### Synonyms:

*Cactus decumanus* Willd.; *C. ficus-indica* L.; *Opuntia amyclaea* Ten.; *O. cordobensis* Speg.; *O. decumana* (Willd.) Haw.; *O. ficus-indica* var. *gymnocarpa* (F. A. C. Weber) Speg.; *O. gymnocarpa* F. A. C. Weber; *O. hispanica* Griffiths; *O. maxima* Mill.; *O. megacantha* Salm-Dyck; *O. paraguayensis* K. Schum.; fide (USN).

#### Notes:

I like one of Dan Austin's comments so well that I repeat it here. “Although cattle ranchers hate them, prickly pears are groceries and farmacies hiding behind spines” (AUS). When humans or coyotes eat the fruits, their stools become red with betalins (AUS). Some of the AUS citations below apply to Florida species, and I believe that they will apply to our Latino “prickly pear” as well.

#### Common Names:

Aferoug (Ber.; BOU); Alquitira (Dor.; AHL); Amizzur (Ber.; BOU); Barbary Fig (Eng.; USN); Boereturksvy (S. Afr.; USN); Cactus Raquette (Fr.; BOU); Chai Pe (Peru; Shipibo/Conibo; EGG); Chumba (Sp.; USN); Chumbera (Sp.; USN); Feigen Kaktus (Ger.; USN); Figo da Espanha (Brazil; USN); Figueira de Barbária (Por.; USN); Figueir de Barbarie (Fr.; BOU); Figueir de l'Inde (Fr.; BOU; USN); Figueir Nopal (Fr.; BOU); Grootdoringturksvy (S. Afr.; USN); Hendi (Arab.; BOU); Higo Chumbo (Cuba; Dor.; AHL; JTR); Hendi (Arab.; BOU); Hsien Jên Chang (China; TAN); Ihader (Ber.; BOU); Indian Fig (Eng.; Ocn.; AH2;

BOU; USN); Indian Fig Prickly Pear (Eng.; USN); Jurumbeba (Brazil; USN); Karmouz En-Nsara (Arab.; BOU); Mission Cactus (Eng.; USN); Mission Fig (Eng.; USN); Mission Prickly Pear (Eng.; USN); Nopal (Bel.; Ocn.; Sp.; AAB; AH2); Nopal Pelón (Sp.; USN); Nosis (Bol.; Chiquitano; DLZ); Nowara Hindia (Arab.; BOU); Nowaret el-Karmouz (Arab.; BOU); Ôgata-Hôken (Japan; TAN); Orelha-de-Onça (Brazil; USN); Palma-de-Gado (Brazil; USN); Palma-Gigante (Brazil; USN); Prickly Pear (Eng.; Scn.; CR2); Pupa (Peru; EGG); Raquette (Haiti; AHL); Saini (Chiriquana; BOL); Scoggeineal (Bel.; AAB); Seurti (Arab.; BOU); Smooth Mountain Prickly Pear (Eng.; USN); Smooth Prickly Pear (Eng.; USN); Sobbaira (Ber.; BOU); Spineless Cactus (Eng.; USN); Sweet Prickly Pear (S. Afr.; USN); Tihendit (Ber.; BOU); Tin Shawki (Arab.; BOU); Troumoucht (Ber.; BOU); Tuberos Prickly Pear (Eng.; USN); Tuna (Bel.; Cuba; Ocn.; Peru; Sp.; AAB; AH2; CR2; EGG); Tuna Cactus (Eng.; USN); Tuna de Castilla (Sp.; USN); Tuna Mansa (Cuba; JTR; USN); Tunasa (Aym.; Bol.; Que.; DLZ).

### Activities:

Analgesic (f1; AUS; DAV; EGG); Antiaggregant (1; X12878452); Anticonvulsant (f; EGG); Antiinflammatory (1; AUS; X15226168); Antioxidant (1; AUS; JAF51:4903); Antiplatelet (1; X12878452); Antiseptic (1; AUS); Antitussive (f; EGG); Antiulcer (1; AUS; JAF51:4903); Antiviral (1; AUS); Astringent (f; BOU; EFS); Curare (1; HDN); Decongestant (f; DAW); Diuretic (f1; JE79:17; WOI); Emollient (f; BOU; WOI); Fungicide (1; AUS); Gastroprotective (1; JAF51:4903); Hypocholesterolemic (1; AUS; X12878452); Hypoglycemic (1; X14699912); Hypouricemic (1; JE79:17); Kaluretic (1; JE79:17); Lipolytic (1; X12878452); MAO-B-Inhibitor (1; AUS); Natriuretic (1; JE79:17); Nephrotoxic (1; AUS); Neuroprotective (1; X12591129); Pectoral (f; EGG); Propepic (f; HDN); Sedative (f; DAV); Xanthine Oxidase Inhibitor (1; X12591129).

### Indications:

Abscesses (f; EGG); Acne (f; DLZ; JFM); Alopecia (f; AAB); Angina (f; DLZ); Arthrosis (f; AAB); Bleeding (f; BOU); Bruises (f; EGG); Burns (f; HDN); Callus (f; JLH); Child-birth (f; AAB); Colic (f; BOU); Conjunctivitis (f; JFM); Convulsions (f; EGG); Corns (f; JLH); Coughs (f; EGG); Cystosis (f; AAB); Dermatitis (f; JFM); Diabetes (f1; AUS; DAV; X14699912); Diarrhea (f; BOU; DLZ; EFS; JFM); Dysentery (f; DLZ; EFS; JFM); Enterosis (f; JFM); Epistaxis (f; DAV); Erysipelas (f; EGG); Favus (f; DAW); Fever (f; AAB; JFM); Fracture (f; EGG); Fungus (1; AUS); Gastrosis (1; JAF51:4903); Gonorrhoea (f; BOU; JFM); Gout (1; JE79:17); Hangover (1; X15226168); Hemorrhoids (f; DAW); Hepatitis (f; DLZ; JFM); High Blood Pressure (f; AAB); High Cholesterol (f1; AUS; EGG; X12878452); Infection (1; AUS); Inflammation (f1; AUS; X15226168); Leprosy (f; EB33:3); Malaise (f; AAB); Measles (f; EB32:24); Mycosis (1; AUS); Nephrosis (f; DAW); Obesity (1; X12878452); Pain (f1; AUS; DAV; EGG; JFM); Prostatitis (f1; DAV; FNF); Pulmonitis (f; DLZ; JFM); Rabies (f; EGG; JFM); Radiation Burns (f; JFM); Rheumatism (f; DAV); Scald (f; EB27:215); Sores (f; EB27:215); Stomachache (f; JFM); Sunburn (f; EB27:215); Swelling (f; EGG; HDN); Toothache (f; DLZ); Tumors (f; EGG; JFM; JLF); Ulcers (f1; AUS; DAW; JAF51:4903); VD (f; BOU); Viruses (1; AUS); Warts (f; JLH); Wounds (f; HDN).

### Dosages:

FNFF = !!! Fruits and cactus pads eaten, cautiously, to avoid the glochids. Seeds swallowed whole or processed and consumed (TJE). Shows up in baked goods, beverages, cakes, ices, jams, liqueurs (e.g., Sabra), tarts, etc. Fermented pulp used in the Italian biscuit "mostaccioli di fichi d'India." The cleaned young pads (nopalitos), after boiling are consumed as a veggie in their own right, in omelettes, pickles, salads, and soups. Japanese make special dishes therefrom, narazyke, saboran, and saboten glace. Majorcan pigs, after consuming the prickly pears, acquire a special flavor of their own (FAC).

- Belizeans boil 1 pad in 3 cups water, drinking 1 cup each meal for fever, high blood pressure, and malaise (AAB).
- Bolivians drink the root decoction for diarrhea and dysentery (DLZ).
- Bolivians use the mucilage for cough, erysipelas, pulmonoses, and toothache (DLZ).
- Cubans recommend applying open sliced pad to radiation burns (JFM).
- Latinos poultice roasted pads on ailing liver and tumors (JFM).
- Latinos soak chopped pads overnight in water, then drink for diarrhea, even rabies, or used as collyrium in conjunctivitis, or applied topically to dermatosis, painful spots, or pimples (JFM).
- Latinos take roasted decoction for diarrhea, dysentery, and gonorrhea (JFM).
- Latinos take sweetened pad infusion for chest complaints and fever (JFM).
- Peruvians use pads for abscesses, blemishes, cough, erysipelas, fractures, high cholesterol, pain, rib ache, swelling, and tumors (EGG).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.

**PERUVIAN MISTLETOE (*Oryctanthus alveolatus* (Kunth) Kuijt) +  
LORANTHACEAE**

**Common Names:**

Pishco Isma (Peru; Sp.; LOR; MDD); Pishco Isman (Peru; RAR); Suelda con Suelda (Peru; Sp.; LOR; MDD). (Nscn).

**Activities:**

Antitumor (1; X16183284); VEGF-Inhibitor (1; X16183284); Vulnerary (f; DAV).

**Indications:**

Bruises (f; DAV); Cancer (1; X16183284); Childbirth (f; DAV); Dislocation (f; DAV); Fracture (f; DAV); Tumors (1; X16183284); Wounds (f; DAV).

**Dosages:**

FNFF = X.

**Extracts:**

70% aqueous methanolic extract of *Oryctanthus* sp. contains a saccharide of a diene alpha, omega-diacid which inhibits VEGF receptor (IC<sub>50</sub> = 5.0 μM) (X16183284).

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# P

## PROVISION TREE (*Pachira aquatica* Aubl) +++

### BOMBACACEAE

#### Illustrations:

p 136 (AAB)

#### Synonyms:

*Bombax macrocarpum* (Schltdl. & Cham.) K. Schum.; *Carolinea macrocarpa* Cham. & Schltdl.; *Pachira longifolia* Hook.; *P. macrocarpa* (Cham. & Schltdl.) Walp.; fide (USN).

#### Common Names:

Acamoyote (Ma.; JFM); Amapola (Ma.; JFM); Apompo (Mex.; JFM; PCS); Axiloxochitl (Maya; JFM); Bobo (Bel.; Sp.; AAB); Cacao Cimarrón (Dor.; AHL; JFM); Cacao de Playa (Ma.; JFM); Cacau Selvagem (Brazil; JFM); Carolina (Dor.; AHL); Castanheira das Guianas (Brazil; JFM); Castanheiro do Maranhao (Brazil; JFM); Castaño (Ma.; JRM); Castaño de Agua (Sp.; USN); Castaño de America (Ma.; JRM); Castaño de la Guayana (Sp.; USN); Castaño Silvestre (Sp.; JFM; USN); Ceiba (Ma.; JFM); Ceibón de Agua (Cuba; JFM; PCS); Ceibón de Arroya (Cuba; JFM; PCS); Chataigne Marrón (Fr.; JFM); Châtaigner Sauvage (Fr.; USN); Chilca Blanca (Ma.; JRM); Clavellina Blanca (Ma.; JRM); Colorado (Dor.; AHL); Cuyche (Maya; AAB); Embirucu (Ma.; JRM); Fruta de Mono (Ma.; JRM); Guacta (Ma.; JRM); Guiana-Chestnut (Eng.; USN); Guinea Chestnut (Eng.; FAC); Jelinjoche (Ma.; JRM); Kuy-Che (Maya; JRM); Litskoni (Ma.; JFM); Malabar-Chestnut (Eng.; NUT; USN); Mamarona (Ma.; JFM); Matozman (Ma.; JRM); Molitaua (Ma.; JRM); Noli (Ma.; JRM); Paina de Cuba (Ma.; JFM); Painera de Cuba (Ma.; JFM); Palo de Agua (Ma.; JFM); Palo de Boya Teton (Ma.; JFM); Piscande (Ma.; JFM); Piton (Ma.; JFM); Provision Bark (Bel.; BNA); Provision-Tree (Eng.; AAB; FAC; NUT; USN); Pumpumjuche (Sal.; PCS); Quiriguiullo (Ma.; JFM); Quirihuillo (Ma.; JFM); Quirihuio (Ma.; JFM); Saba (Ma.; JFM); Sabanut (Eng.; FAC; NUT; USN); Salero (Ma.; JFM); Santo Domingo (Bel.; AAB; BNA); Sapote Bobo (Bel.; BNA); Sapotón (Guat.; Sal.; PCS); Shila Blanca (Ma.; JFM); Sunzapote (Ma.; JFM); Tura (Ma.; JFM); Ture (Ma.; JFM); Uacoot (Maya; JFM); Uacut (Bel.; Maya; BNA); Water Chestnut (Eng.; JFM); Wild Chaitagne (Ma.; JFM); Wild Chestnut (Eng.; JFM); Xcuiche (Maya; JFM); Zapote Bobo (Mex.; PCS); Zapote de Agua (Mex.; PCS); Zapote Longo (Ma.; JFM); Zapote Negro (Bel.; BNA); Zapote Reventador (Mex.; PCS); Zapotón (Bel.; Guat.; Ma.; Sal.; BNA; JFM; PCS). (Nscn).

#### Activities:

Antiseptic (1; JFM); Narcotic (f; JFM).

#### Indications:

Anemia (f; AAB); Conjunctivitis (f; PCS); Debility (f; AAB); Diabetes (f; JFM); Hepatosis (f; JFM); Infection (1; JFM); Low Blood Pressure (f; AAB); Nephrosis (f; AAB); Old Age (f; AAB); Pain (f; AAB).



**Dosages:**

FNFF = ! Seeds eaten raw, roasted, fried in oil, or ground into flour for breadstuffs. Young flowers and leaves also cooked and eaten (AHL; FAC; JFM; PCS).

- Belizeans boil a strip of bark 1 × 4 inches in 3 cups water for 10 min, taking ½ cup 6×/day to build blood and strength (AAB).
- Belizeans cut the seed into quarters, boil 5 min in 1 cup water, drinking before breakfast 3 days in a row for kidney pain (AAB).
- Mexicans use flowers and leaves for eye inflammations (PCS).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**YAM-BEAN (*Pachyrhizus erosus* (L.) Urb.) ++****FABACEAE****Synonyms:**

*Cacara erosa* (L.) Kuntze.; *C. palmatiloba* (DC.) Kuntze; *Dolichos bulbosus* L.; *D. erosus* L.; *D. palmatilobus* DC.; *Pachyrhizus angulatus* Rich. ex DC.; *P. bulbosus* Kurz.; *P. erosus* var. *palmatilobus* (Moc. & Sessé ex DC.) R. T. Clausen; *P. palmatilobus* (DC.) ined.; *P. strigosus* R. T. Clausen; *P. bulbosus* (L.) Kurz.; fide (POR; USN).

**Notes:**

No standardized common name (according to POR): “Little linguistic distinction is made between *Pachyrhizus erosus* and *Pachyrhizus tuberosus* in almost any country. Most names applied to one could apply to the other although *P. erosus* is much more widely distributed around the globe. Therefore “new names” are called for” (POR). My answer to this call: I like to think of *P. tuberosus* as the “Amazon yam-bean,” and *P. erosus* as the “Mexican yam-bean.” Maybe Facciola (1998) has the better approach, he treats *P. tuberosus* as a synonym of *P. erosus*.

**Common Names:**

Achipa (Peru; AVP); Ashipa (Peru; DAV); Auyen (Dor.; AHL; AVP); Auyey (Dor.; AHL; AVP); Bai Tu Gua (China; POR); Bangkawang (Sundanese; POR); Bankowing (Sundanese; IHB); Bengkoewang (Dutch; POR); Bengkuang (Indonesia; Malaya; POR); Benkawang (Java; IHB); Benkuwang (Japan; Malaya; IHB; TAN); Besusu (Java; Malaya; POR); Carota de Caballo (Sp.; JFM); Cazotl (Maya; JFM); Chata de Agua (Sp.; JFM); Chicam (Sp.; JFM); Chikam (Sp.; JFM); Chop Suey Bean (Eng.; POR); Curdau (Vn.; POR); Cu San (Vn.; POR); Dam Long Krasang (Cam.; TAN); Dolico Bulboso (It.; POR); Dolique Bulbeuse (Fr.; POR); Dolique Bulbeux (Fr.; TAN); Dou Shu (China; POR); Fagiolo Patata (It.; POR); Fan Ge (China; POR); Four-Lobed-Root Yam Bean (Eng.; POR); Frijol Chuncho (Peru; AVP); Guavita Cansa Boca (Sp.; JFM); Habilla (Cr.; Pr.; AVP; IED); Hetich (Eng.; IHB); Hoewi Hiris (Dutch; POR); Hoewi Iris (Dutch; POR); Huapaekua (Thai; POR); Huwi Hiris (Java; IHB); Iguama (Tag.; POR); Jacatupé (Por.; POR); Jacutupé (Por.; POR); Jicama (Mex.; Sp.; JFM; POR; USN); Jicama de Agua (Sp.; JFM); Jicam a Dulce (Sp.; JFM); Jicamo (Sp.; AHL); Jiquima (Peru; Sp.; POR; RAR); Jocotupé (Por.; POR); Judía Batata (Sp.; POR; USN); Kachang Sengkuang (Malaya; POR); Kamias (Vis.; POR); Keshaura (Nepal; POR); Knollige Bohne (Ger.; POR); Köklü Böyrüce (Tur.; POR); Kuzu Imo (Japan; TAN); Liang Shu (China; POR); Madioc (Fr.; AHL); Maldioc (Fr.; AHL); Mame Imo (Japan; POR); Manioc Bean (Eng.; POR); Manioc Pea (Eng.; LEG); Mankaeo (Thai; POR); Man Keo (Thai; IHB); Man Lao (Thai; POR); Man Ph’au (Laos; POR); Mechenchikam (Ma.; JFM); Mengkuwang (Malaya; POR); Menkuwang (Malaya; IHB; POR); Mexican Turnip (Eng.; FAC); Mexican Water Chestnut (Eng.; FAC); Mexican Yam Bean (Eng.; POR); Mishrikand

(Hindi; India; POR; USN); Nupe (Sp.; Ven.; AVP; JFM); Nupera (Sp.; Ven.; AVP; JFM); Patate Cochon (Fr.; USN); Patete Cochon (Fwi.; AVP; USN); Patte la Couete (Fr.; AHL); Pe'kuëk (Khmer; POR); Pois Cochon (Fr.; Haiti; AHL; AVP); Pois Madioc (Fr.; AHL); Pois Manioc (Fr.; Haiti; AVP; POR); Pois Maniol (Fr.; AHL); Pois Patate (Fr.; Fwi.; AVP; POR; USN); Poroto Batata (Arg.; AVP); Pre Myit (Burma; POR); Sakalu (Assam; POR); Sankalu (Ben.; Hindi; WOI); Sengkuang (Malaya; POR); Sengkuwang (Malaya; POR); Senkuwang (Malaya; IHB); Sha Ge (China; POR); Sha Got (Canton; POR); Sha Kot (Canton; POR); Singkamas (Tag.; POR); Sin Kamas (Tag.; POR; TAN); Tani Uttan Kai. (Tam.; POR); Tapioca (Sp.; JFM); Three-Lobed-Leaved Yam Bean (Eng.; POR); Tu Gua (China; POR); Yambean (Bel.; Eng.; BNA; JFM; LEG); Yam-Bean (Eng.; USN); Yambohne (Ger.; POR; USN); Yamsbohne (Ger.; POR; USN); Yamsbønne (Den.; POR); Yuca de Bejuco (Ven.; AVP).

**Activities:**

Canicide (1; JFM); Diuretic (f; JFM); Insecticide (1; WOI); Larvicide (1; WOI); Laxative (f; LEG; WOI); Piscicide (1; JFM; WOI); Vermifuge (f; LEG).

**Indications:**

Constipation (f; LEG; WOI); Dermatitis (f; JFM); Gout (f; JFM); Hepatitis (f; JFM); Itch (f; JFM); Jaundice (f; JFM); Mange (f; JFM); Prickly Heat (f; WOI); Worms (f; LEG).

**Dosages:**

FNFF = !!! Seeds and tubers eaten (LEG). Young seedpods rubbed to remove hairs, cooked and eaten like stringbeans (JFM). Powdered seeds mixed with water a/o salt or urine and applied on mange. Seed tincture (with or without twice as much castor oil) applied in dermatitis, itch, and mange (JFM).

- Yucatanese take 30 cc sweetened root juice 3×/day as diuretic in gout and jaundice (JFM).

**Downsides:**

Seeds possibly toxic (AHL); piscicidal and toxic to dogs (JFM). As of July 2007, the FDA Poisonous Plant Database listed 12 titles alluding to toxicity of this species.

**Extracts:**

Seeds contain 0.1–1% rotenone (WOI).

## AMAZON YAM-BEAN (*Pachyrhizus tuberosus* (Lam.) Spreng.) ++

### FABACEAE

**Synonyms:**

*Pachyrhizus tuberosus* (Lam.) Spreng.; *Dolichos tuberosus* Lam.; fide (POR; USN).

**Notes:**

No standardized common name (according to POR): “Little linguistic distinction is made between *Pachyrhizus erosus* and *Pachyrhizus tuberosus* in almost any country. Most names applied to one could apply to the other although *P. erosus* is much more widely distributed around the globe. Therefore “new names” are called for” (POR). My answer to his call is that I like to think of *P. tuberosus* as the “Amazon yam-bean,” and *P. erosus* as the “Mexican yam-bean.” Maybe Facciola (1998) has the better approach; he treats *P. tuberosus* as a synonym of *P. erosus*.

**Common Names:**

Achipa (Bol.; DLZ); Ahipa (Sp.; USN); Ahipo (Bol.; RAR); Ajipa (Aym.; Peru; Que.; Sp.; DAV; RAR; SOU; USN); Ashija (Peru; Sp.; MDD); Ashipa (Peru; Sp.; LOR); At Böyrüce (Tur.; POR);

Bengkoewang (Dutch; POR); Cuxa (Cashibo; RAR); Dolique Tubéreuse (Fr.; POR); Fagiolo Patata (It.; POR); Feijão-Jacatupé (Brazil; Por.; POR; USN); Goseo-o (Huitoto; RAR; SOU); Habilla de Monte (Peru; RAR); Hoewi Iris (Dutch; POR); Huiso (Peru; RAR); Jacatupé (Por.; POR); Jacutupé (Por.; POR); Jícama (Mex.; Sp.; POR; RAR; USN); Jikama (Que.; DLZ); Jiquima (Peru; Sp.; POR; RAR); Jocotupé (Por.; POR); Knollenbohne (Ger.; POR; USN); Knollige Bohne (Ger.; POR); Manioc Bean (Eng.; POR; USN); Namou (Peru; SOU); Nupe (Peru; Sp.; LOR); Pois Patate (Fr.; POR; USN); Potato-Bean (Eng.; POR; USN); Sha Ge (China; POR); Sinkamas (Tag.; POR); Tuberous Gram (Eng.; POR); Wuiso (Peru; RAR; SOU); Xicamatl (Mex.; SOU); Ximatl (Nahuatl; RAR); Xiquima (Peru; RAR); Yam-Bean (Eng.; DAV; POR; RAR; USN); Yambohne (Ger.; POR); Yamsbønne (Den.; POR); Yaspo (Huitoto; RAR).

**Activities:**

Diuretic (f; DLZ); Piscicide (f; RAR); Poison (f; DLZ; SOU); Purgative (f; DLZ).

**Indications:**

Cystosis (f; DLZ); Gastrosis (f; DLZ); Gout (f; DLZ); Nephrosis (f; DLZ).

**Dosages:**

FNFF = !! Tubers eaten (RAR) but seed poisonous (DLZ).

- Bolivians take shots of the tuber juice during fasts for gout (DLZ).

**Downsides:**

Seed poisonous (DLZ). Seed infusion a drastic purgative (DLZ). As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

## JERUSALEM THORN (*Parkinsonia aculeata* L.) +

### CAESALPINIACEAE

**Illustrations:**

fig 77 (L&W)

**Common Names:**

Acacia (Dor.; L&W); Acacia de Agüijote (Nic.; AVP; L&W); Acacia de los Masones (Dor.; L&W); Acacia Savane (Guad.; Mart.; AVP); Adanti (Mar.; WOI); Aroma Extramjera (Dor.; AVP); Arrête Boeuf (Guad.; Mart.; L&W); Arrêtenègre (Fr.; USN); Arrête Nègres (Guad.; Mart.; USN); Azote d Cristo (Peru; RAR); Balati Kikar (Hindi; WOI); Barbados Flowerfence (Eng.; USN); Bayahonda Blanca (His.; AHL); Bois Caca-Rat (Guad.; Mart.; AVP); Boonchi Strena (Dwi.; L&W); Calentano (Ma.; JFM); Cambrón (Dor.; L&W); Capinillo (His.; AHL); Chiguare (Ma.; JFM); Cina Cina (Arg.; Bol.; Uru.; DLZ; L&W); Cují Extranjero (Ven.; AVP; L&W); Epine de Jerusalem (Ma.; JFM); Espinheiro-de-Jerusalém (Por.; USN); Espinho de Jerusalem (Brazil; AVP); Espinillo (Bol.; Cuba; Peru; Sp.; Ven.; DLZ; L&W; RAR; USN); Espinillo de España (Ma.; JFM); Espinito (Ma.; JFM); Espino (Nic.; Ven.; AVP); Espino Real de España (Nic.; Ven.; AVP); Flor de Mayo (Pr.; L&W); Goajira (Col.; L&W); Guacó Poro (Mex.; AVP; MAX); Guichebelle (Ma.; Mex.; JFM; MAX); Holy Thorn (Ma.; JFM); Horsebean (Bah.; Eng.; L&W; USN); Jerusalem (Br. Guy.; L&W); Jerusalem dorn (Ger.; USN); Jerusalem Thorn (Eng.; Jam.; AVP; USN; VOD); Junco (Ma.; JFM); Junco Amarillo (Ma.; JFM); Junco de Cienaga (Ma.; JFM); Junco Marino (Cuba; Peru; L&W; RAR; RyM); Lluvia de Oro (Dor.; L&W); Madam Nais (Haiti; L&W); Madam Yas (Creole; Haiti; L&W; VOD); Mata Burro (Peru; L&W; RAR); Mata Linda (Ma.; JFM); Mexican Paloverde (Eng.; USN); Mezquite Extranjero (Ma.; Mex.; JFM; MAX); Nuche (Peru; EGG); Palo de Rayo (Guat.; Pr.; Sp.; L&W; USN); Palo Verde (Mex.; Peru; L&W; RAR); Palo Verde Mejicano (Sp.; USN); Pardeshi Baval (Guj.; WOI); Parkinsonia (Eng.; EGG); Paují (Ven.; L&W); Pino Japonés (His.; AHL); Pinopino (Ma.; JFM); Ram Baval (Guj.;

WOI); Retaima (Sp.; USN); Retama (Col.; Mex.; L&W); Retama de Cerda (Mex.; AVP; MAX); Rosa da Turquía (Brazil; Mex.; AVP); Royal Caashiaw (Ma.; JFM); Sauce (Col.; L&W); Sauce Espino (Col.; L&W); Sauce Espinoso (Col.; AVP); Sauce Goajiro (Ma.; JFM); Sessaban (Arab.; USN); Siempre Vive (Dor.; AVP; L&W); Sima Tumma (Tel.; WOI); Sulfatillo (Guat.; L&W); Sulfato (Guat.; Sal.; L&W); Turco (Brazil; Mex.; AVP; MPB); Turquía (Brazil; AVP); Vilayati Babul (Hindi; WOI); Vilayati Kikar (Hindi; WOI); Wonder Tree (Fr.; USN); Yaba (Ma.; JFM); Yabo (Col.; L&W); Yabo Zuliano (Ma.; JFM); Yayo (Ma.; JFM). (Nscn).

**Activities:**

Abortifacient (f; DAW; JFM); Analgesic (f; JFM); Antiseptic (f; JFM); CNS-Depressant (f; JFM); Diaphoretic (f; DAW); Febrifuge (f; AHL; MPB); Sedative (f; JFM); Sudorific (f; DAW; MPB); Vulnerary (f; JFM).

**Indications:**

Anemia (f; VOD); Arthritis (f; VOD); Chest Colds (f; JFM); Colds (f; JFM); Dyspepsia (f; VOD); Epilepsy (f; AHL; DAW); Fever (f; AHL; DAW; DLZ; MPB); Infection (f; JFM); Insomnia (f; JFM); Malaria (Brazil; JFM; MPB); Pain (f; JFM); Rabies (f; JFM); Rheumatism (f; VOD); Stomachache (f; EB28:426); Wounds (f; JFM).

**Dosages:**

FNFF = ! Seeds edible (WOI). Toasted seeds used as coffee substitute in northern coastal Peru (EGG).

- Argentinians drink cold sweetened flower and seed decoction for malaria (JFM).
- Asian Indians claim to treat rabies with diluted foliage juice with black pepper (JFM).
- Colombians, Dominicans, and Mexicans take bark, branches, leaves, and flowers for epilepsy and fever (AHL; JFM).
- Haitians poultice floral/foliar tincture onto rheumatism (VOD).
- Haitians take fruit, leaf, and stem decoction for anemia and dyspepsia (VOD).

**Downsides:**

Foliage may accrue toxic levels of nitrate (for grazing animals). As of July 2007, the FDA Poisonous Plant Database listed five titles alluding to toxicity of this species.

## **GUAYULE (*Parthenium argentatum* A. Gray) + ASTERACEAE**

**Common Names:**

Guayule (USN); Mexican Rubber (Eng.; USN).

**Activities:**

Acetylcholinesterase-Inhibitor (1; X11302221); Allergen (1; X7466403); Cytotoxic (1; X15979099); Dermatitigenic (1; X7466403); Insecticide (1; X11302221).

**Indications:**

Cancer (1; X15979099).

**Dosages:**

FNFF = ?

**Downsides:**

Guayulin A, a sesquiterpene cinnamic acid ester present in the resin, is a potent elicitor of allergenic contact dermatitis, comparable to poison ivy. As of July 2007, the FDA Poisonous Plant Database listed nine titles alluding to toxicity of this species.

**Extracts:**

Triterpenes argentatins A and B cytotoxic to several human cancer cell lines (X15979099) and, also being noted in the methanolic shoot extract, exhibited acetylcholinesterase-inhibition and insecticidal activity (X11302221).

**BLUE PASSIONFLOWER (*Passiflora caerulea* L.) ++****PASSIFLORACEAE****Illustrations:**

p 296 (DLZ); p 422 (MPG)

**Common Names:**

Blaa Passionsblomst (Den.; POR); Blaue Passionsblume (Ger.; POR); Blauwe Passiebloem (Dutch; POR); Blue-Crown Passionflower (Eng.; POR; USN); Blue Passionflower (Eng.; Scn.; AH2; POR; USN); Blue Passion Vine (Eng.; HHB); Brucuya (Arg.; MPG); Burucuya (Arg.; Uru.; MPG); Fiore della Passione (It.; POR); Fleur de la Pasion (Fr.; HHB); Fleur de la Passion (Fr.; POR); Flor da Paixão (Brazil; MPB); Flor de la Pasión (Sp.; POR); Flor de la Passió (Sp.; POR); Flor de Pasión (Arg.; Peru; EGG; MPG); Grenadille Bleue (Ger.; HHB); Lotomtomi (Par.; Vilela; MPG); Maracujá (Brazil; Peru; Por.; MPB; MPG; POR); Maracujá Azul (Brazil; Por.; MPB; POR; USN); Maracujá de Cobra (Brazil; Por.; MPB; USN); Martírio Azul (Por.; POR); Mburucuyá (Uru.; MPG); Mgurucuya (Guarani; MPG); Mururua (Bol.; DLZ); Pachio (Bol.; DLZ); Pasiflora (Arg.; Sp.; MPG; POR); Pasionaria (Sp.; POR); Pasionario (Arg.; Bol.; Peru; DLZ; EGG; MPG); Pasión de Cristo (Bol.; DLZ); Passiflora (It.; POR); Passiflora Azzurra (It.; POR); Passiflore Bleue (Fr.; POR); Passiflore du Brésil (Fr.; POR); Passiflore du Pérou (Fr.; POR); Passionblumes (Ger.; HHB); Passionera (Sp.; POR); Passionsblume (Ger.; POR); Piok Rolla (Arg.; MPG); Pi Rolla (Arg.; MPG); Pocote (Arg.; MPG); Siergrenadella (Afrikaans; USN); Siila Itaaa (Toba; MPG).

**Activities:**

Anthelmintic (f; MPG); Antiaging (1; X12511112); Antiaromatase (1; X12511112); Anticonvulsant (f; MPG); Antiinflammatory (f; MPB); Antiseptic (1; MPG); Antispasmodic (f; HHB); Aphrodisiac (1; X12511112); Bactericide (1; MPG); Candicide (1; MPG); Contraceptive (f; MPG); Cyanogenic (1; HHB; MPG); Diuretic (f; MPG); Emetic (f; HHB); Emmenagogue (f; MPG); Febrifuge (f; MPB); Hypotensive (1; MPG); Respirostimulant (1; MPG); Sedative (f; DLZ; HHB; MPG); Vermifuge (f; HHB).

**Indications:**

Aging (1; X12511112); Bacteria (1; MPG); Bronchosis (f; MPB); *Candida* (1; MPG); Convulsions (f1; MPG); Cramps (f1; HHB; MPG); Dermatitis (f; MPB); Dysentery (f; MPG); Fever (f; MPB); Fungus (1; MPG); High Blood Pressure (1; MPG); Impotence (1; X12511112); Infection (1; MPG); Inflammation (f; MPB; MPG); Insomnia (f; DLZ; HHB; MPG); Jaundice (f; MPG); Mycosis (1; MPG); Neuralgia (f; DLZ); Neurasthenia (f; DLZ); Pneumonia (f; MPG); Scurvy (f; MPG); Tuberculosis (1; MPG); Worms (f; HHB; HHG; MPG); Yeast (1; MPG).

**Dosages:**

FNFF = !! Ripe fruits eaten raw, candied, cooked or made into beverages; flowers also candied (FAC; TAN).

- Argentinians take the root tea for inflammation, pneumonia, and worms (MPG).
- Bolivians suggest leaf and flower tea for nervous conditions, e.g., insomnia, neuralgia, and neurasthenia (DLZ).
- Uruguayans take leaf infusion as anthelmintic, diuretic, and emmenagogue, the root tea for cramps and pneumonia (MPG).

**Downsides:**

High doses can cause convulsion, emesis, even death in animals. As of July 2007, the FDA Poisonous Plant Database listed eight titles alluding to toxicity of this species.

**Extracts:**

Rats given the flavone chrysin, from *P. caerulea*, 1 mg/kg for 30 days showed increased libido, sperm count, higher fertilization potential, and increased litter size (12511112).

**BAT-LEAF PASSIONFLOWER (*Passiflora coriacea* Juss.) ++****PASSIFLORACEAE****Illustrations:**

p 296 (DLZ)

**Common Names:**

Ala de Murcielago (Ma.; JFM); Bat-Leaf Passionflower (Eng.; Scn.; AH2); Calzoncillo (Ma.; JFM); Camacarлата (Ma.; JFM); Costado Sacha (Peru; SOU); Curcuba (Bol.; DLZ); Granadillo de Monte (Ma.; JFM); Hoja de Murcielago (Ma.; JFM); Intisisa (Bol.; Que.; DLZ); Jamp'jasi (Aym.; Bol.; DLZ); Media Luna (Ma.; JFM); Murcielago (Ma.; JFM); Murciélago (Sp.; USN); Uchu Anquirisi (Peru; SOU); Xicozotz (Ma.; JFM).

**Activities:**

Diuretic (f; JFM); Sedative (f; DLZ); Vulnerary (f; JFM).

**Indications:**

Infection (f; JFM); Insomnia (f; DLZ); Nephrosis (f; JFM); Neuralgia (f; DLZ); Neurasthenia (f; DLZ); Swelling (f; JFM); Wounds (f; JFM).

**Dosages:**

FNFF = ! Ripe fruit pulp of other species eaten (JAD).

- Bolivians suggest leaf and flower tea for nervous conditions, e.g., insomnia, neuralgia, and neurasthenia (DLZ).
- Guatemalans take the diuretic decoction for kidney infections (JFM).
- Hondurans and Salvadorans poulticed greased (lard) leaves onto swellings and wounds (JFM).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**PURPLE GRANADILLA (*Passiflora edulis* Sims) ++****PASSIFLORACEAE****Illustrations:**

fig 174 (DAV); p 297 (DLZ)

**Notes:**

I disagree with Taylor (2005) when she says that *Passiflora edulis* and *P. incarnata* are the most prevalent species in the Amazon. I'll bet *P. edulis*. *P. incarnata* is North American in nativity. For that reason I apply her Brazilian data only to *P. edulis* (RAI)

**Common Names:**

Aul Aanp (Nepal; NPM); Buah Susu (Malaya; POR); Ceibey (Cuba; Sp.; POR; RyM); Chinola (Dor.; AHL); Couzou (Eng.; Fr. Guiana; Guy.; Sur.; Wi.; POR); Curuba (Col.; Sp.; POR); Eetbare Passiebloem (Dutch; POR); Flor da Paixão (Brazil; Por.; MPB; POR); Fruit de la Passion (Fr.; POR); Fruta de la Pasión (Sp.; POR); Frutto della Passione (It.; POR); Golgotavirágy Gyümölcse (Hun.; POR); Granadiglia (It.; POR); Granadillo (Por.; POR); Granadilla (Eng.; Ger.; POR; VOD); Gran'adja (Creole; Haiti; VOD); Granatblomst (Den.; POR); Grenadella (Afrikaans; USN); Grenadille Pourpre (Fr.; POR); Grenadja (Creole; Haiti; VOD); Ji Dan Guo (China; POR); Joponqolu (Aym.; Bol.; DLZ); Joponqoru (Que.; Bol.; DLZ); Kärsimyshedelmä (Fin.; POR); Kleine Grenadille (Ger.; HH2); Konyal (Malaya; POR); Kudamonotokeiso (Japan; POR); Ling Mang Kon (Thai; POR); Lin Mang Kon (Thai; POR); Maracaju Pourpre (Fr.; POR); Maracudja (Fr.; POR); Maracuj (Brazil; Por.; POR); Maracujá (Brazil; Por.; POR; USN); Maracujá-Comum (Brazil; Por.; USN); Maracujá Común (Brazil; MPB; MPG); Maracujá-de-Comer (Brazil; Por.; USN); Maracujá-de-Ponche (Brazil; Por.; MPB; USN); Maracujá-Doce (Brazil; Por.; MPB; USN); Maracujá-do-Mato (Brazil; Por.; USN); Maracujá-Mirim (Brazil; Por.; MPB; POR; USN); Maracujá-Pequeno (Por.; POR); Maracujá-Peroba (Brazil; Por.; MPB; POR; USN); Maracujá-Preto (Brazil; Por.; USN); Maracujá-Redondo (Brazil; Por.; USN); Maracujá Roxo (Mad.; Por.; JLH; POR); Maracujá-Suspiro (Por.; POR); Maracujá Violeto (Brazil; MPG); Maracuyá (Peru; RAR); Markisa (Malaya; POR); Meczennica Jadalna (Pol.; POR); Murucuya Suspiro (Brazil; KAB); Paarse-Passievruucht (Dutch; POR); Parcha (Pr.; Sp.; Ven.; POR); Parchita (Dor.; Sp.; Ven.; AHL; POR); Parchita Maracuyá (Sp.; POR); Pasionaria (Tag.; POR); Passiebloem (Dutch; POR); Passie Vrucht (Dutch; POR); Passiflora Commestibile (It.; POR); Passiflore Comestible (Fr.; POR); Passiohedelmä (Fin.; POR); Passionfruit (Eng.; RAR; POR; WOI); Passionsfrucht (Ger.; POR); Passionsfrugt (Den.; POR); Passionsfrukt (Swe.; POR); Purple Granadilla (Eng.; Scn.; AH2; WOI; USN); Purple Passionflower (Eng.; Ocn.; AH2); Purpurgranadilla (Ger.; POR); Purpur-Granadille (Ger.; POR); Purpurgrenadille (Ger.; HH2); Saowarot (Thai; POR); Xi Fan Lian (China; POR).

**Activities:**

Analgesic (f; RAI); Anaphrodisiac (f; EGG); Antiangiogenic (1; X12727500); Antihypertensive (1; MPG); Antiinflammatory (f; RAI; 60P); Antimetastatic (1; X12727500); Antioxidant (1; JAF51:935); Antispasmodic (f; RAI); Antitumor (1; X12727500); Antitussive (f; RAI); Anxiolytic (1; X11268119); Aphrodisiac (f; VOD); Cardiotonic (f; RAI); Cyanogenic (1; X12150815); Diuretic (f1; MPG; RAI; 60P); Hypnotic (1; 60P); Hypotensive (f; VOD); Metalloprotease-Inhibitor (1; X12727500); Myorelaxant (f; EGG); Negative Chronotropic (1; MPG; 60P); Sedative (f1; DAV; EGG; MPB; RAI; VOD); Stimulant (f; KAB); Tonic (f; KAB); Tranquilizer (f1; MPG; 60P); Vermifuge (f; MPB).

**Indications:**

ADD (f; RAI); Alcoholism (f1; RAI); Anxiety (f; RAI; X11268119); Arthrosis (f; RAI); Asthma (f; RAI; 60P); Bronchosis (f; RAI; 60P); Cancer (f1; JLH; X12727500); Cancer, stomach (f; JLH); Cardiopathy (f; DAV; RAI); Colic (f; RAI); Constipation (f; RAI); Convulsions (f; RAI); Coughs (f; RAI); Delirium (f; RAI); Diarrhea (f; RAI); Dysmenorrhea (f; RAI); Enterosis (f; RAI); Epilepsy (f; RAI; 60P); Flu (f; RAI); Gastrosis (f; JLH); Gout (f; RAI); Headache (f; DLZ; RAI); Hemorrhoids (f; RAI; MPG; 60P); High Blood Pressure (f; MPG; RAI; VOD; 60P); Hyperactivity (f; RAI); Hysteria (f; MPB; RAI); Impotence (f; VOD); Inflammation (f; RAI; MPG; 60P); Insomnia (f1; DAV; DLZ; EGG; MPB; RAI; VOD; 60P); Menopause (f; RAI); Neuralgia (f; DLZ; RAI); Neurasthenia (f; DLZ); Neurosis (f; MPG); Oliguria (f; RAI); Pain (f; RAI); Pertussis (f; RAI); Respirosis (f; MPB); Rheumatism (f; RAI); Spasms (f; RAI); Stress (f; RAI); Tetanus (f; 60P); Worms (f; MPB; RAI).

**Dosages:**

FNFF = !!! Fruits widely consumed, fresh, or in cocktails, salads, beverages, or ices (AHL; NPM).

- Brazilians take internally for asthma, bronchitis, and water retention, externally for piles (MPG).
- Brazilians use for alcoholism, anxiety, arthritis, bronchosis, cardiopathy, constipation, convulsion, cough, delirium, depression, diarrhea, dysmenorrhea, flu, gout, headache, hemorrhoids, high blood pressure, hyperactivity, hysteria, inflammation, insomnia, irritability, menopause, neurosis, oliguria, pain, rheumatism, spasm, and stress (RAI).
- Brazilians use the fruit pulp as a stimulant tonic (KAB).
- Dominicans drink the fruit juice for high blood pressure (VOD).
- Madeirans use the fruits for stomach cancer (JLH).
- Peruvians suggest taking the leaf infusion to relax muscles, or before bed for insomnia (EGG).
- Peruvians take aqueous shoot extracts for epilepsy, high blood pressure, insomnia, neuroses, and tetanus (MPG).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed 10 titles alluding to toxicity of this species.

**STINKING PASSIFLOWER (*Passiflora foetida* L.) ++****PASSIFLORACEAE****Illustrations:**

p 297 (DLZ); pl 222 (DAG)

**Synonyms:**

*Passiflora foetida* L. var. *arizonica* Killip; *P. foetida* var. *gospifolia* Desv.; *P. foetida* L. var. *hastata* (Bertol.) Mast.; *P. foetida* L. var. *hibiscifolia* (Lam.) Killip; *P. foetida* L. var. *hispidia* (DC.) Killip ex Gleason; *P. gospifolia* Desv.; *P. hastata* Bertol.; *P. hibiscifolia* Lam.; *P. hispidia* DC. ex Triana & Planch.; fide (AVP; POR; USN).

**Common Names:**

Amapola (Sp.; Ocn.; AH2); Bedoca (Peru; EGG; JFM; SOU); Bombillo (Cr.; Ecu.; AVP; DAG; JFM); Bonbon Coulevre (Haiti; AVP); Bonbon Koulev (Creole; Haiti; AVP; VOD); Burucuya Hedionda (Ma.; JFM); Caguasa (Dor.; AVP; JFM); Caguasia (Dor.; AVP); Caguaza (Dor.; AHL); Chadayan (Mal.; WOI); Coque Molle (Haiti; AHL); Corona de Birge (Ma.; JFM); Corona de la Birgen (Ma.; JFM); Flor del Clavo (Ma.; JFM); Flor de Pasión Silvestre (Pr.; AVP); Granadilla (Bol.; DLZ; EGG); Granadilla Cimarrona (Ma.; JFM); Granadilla Colorada (Ma.; JFM); Granadilla de Culebra (Ma.; Sp.; JFM; POR; USN); Granadilla del Monte (Bel.; BNA); Granadilla Montes (Ma.; JFM); Granadilla Silvestre (Ma.; JFM); Granadillita Amarga (Ma.; JFM); Gwav (Creole; Haiti; VOD); Jerba de Maria (Ma.; JFM); Jujito Peludo (Ma.; JFM); Kleistubom (Dwi.; JFM); Koulev (Creole; Haiti; VOD); K'rang Kraut (Malaya; KAB); Krui-zebloeem (Dwi.; JFM); Kukkiballi (Kan.; KAB; WOI); Lang Buluh (Malaya; KAB); Letop-Letop (Malaya; KAB); Love-in-a-Mist (Eng.; VOD); Maraca (Ma.; JFM); Maracujá (Brazil; AVP); Maracujá Caatinga (Brazil; JFM); Maracujá de Estalo (Brazil; MPB); Maracujá Fedorento (Brazil; JFM; MPB); Marcusa (Sp.; JFM); Marie Gougeat (Fr.; Ma.; JFM; POR; USN); Marigoujeat (Guad.; St. Bart.; AVP); Marie Gouju (Fr.; KAB); Marigouya (Creole; Haiti; Ma.; JFM; VOD); Mupparisavalli (Tam.; WOI); Murucuja do Estralo (Brazil; KAB); Ñorbo (Cr.; AVP; JFM); Ñorbo Cimarrón (Peru; EGG); Ñorbo Hediondo (Peru; SOU); Oashurbiaya (Ma.;



JFM); Pachió (Bol.; DLZ); Parcha de Culebra (Ven.; AVP; JFM); Parchita de Culebra (Ma.; JFM); Parchita de Montaña (Ven.; AVP; JFM); Pasiflora Hedionda (Sp.; POR; USN); Pasionario Hedionda (Cuba; AVP; JFM); Pasionario que Huele (Ma.; JFM); Passiebloem (Dwi.; JFM); Passiflore Fétide (Fr.; Guad.; AVP; KAB); Pochcac (Ma.; JFM); Pochil (Ma.; JFM); Pomme Liane Collant (Fr.; JFM); Pooch (Ma.; JFM); Poochapazham (Mal.; WOI); Popbush (Eng.; JFM); Poppun (Eng.; JFM); Purillo (Peru; RAR); Purupuru (Peru; EGG; RAR; SOU); Running Pop (Eng.; Ocn.; AH2; POR; USN); Sandia de Culebra (Sp.; JFM); Sandia de Raton (Sp.; JFM); Sa Yèp (Bel.; Maya; BNA); Shonshon (Ma.; JFM); Shorshoro (Ma.; JFM); Shoshori (Ma.; JFM); Siruppunaikkalli (Tam.; WOI); Siruppunaik Kali (Tam.; KAB); Sosoro (Ma.; JFM); Stinking Passionflower (Eng.; Scn.; AH2; POR; USN; WOI); Tagua Tagua (Pr.; Ven.; AVP; JFM); Tellajumiki (Tel.; KAB; WOI); Timun Dintang (Malaya; KAB); Timun Padang (Malaya; KAB); Toque Molle (Haiti; AHL; AVP; JFM); Tumbillo (Ma.; JFM); Übelriechende Passionsblume (Ger.; POR); Yerba de Cruz (Ma.; JFM).

### Activities:

Antiangiogenic (1; X12727500); Antiinflammatory (f; JFM); Antimetastatic (1; X12727500); Antispasmodic (f; DLZ); Antitumor (1; X12727500); Cyanogenic (1; WOI); Emetic (f; WOI); Emmenagogue (f; JFM; KAB; WOI); Metalloprotease-Inhibitor (1; X12727500); Pectoral (f; VOD); Sedative (f; JFM; VOD); Tonic (f; MPB); Toxic (f; VOD); Tranquilizer (f; VOD); Vermifuge (f; JFM).

### Indications:

Amenorrhea (f; JFM; KAB; WOI); Asthma (f; WOI); Bilioussness (f; WOI); Bleennorrhagia (f; MPB); Cancer (1; X12727500); Cardiopathy (f; JFM); Childbirth (f; JFM); Colds (f; JFM; VOD); Convulsions (f; JFM); Coughs (f; JFM); Cramps (f; DLZ); Cystosis (f; JFM); Debility (f; VOD); Dermatosi (f; JFM; KAB); Dysuria (f; JFM); Eczema (f; JFM); Epilepsy (f; JFM); Erysipelas (f; JFM; KAB); Flu (f; VOD); Gastrosi (f; JFM); Giddiness (f; KAB); Headache (f; VOD; WOI); Hoarseness (f; JFM; VOD); Hysteria (f; JFM; KAB; WOI); Infertility (f; JFM); Inflammation (f; JFM; KAB); Insomnia (f; JFM; VOD); Itch (f; JFM; WOI); Measles (f; JFM); Nausea (f; JFM); Nephrosi (f; JFM); Prickly Heat (f; JFM); Rashes (f; JFM); Sore Throat (f; VOD); Tonsiliti (f; VOD); Urethrosi (f; JFM); Vertigo (f; VOD); Worms (f; JFM); Wounds (f; WOI).

### Dosages:

FNFF = !! Fruits edible, both pulp and seeds (EGG).

- Argentinians take 3 cups/day sweetened floral infusion for epilepsy (JFM).
- Arubans apply the plant decoction topically to measles, rash, and wounds (JFM).
- Asian Indians dress wounds with leaves, using the decoction (with roots) for amenorrhea and hysteria (WOI).
- Asian Indians report applying leaves topically for giddiness and headache, the leaf decoction for asthma and biliousness (KAB; WOI).
- Brazilians apply the leaf decoction to dermatosis, erysipelas, and inflammation (JFM; WOI).
- Curaçaoans take leaf decoction in bladder, kidney, or stomach distress (JFM).
- Dominican Caribs use leaf tea internally for colds, externally as a bath for debility (VOD).
- Haitians give the leaf tea to children as calmate and sedative (VOD).
- Haitians place compressed leaves on the forehead for headache and vertigo (VOD).
- Haitians use the leaf decoction for cold and flu, leaves compressed onto the neck for hoarseness and tonsilitis (VOD).
- Haitians use the plant juice as a gargle (VOD).
- Jamaicans take a dried vine decoction to improve kidney function (JFM).
- Réunion natives, considering the leaves emmenagogue, suggest them for hysteria (KAB).

- Venezuelans take vine decoction for heart ailments and sterility (JFM).
- Yucatanese take vine decoction for convulsions, hysteria, and insomnia (JFM).

**Downsides:**

By no means perfectly safe, this species with at least 37 recognized varieties, contains some toxic compounds (see in FNF). As of July 2007, the FDA Poisonous Plant Database listed 18 titles alluding to toxicity of this species.

**PASSIONFLOWER (*Passiflora incarnata* L.) ++****PASSIFLORACEAE****Illustrations:**

p 557 (CR2); p 189 (KWD)

**Notes:**

Too late I noticed that some of the Steinmetz (EFS) names below may apply to species other than *Passiflora incarnata*.

**Common Names:**

Apricot Vine (Eng.; ACT9(2):89; KWD; POR; USN); Carkifelek (Tur.; EFS); Chabo Toket Sô (Japan; TAN); Fleishfarbige Passionsblume (Ger.; POR; TAN); Fleur de la Passion (Fr.; POR); Flor de la Pasión (Sp.; EFS); Flor de Pasión (Sp.; POR); Granadiglia Incarnata (It.; EFS); Granadilla (Sp.; EFS); Grenadille (Fr.; EFS); Herbe de Passion (Fr.; EFS); Maracujá-Roxo (Por.; POR); Mayapple (Eng.; BUR; POR); Maypop (Eng.; ACT9(2):89; BUR; POR; USN); Maypop Herb (Eng.; KWD); Maypop Passionflower (Eng.; KWD; USN); May Pops (Eng.; POR); Passiflora (Sp.; POR); Pasifolor (Sp.; EFS); Pasionaria (Sp.; POR); Pasionario (Sp.; EFS); Pasionaria (It.; EFS); Passiebloem (Dutch; EFS); Passiekruid (Dutch; EFS); Passiflore Officinale (Fr.; POR); Passiflore Purpurine (Fr.; POR); Passiflore Rouge (Fr.; USN); Passionflore Rouge Chair (Fr.; TAN); Passionflower (Eng.; ACT9(2):89; BUR; CR2; KWD; POR; USN); Passionflower Vine (Eng.; KWD); Passion Herb (Eng.; EFS); Passionsblume (Ger.; USN); Passionskraute (Ger.; USN); Purple Passionflower (Eng.; ACT9(2):89); Wild Passion Flower (Eng.; POR).

**Activities:**

Adaptogenic (f; JMF5:43); Analgesic (1; APA; PNC); Antiaging (1; FNF; JMF5:43); Anti-aromatase (1; FNF; JMF5:43); Antiinflammatory (f; FAD); Antiseptic (1; APA; X16317658); Antispasmodic (f1; BGB; EFS; HHB; HNI; KWD; PED; WAM); Antistress (f; JMF5:43); Antitussive (1; X12165335); Anxiolytic (1; BGB; JMF5:43; WAM); Aphrodisiac (f1; JMF5:43; KWD); Bactericide (1; APA; CAN; X16317658); Candidicide (1; APA; PED); Cardiogenic (f; BGB); CNS-Depressant (2; APA; PED); CNS-Stimulant (1; APA; BGB); Cyanogenic (f; CRC); Digestive (1; APA); Emetic (f; FEL); Fungicide (1; APA; PED); Gram(-)-icide (1; X16317658); Hematinic (f; DEM; HNI); Hypnotic (2; CAN); Hypotensive (1; APA; FAD; HNI; PED; PH2); MAOI (2; JAD); Myorelaxant (1; APA; PED); Narcotic (f1; CRC; EFS); Nervine (f; JAH2(2):45); Respirostimulant (1; APA; HNI; PH2); Sedative (f12; APA; EFS; HHB; SHT; WAM); Soporific (f; CRC; EFS); Spermatogenic (1; JMF5:43); Tonic (f; JMF5:43); Tranquilizer (2; APA; SHT); Uterorelaxant (1; APA); Uterotonic (1; CAN).

**Indications:**

Addiction (f1; CRC; X12079005; X12935433); Anxiety (1; APA; BGB; WAM); Asthma (1; CAN; HH2; WAM); Atony (f; FEL); Bacteria (1; X16317658); Boils (f; DEM; FAD; HNI); Bronchosis (1; WAM); Bruises (f; APA); Burns (f; BUR; FEL); Cancer (f; FEL); *Candidiasis* (1; CAN); Cannabinism (1; X12079005); Cardiopathy (f; APA; BGB; FEL); Chancre (f; FEL); Chorea (f; FEL); Colic (f; CRC; HHB; PED); Convulsions (f; FEL); Coughs (1; X12165335); Cramps (f;

APA; FEL); Depression (1; FNF; PH2); Dermatitis (f; BUR; CRC; FEL); Diarrhea (f; CRC; FEL; PED); Dysentery (f; CRC; FEL); Dysmenorrhea (2; APA; FEL; PED; WAM); Dyspepsia (1; X16317658); Dyspnea (f; FEL); Dystonia (1; FT71:S73); Earache (f1; DEM; FAD; HNI); Eclampsia (f; FEL); Enterosis (f; BGB; PHR); Epilepsy (f1; CRC; FEL; HNI; PED); Erysipelas (f; BUR; FEL); Fever (f; FEL); Flu (f; FEL); Frigidity (1; JMF5:43); Gastrosis (f1; BGB; PHR; X16317658); Headache (1; APA; FAD); *Helicobacter* (1; X16317658); Hemorrhoids (f1; BUR; CRC; PED; PH2); Hepatosis (f; HNI; JAH2(2):45); High Blood Pressure (1; PED; PH2); Hyperactivity (1; PHR); Hysteria (1; CAN; JMF5:43); Impotence (f1; HNI; JMF5:43; KWD); Infection (1; APA; X16317658); Inflammation (f; DEM; FAD; HNI); Insomnia (f12; EFS; FEL; PHR; PH2; SHT; WAM); Morphine (f1; CRC; X12935433); Myalgia (f; APA); Nervousness (2; APA; BGB; PHR; PH2); Nervous Restlessness (f2; BGB; KOM); Neuralgia (f1; BGB; BUR; CAN; CRC; FEL; HNB); Neurasthenia (f; CRC; HNB); Neurosis (f; CRC; EFS); Nicotinism (f; CRC); Obesity (1; FT71:S73); Ophthalmia (f; CRC); Otitis (f; JAH2(2):45); Pain (f1; APA; JAH2(2):45; PNC); Palpitations (f; APA); PMS (1; WAM); Proctosis (f; FEL); Senility (1; X12511112); Shock (f; FEL); Sores (f; FEL; FT72:922); Spasms (f; CRC); Stress (1; APA); Tachycardia (1; BGB; CAN; HH2); Tetanus (f; FEL); Toothache (f; FEL); Typhoid (f; FEL); Ulcers (1; X16317658); Uterosis (f; FEL); Weaning (f; DEM; HNI); Yeast (1; APA).

### Dosages:

FNFF = ! Fruits locally eaten (JAD). Leaves said to be delicious as a cooked green or eaten raw in a salad. Flowers are eaten as a vegetable or made into syrup (FAC). 1 tsp dry flower/cup water up to 3×/day (APA); 1 tsp herb/cup tea, 2–3×/day (PH2); 0.25–2.5 g herb, or in tea, 2–3×/day (CAN; SKY); 4–8 g dry herb (HH2; KOM; SHT); 1–3 g dry herb/day (PED); 1–2 tbsps/day (PED); 20 g herb/200 ml water for hemorrhoid wash (PH2); 1–3 g herb 3×/day; 0.5–1 ml liquid leaf extract (PNC); 150–300 mg solid leaf extract (APA); 0.5–1.0 ml liquid herbal extract (1:1 in 25% ethanol) 3×/day (CAN); 0.5–2.0 ml herbal tincture (1:8 in 45% ethanol) 3×/day (CAN); 0.5–1 tsp tincture to 3×/day (APA); 0.5–2 ml tincture (1:8 in 45% ethanol) (HH2); 2–4 ml tincture/day (SKY); StX = 0.8% total flavonoids (SKY).

- Cherokee used the roots for boils, cuts, earache, inflammation, liver, weaning, and wounds (DEM; HNI).
- Houma used the root tea as a blood tonic (HNI).

### Downsides:

Class 1 (AHP). None known or reported (KOM; PH2; PIP; WAM). Large doses may result in CNS depression (LRN, May 1989). The same precautions suggested for MAOI inhibitors might be indicated here. Excessive doses may potentiate MAOI therapy (CAN). Newall, Anderson, and Phillipson (1996) caution that because of harman and harmaline (uterine stimulants), its use in pregnancy and lactation is to be avoided. One report on humans detailed hypnotic sedative effects, BUT there were hints of hepatotoxicity and pancreatotoxicity. "Content of harman alkaloids ... must not exceed 0.01 percent" (KOM). Animal studies suggest motility inhibition (PHR). LD50 (unspecified extracts) = 3,000–15,000 mg/kg; toxic dose ipr 500–900 mg/kg alcoholic and dry extracts (HH2). LD50 (maltol) 820 mg/kg scu mus (HH2). As of July 2007, the FDA Poisonous Plant Database listed 21 titles alluding to toxicity of this species.

### Extracts:

TD = >900 mg/kg ipr mus (CAN). Extracts, oral or peritoneal, reduce spontaneous locomotor activity in mice and prolong their sleep (SHT). Flavonoids more than alkaloids may contribute to anxiolytic and relaxing effects (PED). Apigenin well known as antiinflammatory, antispasmodic, and sedative (PNC). Harmala alkaloids produce drowsiness, inhibit the enzyme MAO, and relieve smooth muscle cramps. Harman and harmaline are uterine stimulants in animals (CAN). Harmaline alkaloids are CNS-stimulant at doses of 3–6 mg/man, but hallucinogenic and toxic at 500–600 mg (HH2). But the presence of harmine type alkaloids is questionable (HH2; PH2). Passicol

inhibits many bacteria, molds, and yeast, group A hemolytic streptococci more so than *Staphylococcus aureus*, with *Candida albicans* intermediate (CAN). It was noted that the Gram-negative bacterium *Helicobacter pylori* sometimes causes gastritis and peptic ulcers; methanol extracts of passionflower had antihelicobacter activities (MIC 50 µg/ml) (X16317658).

## YELLOW GRANADILLA (*Passiflora laurifolia* L.) ++

### PASSIFLORACEAE

#### Synonyms:

*Granadilla laurifolia* (L.) Medik.; *Passiflora oblongifolia* Pulle; *P. tinifolia* A.L. Juss.; fide (GMJ).

#### Common Names:

Bay-Leaf Passionflower (Eng.; Ocn.; AH2); Bell Apple (Eng.; AVP; JFM; USN); Casha Huaro (Shipibo/Conibo; Peru; EGG); Cibey (Ma.; JFM); Flor de Pasión (Pr.; AVP); Golden Apple (Ma.; JFM); Granadilla (Peru; Sp.; EGG; JFM; SOU); Grenadille (Creole; Haiti; VOD); Jamaica Honeysuckle (Jam.; Sri.; AVP; JFM; USN; WOI); Kalbasik (Creole; Haiti; VOD); Mahiktamu (Palikur; GMJ); Maracujá (Brazil; MPB); Maracujá Comun (Brazil; MPB); Maracuja Suspiro (Ma.; JFM); Marie Tambour (Creole; Guy.; GMJ); Paramarkoesa (Ma.; JFM); Parcha (Dor.; Pr.; Sp.; AVP; USN); Parcha de Culebra (Ven.; AVP; JFM); Passiflore à Feuilles de Laurier (Haiti; AVP); Passionflower (Eng.; AVP); Pom di Lian (Ma.; JFM); Pomme de Liane (Ma.; St. Bart.; AVP; JFM); Pomme d'Or (Fr.; Ma.; Sri.; AVP; JFM; USN); Pomme Liane (Guad.; Guy.; Haiti; Mart.; AVP; JFM); Ponm Lyan (Creole; Haiti; VOD); Sweetcup (Eng.; USN); Tapulumale (Wayãpi; GMJ); Wasserlimone (Ger.; USN); Water Lemon (Eng.; Ocn.; AH2; AVP; JFM; USN; WOI); Yellow Granadilla (Eng.; Scn.; AH2; USN). (American entries diacritically prepared).

#### Activities:

Anthelmintic (f; EGG; WOI); Antiinflammatory (f; JFM); Antivenom (1; X16169172); Astringent (f; EGG; MPB); Bitter (f; MPB); Cardiotonic (f; JFM; WOI); CNS-Depressant (f; JFM); Cyanogenic (f; JFM); Diaphoretic (f; WOI); Emollient (f; WOI); Hypnotic (f; JFM; WOI); Poison (f; JFM); Sedative (f; JFM); Vermifuge (f; GMJ; JFM; MPB; VOD).

#### Indications:

Boils (f; JFM); Burns (f; EGG); Cardiopathy (f; JFM; WOI); Colds (f; JFM); Coughs (f; JFM); Diabetes (f; EGG); Diarrhea (f; EGG); Enterosis (f; JFM); Inflammation (f; JFM); Insomnia (f; JFM); *Leishmania* (f; EGG); Malaria (f; EGG); Palpitations (f; JFM); Scorpion Stings (1; X16169172); Sore Throat (f; JFM); Sprains (f; JFM); Worms (f; EGG; GMJ; JFM; MPB; VOD; WOI); Yellow Fever (f; EGG).

#### Dosages:

FNFF = !! Fruits eaten raw (EGG; JFM).

- Argentinians make cough drops from fruit juice, gargle the fruit juice for throat inflammations (JFM).
- Guadelupans say 1 leaf in 1 cup water will expel intestinal worms (JFM).
- Haitians add powdered dried leaves to leaf tea as vermifuge (VOD).
- Peruvians suggest leaf decoction for diabetes and malaria, and washing burns and “uta” sores (leishmaniasis) (EGG).
- Peruvians suggest leaf decoction with “verbena” for yellow fever (EGG).
- Trinidadans bathe sprains with leaf decoction, giving to children for cold and worms, and taking it for heart palpitations (JFM).

**Downsides:**

Leaves produce HCN. As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.

**SWEET GRANADILLA (*Passiflora ligularis* Juss.) ++****PASSIFLORACEAE****Common Names:**

Apicoya (Aym.; RAR); Apincuya (Bol.; Que.; DLZ); Apinqoya (Aym.; DLZ); Buah Belebar (Indonesia; POR); Buah Selaseh (Malaya; POR); Buah Susu (Indonesia; POR); Cranix (Sp.; POR; USN); Granada-China (Eng.; Mex.; Sp.; POR; USN); Granadilla (Peru; Sp.; LOR; POR; USN); Granadilla Común (Guat.; Sp.; POR); Granadilla de China (Sp.; Ven.; POR); Granadille (Fr.; USN); Grenadilla (Ecu.; BEJ); Grenadille des Montagnes (Fr.; POR); Grenadille Douce (Fr.; POR; USN); Hutu (Peru; SOU); Maracujá (Brazil; Por.; USN); Markusa Leutik (Malaya; POR); Pachio (Bol.; DLZ); Parchita Amarilla (Sp.; Ven.; POR); Poka (FAC); SüÙe Grandilla (Ger.; POR; USN); Sweet Granadilla (Eng.; DAV; FAC; POR; USN); Tin Tin (Peru; Que.; DLZ; RAR); Tumbo (Peru; Sp.; LOR); Water Lemon (Eng.; POR); Zoete Markoesa (Dutch; POR); Zungenförmige Passionsblume (Ger.; POR). (Nscn).

**Activities:**

Febrifuge (f; DAV); Litholytic (f; DAV); Mucolytic (f; DAV); Stomachic (f; DAV).

**Indications:**

Cramps (f; BEJ); Dysmenorrhea (f; BEJ); Fever (f; DAV; SOU); Gallstones (f; DAV); Infection (f; BEJ); Malaria (f; DAV; SOU); Measles (f; RAR); Rabies (f; DAV); Sores (f; SOU); Spermatorrhea (f; SOU); Stones (f; DAV); Yellow Fever (f; DAV; RAR).

**Dosages:**

FNFF = ! Fruits edible, said to be one of the best *Passiflora* (FAC). Fruit eaten or taken in decoction to prevent gallstones, rabies, ulcers, and yellow fever (DAV).

**GIANT GRANADILLA (*Passiflora quadrangularis* L.) ++****PASSIFLORACEAE**

**Illustrations:**

fig 175 (DAV); p 298 (DLZ); pl 223 (DAG)

**Synonyms:**

*Passiflora macrocarpa* Mast.; *P. quadrangularis* var. *variegata*; *P. tetragona*; fide (EGG; USN).

**Common Names:**

Apincoya (Peru; EGG; SOU); Badea (Col.; Ecu.; Sp.; EGG; RAR; USN); Barbadina (Peru; EGG; SOU); Barbadine (Creole; Fr.; Guy.; Trin.; GMJ; USN); Barbadinier (Guad.; Mart.; AVP); Corvejo (Ma.; JFM); Exuberu (Cashibo; EGG); Giant Granadilla (Eng.; Scn.; AH2; DAV; FAC; USN); Granadilla (Cr.; Cuba; Eng.; Jam.; Pan.; Pr.; AVP; CR2; RyM; USN; VOD); Granadilla de Fresco (Ma.; JFM); Granadilla Pachio (Bol.; DLZ); Granadilla Real (Cr.; Sp.; AVP; USN); Granadille (Guad.; Mart.; AVP); Granadillo (Dor.; AVP); Grenadin (Creole; Haiti; AVP; VOD); Grote Markoesa (Sur.; AVP); Maraconja (Congo; AVP); Maracujá-Açú (Brazil; Por.; USN); Maracuja Assu (Por.; MPB); Maracuja de Caiena (Ma.; JFM); Maracuja Grande (Ma.; JFM); Maracujá-Mamão (Brazil; Ma.; JFM; USN); Maracujá-Melão (Brazil; Ma.; JFM; USN); Maracuja Silvestre (Ma.; JFM); Maracuja Suspiro (Ma.; JFM); Maracujá-Uaçu (Brazil; Por.; USN); Pachio (Bol.; DLZ); Parcha (Ma.; JFM); Parcha de Guinea (Ma.; JFM); Parcha Granadilla (Ma.; JFM); Parcha Granadina (Ma.; JFM); Parcha Grande (Ma.; JFM); Parcha Grandina (Ven.; AVP); Riesengranadilla (Ger.; USN); Sandía de la Pasion (Ma.; JFM); Tambo (Ma.; Peru; JFM); True Granadillo (Eng.; Ocn.; AH2); Tumbo (Ecu.; Peru; Sp.; CTD; LOR; MDD; SOU); Tumbo de Chiclayo (Peru; EGG); Tumbo Gigante (Peru; EGG); Uxubëru (Cashibo; RAR); Wahamtari (Ulwa; ULW).

**Activities:**

Abortifacient (f; DAV); Analgesic (f; ULW); Anthelmintic (f; CRC; DLZ); Antihemorrhagic (1; X11025161); Antitussive (f; EGG; RAR); Antivenom (1; X11025161); Anxiolytic (f1; X17295387); Cardiodepressant (f; DAV; EGG); CNS-Depressant (f; CRC; DAV); Contraceptive (f; EGG; RAR); Cyanogenic (f; JFM; WOI); Decongestant (f; DAV; EGG; VOD); Depurative (f; DAV); Diuretic (f; CRC); Emetic (f; CRC; JFM); Emollient (f; CRC; DAV); Febrifuge (f; EGG; RAR); Hypnotic (1; JFM); Narcotic (f1; DAV; EGG; JFM; RAR; WOI); Poison (f; JFM); Sedative (f; DAV; EGG; X17295387); Soporific (f; VOD); Stomachic (f; CRC); Tonic (f; RAR); Toxic (f; EGG; RAR); Tranquilizer (f; DAV); Vermifuge (f; CRC).

**Indications:**

Abscesses (f; VOD); Anthrax (f; VOD); Anxiety (f1; X17295387); Arthrosis (f; DAV; EGG; VOD); Bleeding (1; X11025161); Bruises (f; DAV; EGG); Cardiopathy (f; VOD); Congestion (f; DAV; EGG; VOD); Coughs (f; DAV; EGG; RAR); Dermatitis (f; CRC; IED; ULW); Diabetes (f; CRC; DAV; EGG); Diarrhea (f; ULW; VOD); Dysentery (f; ULW; VOD); Dysuria (f; CRC; JFM); Fever (f; EGG; IED); Fractures (f; DAV); Headache (f; CRC); Hemorrhage (1; X11025161); Hepatosis (f; CRC; DAV); High Blood Pressure (f; CRC; DAV; EGG); Hoarseness (f; AHL; DAV; VOD); Inflammation (f; DAV; JFM; VOD); Insomnia (f; DAV; EGG; VOD; X17295387); Malaria (f; IED; ULW); Mastitis (f; VOD); Neuralgia (f; DAV; EGG; VOD); Pain (f; ULW; VOD); Palpitations (f; VOD); Parotitis (f; VOD); Rashes (f; IED); Snake Bite (1; X11025161); Sores (f; IED; VOD); Sore Throat (f; DAV; VOD); Uvulosis (f; DAV); Worms (f; CRC; DLZ).

**Dosages:**

FNFF = !!! Fruits widely eaten (FAC; TAN). Roots, though reportedly poisonous, are cooked and eaten like yams (WOI). Seeds in small doses sedative, in large doses hypnotic (JFM).

- Brazilians consider anxiolytic and sedative (X17295387).
- Brazilians take leaf decoction as vermifuge (JFM).
- Dominicans suggest leaf tea for liver ailments (AHL).
- Dominicans suggest mashed leaves as gargles for hoarseness and sore throat (AHL).
- Haitians drink fruits juice for insomnia and urinary problems (VOD).
- Haitians soften the leaves and apply them to arthritic areas and headaches (VOD).
- Haitians take flower decoction for diarrhea and dysentery (VOD).
- Haitians take fruit and leaf infusion for cardiopathy and palpitations (VOD).
- Haitians use leaf foot bath as a decongestant (VOD).
- Peruvians suggest juiced fruits a/o flowers and leaf infusion as sedative (EGG).
- Trinidadans take leaf decoction for burning urination, diabetes, and high blood pressure (JFM).

#### Downsides:

Leaves, rind, and immature seeds produce HCN, and the strongly poisonous root, containing the alkaloid passiflorine, is emetic and narcotic (JFM). As of July 2007, the FDA Poisonous Plant Database listed 10 titles alluding to toxicity of this species.

#### Extracts:

Contains noradrenalin (DAV). Leaves contain hemolysin (X16007277). Hydroalcoholic leaf extract suggests anxiolytic activity (100, 250, and 500 mg/kg) similar to diazepam on the holeboard (X17295387). Leaf and branch extract showed moderate neutralization against the hemorrhagic effect of *Bothrops atrox* venom (X11025161).

## DEVIL'S PUMPKIN (*Passiflora suberosa* L.) ++

### PASSIFLORACEAE

#### Illustrations:

p 427 (MPG)

#### Synonyms:

*Passiflora hederacea* Cav.; *P. pallida* L.; *P. villosa* Macfad.; fide (MPG; USN).

#### Common Names:

Baleeyail An'its'aamal (Huastec; Mex.; AUS); Corky Passionflower (Fla.; AUS); Devil's Pumpkin (Eng.; USN); Huevo de Gallo (Cuba; AUS); Indigo Berry (Eng.; Vi.; AUS; USN); Ink Berry (Vi.; AUS); Ink Vine (Bar.; AUS); Juniper Berry (Bah.; AUS); Kansel-ak (Kants'il (Maya; AUS); Leontafia (His.; AUS); Meloncillo (Cuba; AUS); Morita (Dor.; AUS); Ñorbo (Peru; SOU); Ñorbo Marron (Peru; SOU); Parchita de Culebra (Ven.; AUS); Tidiane (Dor.; MPG); Wild Pumpkin (Caymans; AUS). (Nscn; American entries diacritically prepared).

#### Activities:

Antiviral (f; MPG); Candidicide (f; MPG); Cyanogenic (1; MPG); Depurative (f; MPG); Diaphoretic (f; MPG); Fungicide (f; MPG).

#### Indications:

*Candida* (f; MPG); Fungus (f; MPG); Infection (f; MPG); Mycosis (f; MPG); Stomatosis (f; MPG); Thrush (f; MPG); Viruses (f; MPG); Yeast (f; MPG).

#### Dosages:

FNFF = ! Ripe fruit pulp of other species eaten (JAD).

- Cubans use the plant as a sudorific (MPG).
- Dominicans take the leaf decoction to improve the blood and for oral candidiasis (MPG).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed nine titles alluding to toxicity of this species.

**GUARANA (*Paullinia cupana* Kunth) ++****SAPINDACEAE****Illustrations:**

p 358 (CR2)

**Synonyms:**

*Paullinia sorbilis* (L.) Mart.

**Notes:**

With antiasthmatic potential, any of the caffeine-containing plants might save a life in my frequent haunts in Amazonian Peru. Dr. Linnea Smith, the resident allopathic physician at the Explorama Lodge, where we do ecotours in Peru, tells an interesting tale about one native who had become used to her theophylline aspirator. On occasion, it seemed to her that her heart was about to jump out of her chest. Linnea assured her that this was one of the side effects. Linnea didn't tell her that people may die of heart problems if they overdo the theophylline, our friendly phytochemical from the rainforest. Albuterol, drug of choice for asthma back in the States, didn't serve her patient as well as theophylline, the older drug which also opens closed air passages. Like so many gringas, she hates to get hopelessly hooked on her pharmaceuticals. Now Linnea, as a well-trained allopathic physician, doesn't like to trust untested folk medicines, but she had high praise for "manteca de lagarto" or "alligator fat." After hearing about it by the jungle grapevine, Linnea visited my friend, herbalist Julia in the Iquitos open air market, and purchased mixed lard (alligator or caiman and other animals, boa is popular too, unfortunately, leading to a black market in animal products). Just an hour or so after trying the lard, her patient's lungs felt like they were opening up. After three weeks, with asthma-inducing weather, no return of the symptoms. Linnea rightly suggests that this could be the placebo effect, but why knock it, if it keeps on working. I'd add some powdered guarana or cacao or tea or coffee to my "alligator lard," if I was suffering from asthma. Remember that caffeine, theophylline, and theobromine all have antiasthmatic activities. Besides, the alligator is supposed to be protected, while guarana, guayusa, and cacao relatives are locally common in the forest. As Linnea said "for now, at least one patient is much, much improved, in fact looking to be cured, from an illness that had previously been devastating her, and possibly threatening her life." Be it caiman, cacao, caffeine, guarana, theobromine, theophylline, or all of the above, whatever works best. People vary about as much in their chemistry as do phytomedicinal plants. Albuterol is albuterol.

**Common Names:**

Brazilian Cocoa (Eng.; RAI); Cupana (Brazil; Peru; Sp.; LOR; MPG; USN); Guanayuva (Brazil; MPG); Guaraná (Brazil; Eng.; Peru; Scn.; Sp.; AH2; CR2; LOR; MDD; MPG; USN); Guarana (Ger.; USN); Guarana Kletterstrauch (Ger.; EFS); Guaranastruik (Dutch; EFS); Guaranazeiro (Brazil; MPG); Quarana (It.; EFS); Quarane (Fr.; EFS); Uabano (Ma.; RAI); Uaranzeiro (Ma.; RAI).

**Activities:**

Adaptogenic (f; FNF; RAI); Analgesic (f; DAV; RAI); Anorectic (f1; APA; MPB; MPG; VAD); Antiaggregant (f1; APA; PHR; PH2; RAI); Antiamnesic (1; JE55:223); Anticoagulant (1; RAI); Antiinflammatory (1; APA); Antioxidant (1; RAI); Antiplatelet (1; HH2); Anti-



radicular (1; RAI); Antiseptic (f; MPB); Antiulcer (1; PR17:1199); Aphrodisiac (f1; APA; CRC; DAV; EGG; PR15:416; VAD); Astringent (f1; CRC; HHB; RAI; SKY); Bactericide (f; RAI); Bitter (1; CRC); Bronchorelaxant (1; PHR); cAMP-genic (1; PR15:416); Cardiogenic (1; PHR; PH2; VAD); Cariogenic (1; APA); Catabolic (1; FT71:S73; SKY); Catecholaminogenic (1; PH2); Cerebrotonic (f; FNF); CNS-Stimulant (1; PH2; SKY); Cyanogenic (1; HH2); Cytotoxic (1; MPG); Digestive (f; VAD); Diuretic (f1; APA; CRC; RAI; SKY); Febrifuge (f; MPG); Gastroprotective (1; PR17:1199); Gastrostimulant (f; PHR; PH2); Genotoxic (1; APA); Hyaluronidase-Inhibitor (1; MPG); Hypertensive (f; RAR; VAD); Immunostimulant (1; HH2); Laxative (f; RAI); Memorogenic (f; RAI); Mutagenic (1; APA); Myorelaxant (1; PHR); Narcotic (f; CRC); Nervine (f1; CRC; RAI); Piscicide (1; MPG); Positive Chronotropic (1; PHR; PH2); Positive Inotropic (1; PHR; PH2); Resorptive (1; HHB); Sedative (f; MPG); Stimulant (f1; APA; CRC; PHR); Thermogenic (1; RAI); Thrombolytic (1; RAI); Tonic (1; CRC; PHR); Vasodilator (1; RAI).

### Indications:

Amnesia (1; JE55:223); Arteriosclerosis (f; MPG; VAD); Asthenia (1; VAD; FT71:S73); Bleeding (f; MPG); Bleorrhagia (f; EGG); Cancer (1; MPG); Cancer, breast (1; MPG); Cardiopathy (f; DAV; MPG); Cellulite (f; RAI); CFS (f; FNF); Colic (f; MPG); Colitis (f; VAD); Constipation (f; FNF); Cramps (f; FNF; RAI); Depression (f; RAI); Diarrhea (f1; APA; CRC; EGG; SKY); Dysentery (f; DAV; EGG; MPG); Dysmenorrhea (f; APA; CRC; PH2); Dyspepsia (f; PH2; RAI); Embolism (f; VAD); Encephalosis (f; FNF); Enterosis (f1; APA; MPB; VAD); Fatigue (f1; CRC; SKY; PH2; RAI); Fever (f; APA; MPG); Gas (f; RAI); Gastrosis (f; HHB); Hangover (f; CRC; RAI); Headache (f1; APA; CRC; PH2; VAD); Heart (f; CRC); High Blood Pressure (f; RAI); Hunger (f; CRC; PH2); Hypotension (f1; FNF; RAI); Impotence (f1; MPB; PR15:416); Infection (f; MPB); Leukorrhea (f; EGG); Low Blood Pressure (f; RAR); Lumbago (f; DLZ; RAI); Malaria (f; APA; RAI); Mastosis (1; MPG); Migraine (f1; APA; CRC; DAV; MPB); Myalgia (f; MPG); Nervousness (f; MPB); Neuralgia (f; CRC; DAV; MPB); Neurasthenia (f; DLZ); Obesity (f1; APA; MPG; RAI; SKY); Oliguria (f1; PH2; RAI); Pain (f; APA; DAV; RAI); PMS (f; RAI); Rheumatism (1; APA; CRC); SAD (f; FNF); Senility (f; MPG); Stress (f; APA); Thirst (f; PH2); Thrombus (1; RAI); Ulcers (1; PR17:1199); Vaginitis (f; RAI).

### Dosages:

FNFF = !! 500–1,000 mg dried herb (APA); 1 g powdered guarana (HH2; PH2); 0.5–4 g powdered guarana (APA; PNC); 1–2 g crushed seed or resin/cup water 3×/day, providing up to 50 mg guaranine each cup (SKY).

- Bolivians suggest the plant for diarrhea, dysmenorrhea, lumbago, migraine, neuralgia, and neurasthenia (DLZ).
- Brazilians suggest the plant for anorexia, cardiopathy, constipation, depression, dermatosis, diarrhea, dysentery, dysmenorrhea, dyspepsia, enterosis, exhaustion, fatigue, fever, gas, gastrosis, headache, impotence, infection, lumbago, malaria, memory, migraine, nervousness, neuralgia, neurasthenia, oliguria, rheumatism, and stress (MPB; RAI).
- Peruvians use the plant for arteriosclerosis, bleorrhagia, cardiopathy, cellulite, convalescence, diarrhea, dysentery, fatigue, fever, hemorrhage, hypotension, impotence, leukorrhea, migraine, neuralgia, obesity, paralysis, and rheumatism (EGG; RAI).

### Downsides:

Class 2d. “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). CNS-stimulant. Contraindicated in anxiety, arrhythmia, gastritis, hypertension, hyperthyroidism, IBS, tachycardia (VAD). Not recommended for excess or prolonged use (they seem to say this about most caffeine-containing plants) (AHP). Lininger et al. (1998) don't say this about all the caffeine containing herbs as

they do about guarana, “Caffeine may have adverse effects on the blood vessels and other body systems as well as on a developing fetus and presumably guaranine would have similar effects ... As with any caffeinated product, guarana may cause insomnia, trembling, anxiety, palpitations, urinary frequency and hyperactivity. Guarana should be avoided during pregnancy and lactation. Long-term use may cause decreased fertility, cardiovascular disease, and several forms of cancer, according to epidemiological studies of caffeine use” (SKY). Seems to me they should, to be fair, have said this under green tea as well. As of July 2007, the FDA Poisonous Plant Database listed 24 titles alluding to toxicity of this species.

#### Extracts:

Caffeine's effects (and hence those of guaranine) are well known and include CNS-stimulation, increasing metabolic rate, and mild diuresis (SKY). Guarana and caffeine apparently counteract scopolamine, improving rats' ability to remember. At 0.3 mg/ml guarana, containing only 0.0062 mg/ml caffeine, was more effective than ginseng in adaptogenic swimming tests. Mice forced to swim did so statistically significantly longer than controls (X9080343). Many caffeine activities are shared, perhaps synergistically with theophylline and theobromine; caffeine is reportedly analeptic 200 scu mus, analgesic-synergist, anti-amnesic, antiapneic, antiapoptotic, antiasthmatic, anticarcinogenic, anticariogenic, antidermatitic, antiemetic, antifeedant, antiflu, antiherpetic, antihypotensive, antinarcotic, antiobesity, antioxidant, antirhinitic, antiserotonergic, antitumor, antiviral, apoptotic, cancer-preventive, cAMP-phosphodiesterase-inhibitor, cGMP-phosphodiesterase-inhibitor, cardiogenic, catabolic, choleric, CNS-stimulant, diuretic, energizer, ergotamine-enhancer, herbicide, hypertensive, hypoglycemic, insecticide, neurotoxic, phosphodiesterase-inhibitor, respirastimulant, stimulant, teratogenic, vasodilator, and viricide. Caffeine's LD<sub>50</sub> = 192 (orl hmn); LD<sub>50</sub> = 355 (orl rat); LD<sub>50</sub> = 127–1,200 (orl mus); LD<sub>50</sub> = 224–246 (orl rbt). (FNF).

### FIVE FINGERS (*Paullinia pinnata* L.) + SAPINDACEAE

#### Common Names:

Barbasco (Eng.; USN); Five Fingers (Eng. translation of African name; UPW); Timbo (Eng.; USN).

#### Activities:

Abortifacient (f; HDN); Analgesic (f; UPW); Antiabortive (f; UPW); Antimalarial (1; HDN); Antioxidant (1; X16680075); Arteriorelaxant (1; X16680075); Aphrodisiac (f; UPW); Cardio- tonic (1; HDN); Cholagogue (f; HDN); Choleric (f; UPW); Cicatrizant (f; DAW); Curare (1; HDN; UPW); Diaphoretic (f; UPW); Diuretic (f; UPW); Emetic (f; DAW); Febrifuge (f; HDN); Hemostat (f; UPW); Homicide (f; DAW; HDN); Lactagogue (f; UPW); Molluscicide (1; HDN); Narcotic (f; DAW); Paramecicide (1; HDN); Piscicide (f; UPW); Plasmodicide (1; HDN); Purgative (f; UPW); Tonic (f; HDN; UPW); Vesicant (f; DAW; UPW); Vulnerary (f; UPW).

#### Indications:

Abortion (f; UPW); Abscesses (f; HDN); Anemia (f; HDN; UPW); Ancylostomiasis (f; UPW); Anorexia (f; HDN); Asthenia (f; HDN; UPW); Bleeding (f; UPW); Boils (f; HDN); Bruises (f; DAW; UPW); Burns (f; UPW); Cardiopathy (f; UPW); Childbirth (f; UPW); Colds (f; UPW); Colic (f; UPW); Coughs (f; UPW); Debility (f; UPW); Dermatitis (f; UPW); Diarrhea (f; HDN; UPW); Dislocation (f; UPW); Dysentery (f; DAW; HDN; UPW); Dysmenorrhea (f; DAW; UPW); Eczema (f; UPW); Edema (f; HDN; UPW); Enterosis (f; UPW); Fever (f; HDN; UPW); Fracture (f; DAW; HDN; UPW); Gastrosis (f; UPW); Gonorrhoea (f; HDN; UPW);

Hemorrhoids (f; HDN); Hepatosis (f; DAW; UPW); Herpes (f; HDN); High Blood Pressure (f1; HDN; X16680075); Hunchback (f; UPW); Impotence (f; UPW; X16680075); Infection (f; UPW); Infertility (f; HDN; UPW); Inflammation (f; UPW); Jaundice (f; UPW); Leprosy (f; HDN; UPW); Lumbago (f; DAW; HDN); Malaria (1; HDN; UPW); Miscarriage (f; UPW); Molluscicide (1; X12080983); Mycosis (f; HDN); Nausea (f; HDN); Nephrosis (f; UPW); Ophthalmia (f; DAW; UPW); Otitis (f; HDN); Pain (f; UPW); Paralysis (f; HDN; UPW); Pertussis (f; UPW); Psoriasis (f; HDN); Pulmonosis (f; DAW; UPW); Rheumatism (f; UPW); Rickets (f; DAW); Snake Bite (f; HDN); Sores (f; DAW; UPW); Splenosis (f; HDN; UPW); Sprains (f; UPW); Stomachache (f; UPW); Stroke (f; UPW); Tetanus (f; UPW); Threadworm (f; HDN); Tonsilosis (f; HDN); Toothache (f; UPW); Ulcers (f; UPW); Urogenitosis (f; UPW); VD (f; UPW); Worms (f; HDN); Wounds (f; UPW).

#### Dosages:

FNFF = ?

- Africans use roots and leaves for erectile dysfunction (X16680075).

#### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed seven titles alluding to toxicity of this species.

#### Extracts:

Rich in polyphenols. Methanolic root and leaf extracts exhibit high antioxidant activity, induce mild transcriptional activity of peroxisome proliferator activated receptor-alpha, and induce arterial relaxation mediated by endothelial nitric oxide release (X16680075).

## SLIPPERPLANT (*Pedilanthus tithymaloides* (L.) Poit.) X

### EUPHORBIACEAE

#### Synonyms:

*Euphorbia tithymaloides* L. (basionym); fide (USN).

#### Common Names:

Bejuco de Estrella (Ma.; Pr.; AVP; JFM); Bird Cactus (Eng.; JFM); Bítamo (Cr.; Ma.; AVP; JFM); Bítamo Real (Cr.; AVP); Candelilla (Ma.; JFM); Chapolxochitl (Mex.; JLH); Christmas Candle (Eng.; JFM); Clavos de Cristo (Ma.; JFM); Coração de Negro (Por.; AVP); Dictamo (Ma.; JFM); Dictamo Real (Cuba; Pr.; AVP; JFM; JTR); Dois Aores (Por.; AVP); Dumbcane (Eng.; JFM); Fiddle Flower (Eng.; JFM); Flecha (Mex.; JLH); Gallito Colorado (Pr.; JFM; JTR); Grosses Oreilles (Guad.; Mart.; AVP); Herbe à Cors (Guad.; Mart.; AVP); Ipecacuanha (Pr.; Ven.; AVP; JTR); Ipecacuanha Bâtard (Haiti; Pr.; AVP; JTR); Ipecacuanha de la Tierra (Dor.; Ma.; JFM); Ipeca de Santo Domingo (Ma.; JFM); Itamo (Ma.; JFM); Itamo Real (Cuba; Pr.; AVP; JFM; JTR; RCP10(1)); Japanese Poinsettia (Eng.; USN); Jew Bush (Eng.; USN); Ladyslipper (Eng.; USN); Lait à Cors (Guad.; Mart.; AVP); Milkbush (Eng.; USN); Minca-patli (Mex.; JLH); Mirtle (Eng.; AVP); Monkey Fiddle (Eng.; JFM); Nigger Mouth (Eng.; JFM); Oreja de Conejo (Sp.; JFM); Padus Leaved Slipper Plant (Eng.; AVP); Palomilla (Sp.; AVP); Pantoufflé (Guad.; Mart.; AVP); Pantoufflier (St. Bart.; AVP); Patagon (Guad.; Mart.; AVP); Periquita (Ma.; JFM); Pie de Nino (Ma.; JFM); Pie de Santo (Ma.; JFM); Pinipini (Ven.; AVP); Pinpiniche (Mex.; JLH); Pinyipinyi (Ma.; JFM); Ponopinito (Ma.; Ven.; JFM; JLH); Redbird Cactus (Eng.; AVP; USN); Redbird Flower (Eng.; USN); Sapatinho do Diabolo (Por.; AVP); Slipper Flower (Eng.; USN); Slipperplant (Eng.; Wi.; JTR; USN); Tomo Real (Ma.; JFM); Tuturutú (Ven.; AVP; JFM); Zapatico (Dor.; AHL; AVP; JFM); Zapatilla (Col.; Cr.; JFM); Zapatilla del Diablo (Brazil; AVP; JFM); Zapatitos (Ma.; JFM).

**Activities:**

Abortifacient (f; JFM; JTR; X16223515); Analgesic (f; JFM); Antibiotic (f; X16223515); Anti-hemorrhagic (f; X16223515); Antiinflammatory (f1; X16223515); Antiseptic (f; X16223515); Antitumor (f; JLH; X16223515); Antiviral (f; X16223515); Depurative (f; JTR); Emetic (f; JFM; JTR; X16223515); Emmenagogue (f; JFM; JTR); Pectoral (f; JFM; JTR); Purgative (f; JFM; JTR); Sialagogue (f; JFM; JTR).

**Indications:**

Amenorrhea (f; JFM); Aphonia (f; JFM; JTR); Asthma (f; JFM); Bacteria (f; X16223515); Bleeding (f; X16223515); Bleorrhagia (f; JTR); Bronchosis (f; JFM; JTR); Callus (f; JFM); Cancer (f; JFM; JLH; X16223515); Carcinoma (f; JTR); Corns (f; JLH); Coughs (f; JFM); Dysmenorrhea (f; JFM; JTR); Earache (f; JFM); Fungus (f; JFM); Hemorrhage (f; X16223515); Hernia (f; JFM); Herpes (f; JTR); Infection (f; X16223515); Inflammation (f1; JFM; X16223515); Laryngosis (f; JFM; JTR); Leukoderma (f; WOI); Pain (f; JFM; JTR); Ringworm (f; JFM); Sores (f; JFM); Sore Throat (f; JFM; JTR); Stomatosis (f; JFM); Syphilis (f; JFM; JTR); Toothache (f; JFM; JTR); Tumors (f; JLH; X16223515); VD (f; JFM; JTR); Viruses (f; JTR; X16223515); Warts (f; JFM; JTR); Xerostoma (f; JFM).

**Dosages:**

FNFF = X, though said that sugared nectar is edible (JTR). Boil 10 leaves in ½ liter water 15 min, cool and add lemon and honey, using as a gargle every 3 hr (JFM); 2–3 drops latex as (dangerous) purgative (JFM); 4–5 drops fresh latex in ½ glass water as (dangerous) emetic.

- Cubans apply the latex to carcinoma and warts (JTR).
- Cubans consider the flowers pectoral (JTR).
- Cubans consider the plant analgesic, antidysmenorrheic, emetic, emmenagogue, and purgative, using plant decoction for eruptions and menstrual pain (JTR).
- Cubans consider the root abortifacient (JTR).
- Latinos make decoction of 10 leaves per ½ liter water adding lemon and honey, boiling 15 min, gargling every 3 hr for sore throat (JTR).
- West Indians respect the depurative plant for syphilis (JTR).

**Downsides:**

Not covered (AHP; KOM; PHR). Since it is popular in Cuna and not covered by the TRAMIL Commission (TRA), I have scored it as too dangerous for casual consumption. Latex acrid and caustic, sometimes vesicant. As of July 2007, the FDA Poisonous Plant Database listed 15 titles alluding to toxicity of this species.

**Extracts:**

Tincture showed antiinflammatory activity, inhibiting carrageenan-induced rat paw oedema with intraperitoneal administration (X16223515).

**AVOCADO (*Persea americana* Mill.) +++****LAURACEAE****Illustrations:**

p 129 (L&W)

**Synonyms:**

*Laurus persea* L.; *Persea gratissima* C.F. Gaertn.; *P. leiogyne* S.F. Blake; *P. persea* (L.) Cock-erell; fide (JTR; POR).

**Notes:**

As one of the best sources of oleic acid, the American avocado might prove to be as good a food pharmaceutical for breast cancer as the biblical Mediterranean olive (X15642702). Avocado as it comes off the tree tastes much better than olive off the tree. Plant reportedly sacred to the Iwa Zaka (VOD, citing Metraux, 1959).

The +++ safety score applies only to the fruits; leaves and seeds are much less safe.

**Common Names:**

Abacado (Por.; AVP); Abacasi (Culina; Sa; EGG; RAR); Abacate (Brazil; Ma.; Por.; AVP; JFM; L&W; USN); Abacateiro (Brazil; Por.; JFM; L&W); Abocate (Sp.; EGG; RAR); Abocateiro (Por.; AVP); Abokado (Japan; USN); Abuacate (Mex.; AVP); Acapa (Ashaninka; Campa; EGG; RAR; SOU); Advocaat (Dwi.; Sur.; AVP; L&W); Advokaat (It.; AVP); Advokaat Peer (Dutch; EFS); Advokatfrucht (Ger.; EFS); Aguacate (Cuba; Sp.; EGG; JTR; RAR); Aguacate de Anis (Sal.; AVP); Aguacate Oloroso (Mex.; MPG); Aguacate Xihine (Mex.; JTR); Aguacate Zihine (Mex.; MPG); Aguacatillo (Mex.; AVP); Aguacote (Bel.; BNA); Ahuacatl (Mex.; RAR); Alligator Birne (Ger.; RAR); Alligator Pear (Eng.; Ocn.; AH2; RAR; VOD); Amo (Cr.; AVP); Apache (Sa.; EGG; SOU); Apricot (Vi.; AVP); Apricot Pear (Vi.; L&W); Auacatl (Nahuatl; MPG); Avocado (Eng.; Ger.; Scn.; Sp.; AH2; AVP; RAR; USN); Avocadobaum (Ger.; USN); Avocado-palme (Ger.; USN); Avocado Pear (Eng.; Trin.; AVP; L&W; VOD); Avocat (Haiti; Ma.; AVP; JFM); Avocatero (Sp.; AVP); Avocatier (Fr.; Haiti; AVP; JFM; USN); Avvocatesco (It.; AVP); Avvocato (It.; AVP); Awacati (Dwi.; Ma.; JFM; L&W); Bois Anis (Fwi.; AVP); Butter Pear (Bel.; Ma.; AVP; JFM); Caí (Aguaruna; Huambisa; Jibaro; EGG; RAR); Creme Vegetal (Por.; AVP); Cupanda (Ma.; Mex.; JTR; MPG); JFM); Cura (Col.; Ven.; AVP); Curo (Col.; AVP); Curo Manso (Ma.; JFM); Dikora (Cr.; AVP); Huirra Palta (Peru; Que.; Sp.; EGG; LOR; MDD; RAR); Huirra Palto (Peru; Que.; L&W; RAR); Ju (Ma.; JFM); Kái (Aguaruna; EGG); Kirtum (Mex.; MPG); Louro Abacate (Por.; AVP); Numa (Tikuna; SAR); Oj (Ma.; JFM); On (Bel.; Ma.; Maya; BNA; JFM; MPG); Onnyoo (Barasana; SAR); Pagua (Mex.; AVP; JTR); Pahta (Amarakaeri; MD2); Pahua (Mex.; AVP); Palltay (Que.; EGG; RAR); Palta (Arg.; Chile; Ecu.; Peru; Piro; Que.; Sp.; Yine; EGG; LOR; L&W; MD2; MDD; RAR); Paltai (Que.; EGG; RAR); Palta Moena (Que.; EGG; RAR); Palte (Yanasha; EGG); Palto (Arg.; Col.; Peru; Que.; Sp.; EGG; LOR; MDD; RAR); Panta (Ese'aja; MD2); Parata (Cashibo; EGG; RAR); Paratai (Amahuaca; Shipibo/Conibo; MD2); Parité (Ashaninka; Campa; Que.; EGG; RAR; SOU); Parta (Peru; EGG); Parte (Amuesha; RAR); Paua (Ma.; JFM); Pautl (Nahuatl; MPG); Pear (Bel.; Ma.; Wi.; AVP; JFM); Pepa de Palta (Ecu.; BEJ); Pera Abacate (Por.; AVP); Pero Avvocato (It.; EFS); Perse Agasi (Tur.; EFS); Persee (Fr.; EFS); Phalt'aya (Aym.; DLZ); Poire d'Avocat (Fwi.; AVP); Pye Zaboka (Creole; Haiti; VOD); Sarin (Ulwa; ULW); Saring (Ulwa; ULW); Sikya (Ulwa; ULW); Tanalahuate (Mex.; JTR); Trapp Avocado (Eng.; USN); Tzatzan (Mex.; MPG); Um (Ma.; JFM); Un (Ma.; JFM); Xinene (Ma.; Mex.; Zapotec; AVP; JFM); Yas (Cr.; AVP); Zabelboc (Haiti; AVP); Zaboca (Creole; Haiti; Ma.; AVP; JFM; L&W; VOD).

**Activities:**

Abortifacient (f; DAD; DAV; EGG; JFM; RAR; ULW); Acaricide (f; EGG); Amebicide (f; EGG); Analgesic (1; X12165331); Anorectic (1; X12097685); Anthelmintic (1; JNU); Anticataract (1; X17177553); Antidiabetic (1; DIA; X17177553); Antifertility (f; DAD); Antihypertensive (f; JFM); Antiinflammatory (f1; DAV; X12165331; X16109242); Antimaaculitic (1; X17177553); Antioxidant (1; X10820058; X17177553); Antiproliferant (1; X15629237); Antiradicular (1; X10820058); Antiseptic (1; DAD; MPG; WOI); Antispasmodic (f; BEJ); Antitumor (1; X10820058; X15642702; X17177553); Aphrodisiac (f; DAD; DAV; EGG; JFM; JNU; VOD); Astringent (f; DAD; JFM); Bactericide (1; WOI; X8018898); Calcium-Channel Blocker (1; X15990249); Cardioprotective (f1; HOC; X17177553); Carminative (f; AHL; BOW; DAD; VOD); Chemopreventive (1; X10820058; X15629237; X17177553); Cholagogue

(f; AHL; VOD); Cicatrizant (f; MPG); Contraceptive (f; DAV; EGG; SAR); COX-2-Inhibitor (1; X11193428); Cysteine-Proteinase-Inhibitor (1; X8611758); Cytotoxic (1; MPG; X9644064); Deobstruent (f; AAB); Diuretic (f; AHL; DAD; DAV; JFM; VOD); Emmenagogue (f12; DAV; JFM; MPG; TRA; VOD); Emollient (f1; DLZ; PHR; PH2); Expectorant (f; HOC; JFM); Fungicide (1; X10872209); Glutathione-S-Transferase-Inducer (1; X10936680); Hematonic (f; JFM); Hemostat (f; EGG); Hepatoprotective (1; X11368579; X15773170); Hypercholesterolemic (1; X12097685); Hypertensive (f; WOI); Hypocholesterolemic (1; JNU; TGP); Hypotensive (f; BOW; JFM; VOD); Hypotriglyceridic (1; JNU); Hypouricemic (f; TGP); Lactafuge (1; TRA); Larvicide (1; X9644064); Laxative (f; DAD); Litholytic (f; DAV); NO-Inhibitor (1; X11193428); Parasiticide (f; DAD); Pectoral (f; VOD); Piscicide (f; DAD); Poison (f; DAD); Propecic (f; BOW; SOU); Proteoglycanogenic (1; X16109242); Protisticide (1; X15997123); Pulicide (f; EGG); Rodenticide (f; AHL; DAD); Rubefacient (f; DAD); Spermatogenic (f; EGG); Stomachic (f; DAV); Tonic (f; EGG); Trypanocide (1; X15997123); Uricosuric (f; DAV); Uterotonic (1; BOW; TRA); Vasorelaxant (1; X15990249); Vermifuge (f; DAD).

### Indications:

Alopecia (f; DAV; EGG; SOU); Alzheimer's (1; X11193428); Amebiasis (f; DAV; EGG; RAR); Amenorrhea (f12; JFM; TRA; VOD); Anemia (f; DAV; JFM; VOD); ARMD (1; X17177553); Arthrosis (f1; EGG; X11069724; X16278282); Asthma (f; EGG); Atherosclerosis (1; JNU); *Bacillus* (1; MPG); Bacteria (1; WOI; X8018898); Bleeding (f; DAD); Bleorrhagia (f; MPG); Bruises (f; DAD); Burns (f; EGG); Calculus (f; DAV); Cancer (1; JLH; JNU; X10820058; X11193428); Cancer, breast (1; X15642702); Cancer, colon (1; X11193428); Cancer, labia (f; JLH); Cancer, prostate (1; X15629237; X17177553; X9644064); Cancer, skin (1; X11193428); Cardiopathy (1; X17177553); Caries (f; HOC); Cataracts (1; X17177553); Catarrh (f; DAD; EGG; JFM); Chagas' (1; X15997123); Cholera (1; X8018898); Colds (f; AAB; JFM; MD2); Colic (f; DLZ; EGG); Coughs (f; AAB; DAD; JFM); Dandruff (f; DAD; DAV; EGG; MD2); Dermatitis (f1; DAD; EGG; MPG; PH2); Diabetes (f1; AHL; DAD; DAV; DIA; EGG; RAR; ULW; X17177553); Diarrhea (f; AAB; JFM; MD2; RAR; ULW; VOD); Dysentery (f; DAV; JFM; MD2; VOD); Dysmenorrhea (f; AAB; AHL; DAD); Dyspepsia (f; AAB; MD2); Dysuria (f; MPG); Eczema (f1; TGP); Enterosis (f; AAB; BEJ); *Escherichia* (1; MPG; WOI); Fertility (f; DAV); Fever (f; AAB; DAD; JFM); Frigidity (f; JFM); Fungus (1; X10872209); Gas (f; JFM); Gastrosis (f; VOD); Gout (f; JFM; SOU; TGP); Headache (f; AAB; JFM); Hematoma (f; DAD); Hemoptysis (f; DLZ); Hemorrhoids (f; JFM); Hepatosis (f1; DAD; DAV; JFM; SAR; VOD; X11368579; X15773170); High Blood Pressure (f; AAB; DAD; JFM; VOD); High Cholesterol (1; JNU; TGP); High Triglyceride (1; JNU); Hysteria (f; ULW); Ichthyosis (1; PHR; PH2); Impotence (f; JFM; VOD); Infection (1; WOI); Inflammation (f1; MPG; X11193428); Jaundice (f1; VOD; X15773170); Leucorrhea (f; EGG); Maculitis (1; X17177553); Malaria (f; DAD); Mastosis (f; EGG); Metrorrhagia (f; DAD); Mucus Problems (f; JFM); Mycosis (1; X10872209); Nephrosis (f; EGG); Neuralgia (f; DAD; MPG); Obesity (1; X12097685); Ophthalmia (f; VOD); Osteoporosis (1; TGP); Pain (f1; BEJ; X12165331); Poor Milk Supply (1; TRA); Psoriasis (f1; TGP; X11586013); Puerperium (f; VOD); Pulmonosis (f; DAD); Pyorrhea (f; DAD); Respirosis (f; ULW); Rheumatism (f1; AAB; DAD; EGG; JFM); Ringworm (f; MD2); *Salmonella* (1; MPG); Scabies (f; DAD; MD2); Seborrhea (f; EGG); *Shigella* (1; MPG); Snake Bite (f; DAV; EGG; RAR); Snoring (f; EGG); Sores (f; MD2); Sore Throat (f; DAD); Spondylosis (1; X16278282); Sprains (f; AAB; DAD); *Staphylococcus* (1; MPG); Stones (f; DAV); Swelling (f; VOD); Toothache (f; DAD; EGG); Whitlows (f; JFM); Worms (f; HOC; JFM); Wounds (f; DAD; HOC; VOD); Wrinkles (f; TGP).

### Dosages:

FNFF = !! Fruit pulp (and only fruit) food pharmacy (JAD).

- Afro-Brazilian Candomblé religion, the leaf tea is drunk for swelling and urinary retention (VOD).
- Amazonians take seed decoction each month during period as contraceptive (SAR).

- Belizeans, for “empacho” (intestinal obstruction), grind 1 seed, boil in 2 cups water, drink 1 cup hot 2×/day (AAB).
- Bolivians suggest grated seed or shoot decoction for diarrhea (DLZ; JFM).
- Brazilians take leaf decoction for amenorrhea, diarrhea, and rheumatism (JFM).
- Costa Ricans take leaf infusion for high blood pressure (JFM).
- Cubans take buds for cough and cold, boiling those of a purple variety as abortifacient (JTR).
- Haitians apply the leaf sap in ophthalmia (VOD).
- Haitians consider the leaf tea carminative, emmenagogue, and hypotensive (VOD).
- Haitians take leaves and seeds for diarrhea and dysentery (VOD).
- Jamaicans take leaf decoction as blood tonic to relieve colds and apply to fever and pain (JFM).
- Madre de Dios Peruvians use steam baths of leaves from avocado, cassava, guava, and lemongrass for colds and rejuvenation (MD2).
- Madre de Dios Peruvians use toasted seed for diarrhea, dysentery, and dyspepsia, and apply mashed seeds to ringworm and sores (MD2).
- Mayans bind feet of fever patients with the leaves (JFM).
- Mexicans poultice the fruit pulp onto tumors (JLH).
- Panamanians take decoction for hepatitis and high blood pressure (JFM).
- Peruvians suggest the fruit juice or pulp for alopecia, dandruff, dermatitis, ringworm, and seborrhea (EGG; MD2).
- Peruvians suggest the leaf infusion for anemia, arthrosis (3×/day), asthma, catarrh, snoring, and stomach problems (EGG).
- Peruvians suggest the seed infusion for ameba (EGG).
- Shuar take grated seed in aguardiente for toothache (SAR).
- Tramileños suggest 120–240 ml decoction every 6–8 hrs as emmenagogue (TRA).
- Yucatanese believe the seeds are aphrodisiac (JFM).
- Yucatanese take 2 tbsps sweetened decoction (5–6 leaves and bark in 400 cc water) every 2 hrs for catarrh, cough, and dysmenorrhea or amenorrhea (JFM).

### Downsides:

Not covered (APA; AHP; KOM). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). But they designate no dosage! (JAD). Ingestion of the leaves has proved fatal to rabbits. Leaves contain dopamine and the leaf oil contains methyl chavicol. Ingestion of leaves a/o bark has caused mastitis in cattle, horses, rabbits, and goats, and large doses have been fatal to goats. Avocado leaves in a pool have killed the fish. Unripe avocados said to be toxic; canaries have died after ingesting ripe fruit. Two resins derived from the skin of the fruit are toxic to guinea pigs by subcutaneous and peritoneal injection. Ground seeds mixed with cornmeal or cheese have been used to poison rodents (DAD). Foliage and immature fruit can cause severe cardiomyopathy in ostriches, sometimes fatal (X7595917). LD<sub>50</sub> water extracts of leaves = >8,828 mg/kg ipr rat (TRA); LD<sub>50</sub> water extracts of fruits = >12,500 mg/kg orl rat (TRA); LD<sub>50</sub> water extracts of leaves = >12,500 mg/kg orl rat (TRA). As of July 2007, the FDA Poisonous Plant Database listed 53 titles alluding to toxicity of this species.

### Extracts:

Leaf extracts may decrease glucose absorption; bark and seed extracts used for diabetes (DIA). Mannoheptulose: antiinsulinogenic, hyperglycemic (diabetics might avoid mannoheptulose). Persenone-A: antiinflammatory 20 μM, antioxidant, antiradicular, antitumor 20 μM, antitumor-promoter IC<sub>50</sub> = 1.4 μM, chemopreventive, COX-2-inhibitor 20 μM, NO-inhibitor IC<sub>50</sub> = 1.2 μM, superoxide-inhibitor (FNF).

**GARLIC WEED (*Petiveria alliacea* L.) +**  
**PHYTOLACCACEAE**

**Illustrations:**

fig 120 (MPG); f 230 (IED)

**Synonyms:**

*Petiveria foetida* Salisb.; *P. hexandra* Sesse & Moc.; *P. ochroleuca* Moq.; *P. octandra* L.; *P. paraguayensis* Parodi.; fide (MPG).

**Notes:**

In the Afro-Brazilian Candomblé religion, this herb is associated with the deities Ogun and Iansa (VOD, quoting Voeks, 1997). Many of my friends in Peru, like Dominican Caribs, believe the herb repels evil spirits. My shaman even has a “jicaro” about the herb, which he sings during the ayahuasca ceremony, and which I occasionally recite. Around Madre de Dios, they think the smoke of the leaves will repel bats (MD2).

**Common Names:**

Ajillo (Cr.; AVP); Anamo (Pan.; MPG); Anamu (Col.; Cuba; Dor.; Guat.; Pan.; Pr.; Ven.; AHL; IED: JTR; MPG); Apacín (Guat.; MPG; RAI); Apacina (Sal.; MPG; RAI); Apasote de Zorro (Guat.; JTR); Apazote de Zorro (Ma.; JFM; RAI); Aposin (Ma.; RAI); Aradan (Wi.; GMJ); Avé (Creole; Haiti; AHL; AVP; VOD); Avette (His.; AHL); Bana Boains (Shipibo/Conibo; EGG); Calauchin (Ma.; RAI); Chanviro (Peru; Sp.; EGG; LOR; MPG); Chasser Vermine (Haiti; AHL; RAI); Conga Root (Eng.; JFM; USN); Congo Root (Pr.; RAI; USN); Dahuata (Tikuna; EGG; SAR); Dandaye (Guad.; AVP); Devant Negre (Guad.; AVP); Douvan-Douvan (Creole; Guy.; GMJ); Douvan Negre (Wi.; GMJ); Douvant (Ma.; RAI); Emeruaiuma (Ma.; RAI); Epacina (Sal.; AVP); Erva de Alho (Por.; AHL); Erva de Guine (Por.; AHL); Erva Guine (Ma.; JFM); Erva Pipi (Brazil; MPG); Erva Tipi (Brazil; MPG); Feuilles Ave (Haiti; AHL; AVP); Fèy Avé (Creole; Haiti; VOD); Garlic-Scented Guinea Weed (Jam.; AHL); Garlic Weed (Eng.; CR2; RAI); Guine (Brazil; MPG); Guineahen Plant (Bel.; AVP; BNA); Guineahen Weed (Bel.; Eng.; Jam.; AVP; BNA; RAI; VOD); Gullyroot (Pr.; RAI; USN); Herba Hedionda (Col.; MPG); Herbe aux Poules (Haiti; AHL); Herbe aux Poules de Guinee (Guad.; AHL); Herva d’Alho (Ma.; JFM); Hierba de las Gallinitas (Guat.; Mex.; AVP; JTR; MPG); Hierba del Zorrillo (Mex.; USN); Hierba de Toro (Sal.; MPG); Hispasin (Ma.; JFM); Hoja del Zorrillo (Mex.; USN); Huevo de Gato (Dor.; AHL; RAI); Ipacina (Ma.; Nic.; JFM; JTR); Irgat



(Cuna; Pan.; IED); Jazmillo (Col.; MPG); John Doctor (Ma.; JFM); Kadanyumna (Pali-  
kur; GMJ); Kiski Sabatkira (Ulwa; ULW); Kojo Root (Ma.; JFM; RAI); Lancetilla (Col.;  
SAR); Liane Ail (Creole; Guy.; GMJ); Mal Pourri (Haiti; AHL; AVP); Mapurite (Ma.;  
Ven.; JTR; RAI); Mapurito (Col.; MPG); Mazote (Sal.; MPG); Micuna (Peru; EGG); Mic-  
ura (Aym.; Bol.; Peru; Que.; Sp.; DLZ; EGG; LOR; MPG); Mikur-Ka'a (Ka'apor; RAI);  
Mocosa (Peru; Sp.; EGG; LOR); Mopirito (Ven.; MPG); Mozote (Sal.; AVP); Mucara  
(Peru; EGG; RAR); Mucura (Col.; Peru; Sp.; LOR; MDD; RAI; SAR); Mucura Caa (Ma.;  
RAI); Mucura Hembra (Peru; EGG; RAR); Mucura Macho (Peru; EGG); Mucura Saa  
(Por.; GMJ); Namu (Cuba; MPG; JTR); Ndongu-Ndongu (Boni; GMJ); Nii Boains (Ship-  
ibo/Conibo; MD2); Niwis (Shipibo; EGG; SOU); Obeah Bush (Ma.; JFM); Ocano (Ma.;  
RAI); Payche (Guat.; Mex.; AVP; MPG; RAI); Pepi (Por.; AHL); Petivere a Odeur d'Ail  
(Haiti; AHL); Pipi (Arg.; Ven.; JTR; MPG; RAI); Pipi Root (Ma.; JFM); Pisajachu (Cal-  
lawaya; DLZ); Radie Pian (Creole; Guy.; GMJ); Raiz de Congonha (Ma.; JFM); Raiz de  
Guine (Ma.; JFM); Raiz de Pipi (Col.; Ven.; MPG); Sacha Ajo (Peru; Sp.; EGG; LOR);  
Skunkroot (Bel.; BNA); Skunkweed (Bel.; BNA); Stinking Toe (Eng.; Jam.; AVP; VOD);  
Strongman's-Weed (Jam.; USN); Sunikila (Que.; DLZ); Surua (Ulwa; ULW); Tipi (Brazil;  
MPG; RAI); Tipe Verdadeiro (Por.; AVP); Tipim (Ma.; JFM); Tomorembo (Amahuaca;  
MD2); Verbena Hedionda (Ma.; RAI); Verocine Puante (Haiti; AHL); Verveine Pouante  
(Guad.; Haiti; St. Bart.; AVP; RAI); Vèvenn Pyant (Creole; Haiti; VOD); X-Payche Zor-  
rilo (Mex.; AVP); Yerbajo de Ajo (Ma.; JFM); Zèb a Poul (Creole; Haiti; VOD); Zorrillo  
(Bel.; Guat.; Mex.; BNA; MPG; RAI).

### Activities:

Abortifacient (f1; TRA; ULW; VOD; WOI; X1841991; 60P); Analgesic (f1; PM9:235; TRA;  
ULW; X1841991; X1842010; 60P); Anesthetic (1; TRA); Antiaggregant (1; RAI); Antidote  
(f; VOD); Antifertility (f; EGG); Antiherpetic (f; JTR); Antiinflammatory (1; PM9:235;  
RAI; TRA; 60P); Antileukemic (1; RAI); Antilymphomic (1; RAI); Antimitotic (1; MPB;  
X8081301); Antioxidant (1; RAI); Antiradicular (1; RAI); Antiseptic (f1; TRA; VOD; 60P);  
Antispasmodic (f1; TRA; VOD; WOI; 60P); Antitumor (1; RAI; TRA; 60P); Antitussive (f;  
DAV); Antiviral (1; RAI; X12138331); Anxiolytic (1; RAI); Aphrodisiac (f; IED; RAI); Bacte-  
ricide (1; RAI; X12657295); Candidicide (1; RAI; 60P); CNS-Depressant (1; DAV); Contracep-  
tive (f; DAV; RAR); Cyclooxygenase-Inhibitor (1; RAI; TRA); Cytotoxic (1; RAI); Depurative  
(f; 60P); Diaphoretic (1; RAI); Diuretic (f1; EGG; JFM; RAI; VOD; WOI); Emmenagogue  
(f1; EGG; IED; JFM; RAI; VOD; WOI); Expectorant (f; RAI; WOI; 60P); Febrifuge (f; IED;  
RAI; X1841991); Fungicide (1; RAI; X12657295); Hallucinogenic (f; EGG); Hypoglycemic (1;  
RAI; X2100880); Immunostimulant (1; RAI; X10084333; 60P); Insecticide (f1; MPG; RAI;  
VOD; 60P); Insectifuge (f; EGG; 60P); Lachrymatory (1; X12657295); Lymphocytogenic (1;  
RAI); Mitogenic (1; AUS); Mutagenic (1; X1377342); Narcotic (f; EGG; RAR); Nematocide  
(f; 60P); Nervine (f; JFM); Pediculicide (f; JFM); Phagocytotic (f1; MPB; 60P); Protisticide  
(1; AUS; RAI); Sedative (1; RAI; X1841991); Sternutatory (f; DLZ); Sudorific (f; EFF; JFM);  
Tonic (f; EGG); Trypanocide (1; AUS; X9741882); Uterotonic (f1; MPG; 60P); Vermifuge (f1;  
JFM; RAI; VOD).

### Indications:

Abscesses (f; RAI); Acne (f; RAI); Amenorrhea (f; RAI); Anxiety (1; RAI); Arthrosis (1;  
X1842010; 60P); Asthenia (f; VOD); Asthma (f; EGG; JFM); *Bacillus* (1; MPG); Bacteria  
(1; X12657295); Beriberi (f; EGG); Bites (f; EGG); Boils (f; JFM; RAI); Bronchosis (f; DAV;  
EGG; SAR); Bugbites (f; DAV); Cancer (1; HAD; IED); Cancer, brain (1; RAI); Cancer, liver  
(1; RAI); *Candida* (1; MPG); Cardiopathy (f; JFM; RAI); Caries (f; RAI); Catarrh (f; JTR);  
Chagas' (1; AUS); Childbirth (f; IED; RAI; VOD; 60P); Cholera (f; RAI; 60P); Colds (f; RAI;  
60P); Colic (f; EGG); Coughs (f; MD2; RAI); Cramps (f1; JFM; RAI; VOD; 60P); Cystosis  
(f; JFM; MPG; RAI); Debility (f; VOD); Dermatitis (f; RAI; TRA; 60P); Diabetes (1; RAI;

X2100880); Diarrhea (f; JFM); Dropsy (f; JTR); Dysmenorrhea (f; JFM); Dyspepsia (1; TRA); Earache (f; SAR); Edema (f1; RAI; TRA; VOD); Erysipelas (f; RAI); *Escherichia* (1; MPG); Fever (f; JFM; MD2); Flu (f; EGG; JFM; TRA; VOD); Fungus (1; MPG; RAI; X12657295); Gas (f; RAI); Gastrosis (f; RAI); Gonorrhea (f; EGG); Headache (f; JFM; MD2; TRA; VOD); Hepatitis-C (1; RAI); Hepatosis (1; RAI); HIV (1; AUS); Hives (f; RAI); Hoarseness (f; JFM); Hysteria (f; JFM; RAI; SOU); Induration (f; JLH); Infection (f12; AKT; JFM; MPG; SHT; VOD; X12657295); Inflammation (f1; JFM; MPG; TRA; VOD); Insanity (f; MPG); Itch (f; MD2); *Leishmania* (f; MD2); Listeria (1; X10084333); Malaria (f; RAI); Myalgia (f; RAI; TRA); *Mycobacterium* (1; MPG); Mycosis (1; MPG; RAI; X12657295); Nephrosis (f; RAI); Nervousness (f; AHL; RAI; WOI; 60P); Odontosis (f; RAI); Ostealgia (f; MPG); Osteoarthritis (f1; RAI); Pain (f1; JFM; PM9:235; TRA; ULW; X1842010; 60P); Paralysis (f; EGG; JFM; RAI; SOU); Pertussis (f; GMJ; JFM; WOI); Pneumonia (f; DAV; SAR); *Pseudomonas* (1; RAI); Pulmonosis (f; IED; ULW); Pyorrhea (f; MPG); Rabies (f; RAI; SOU); Respirosis (f; RAI); Rheumatism (f; JFM; MD2; TRA; VOD); Ringworm (f; JFM; MD2; RAI); Scabies (f; DAV; MD2); *Shigella* (1; RAI); Sinusitis (f; RAI; TRA); Snake Bite (f; IED); Sores (f1; MD2; VOD); Spasms (f; JFM); *Staphylococcus* (1; MPG; RAI); Stings (f; JTR; MD2); Thrombus (1; RAI); Toothache (f; EGG; TRA; VOD; 60P); VD (f; EGG; JFM; JTR; RAI; 60P); Viruses (1; X12138331); Worms (f; IED; RAI); Wounds (f1; VOD); Yeast (1; RAI; 60P).

**Dosages:**

FNFF = ?

**Downsides:**

TRAMIL cautions diabetic and pregnant patients not to use (TRA). Taylor (2005) cautions people on blood thinners that the herb has further blood-thinning capacity. As of July 2007, the FDA Poisonous Plant Database listed six titles alluding to toxicity of this species.

**Extracts:**

LD50 360 mg/kg rat (TRA).

**BOLDO (*Peumus boldus* Molina) +  
MONIMIACEAE**

**P**

**Illustrations:**

fig 111 (MPG)

**Synonyms:**

*Boldea boldus* (Mol.); *Boldea fragrans* (Ruiz & Pav.) Gay; *Boldoa fragrans* Ruiz & Pav.; *Peumus fragrans* Ruiz & Pav.; *Ruizia fragrans* Ruiz & Pav.; fide (MPG; USN).

**Notes:**

Though Taylor (2005) listed “molina” as a common name for boldo, Molina is the authority for the Latin name for the species.

**Common Names:**

Baldina (Sa.; RAI); Boldina (Sa.; RAI); Boldo (Chile; Eng.; Fr.; Ger.; Sp.; Tur.; CR2; EFS; USN); Boldoa (Sa.; RAI); Boldobaum (Dutch; EFS); Boldoboom (Dutch; EFS); Boldu (Chile; It.; EFS; MPG); Boldus (Sa.; RAI).

**Activities:**

Abortifacient (1; RAI); Analgesic (f; BGB; CRC; RAI); Anesthetic (1; VAD); Anthelmintic (1; BGB; EFS; GAZ); Antiaggregant (f1; RAI; X11310527); Anticholinergic (1; BRU); Antidiabetic (1; X10987997); Antihemolytic (1; X10925398); Antihistaminic (1; FNF; X12747739);

Antiinflammatory (1; APA; MPG; RAI); Antimutagenic (1; X11265593); Antioxidant (1; APA; BGB; RAI; X12747739); Antiperoxidant (1; X12747739); Antiprostaglandin (1; BGB); Antiradicular (1; X12747739); Antirheumatic (f; EFS); Antiseptic (f1; CAN; CRC; EFS); Antispasmodic (12; APA; BRU; KOM; PH2; RAI; SHT); Antiulcer (1; FNF; X12747739); Aperitive (1; VAD); Bactericide (1; MPG); Calcium-Channel-Blocker (1; X12044805); Candidicide (1; MPG); Carcinogenic (1; CRC); Cardiodepressant (1; RAI); Carminative (f1; BGB; RAI); Cholagogue (2; APA; CAN; SHT); Cholekinetic (2; SHT); Choleric (f12; CRC; HHB; KOM; PH2; RAI; SHT); Coloprotective (1; RAI); Convulsant (1; VAD); Decongestant (f; RAI); Demulcent (f; CAN); Depurative (f; RAI); Detoxicant (f1; RAI; X11265593); Digestive (f1; RAI; VAD; X12747739); Diuretic (1; APA; BGB; CAN; RAI); Emetic (1; HHB); Febrifuge (1; RAI); Fungicide (1; MPG; VAD); Gastrostimulant (2; APA; KOM; PH2); Glutathionogenic (1; X11265593); Hepatoprotective (1; APA; BGB; BIS; RAI); Hepatotonic (f12; CAN; EFS; PNC); Hepatotonic (1; X15764158); Hypnotic (f1; BIS; CRC; HHB; VAD); Hypouricemic (1; RAI); Laxative (f1; APA; HHB; RAI; VAD); Myorelaxant (1; APA; BGB; BRU; RAI); Narcotic (f1; EFS; VAD); Nervine (f; BGB); Neurotoxic (1; GAZ); NO-Inhibitor (1; X10987997); Orexigenic (2; PHR); Paralytic (1; RAI); Parasiticide (f1; RAI); Poison (f; CRC); Secretagogue (1; BRU; KOM); Sedative (f1; APA; CAN; EFS; HHB; VAD); Sialagogue (f; RAI); Stimulant (f; CRC; RAI); Stomachic (f1; CAN; HHB); Tonic (f; CRC; EFS; RAI); Uricosuric (1; BIS); Urinary Antiseptic (1; BOW; CAN; RAI); Uterorelaxant (1; RAI); Vasoconstrictor (1; X12044805); Vasorelaxant (1; RAI); Vermifuge (f1; CRC; HHB; RAI); Xanthine-Oxidase-Inhibitor (1; MPG).

### Indications:

Aging (1; APA); Anorexia (f12; PHR; RAI); Arthrosis (f; EFS); Atherosclerosis (1; APA); Autoimmune Disease (1; APA); Bacteria (1; MPG); Bilioussness (2; APA; CAN; SHT); Cancer (1; APA); *Candida* (1; MPG); Cardiopathy (f; RAI); Cholecocystosis (f; BGB; HHB; RAI); Cholecystalgia (f; CAN); Cholelithiasis (1; CAN; HHB; VAD); Colds (f; CRC; RAI); Colitis (1; RAI); Constipation (f1; RAI; VAD); Coughs (f; CRC; RAI); Cramps (f12; APA; BRU; KOM; RAI; SHT); Cystosis (f1; BGB; CAN; PNC; RAI; VAD); Debility (f; RAI); Diabetes (1; X10987997); Diarrhea (f; RAI); Dislocations (f; MPG); Dropsy (f; MPG); Dyskinesia (1; VAD); Dyspepsia (f12; APA; BGB; BRU; KOM; PH2; RAI); Dyspnea (f; RAI); Earache (f; CRC; MPG; RAI); Edema (f; RAI); Enterosis (f12; APA; BOW; KOM; RAI); *Escherichia* (1; MPG); Fever (1; RAI); Fungus (1; MPG); Gallstones (1; BOW; CAN; HHB; PNC; RAI); Gas (f1; BGB; RAI); Gastrosis (f12; CRC; KOM; RAI); Gonorrhea (1; CAN; GMH; HHB; RAI); Gout (f1; APA; BGB; CRC; MPG; RAI); Head Colds (f; CRC; RAI); Heartburn (f; BGB; BRU); Hepatalgia (f; CAN); Hepatosis (f12; APA; CRC; HHB; PHR; RAI; X12747739); High Cholesterol (f; RAI); Hyperglycemia (1; X10987997); Hypertonia (2; KOM); Hypothyroidism (f; RAI); Inappetence (2; PHR); Infection (1; CAN; CRC; EFS); Inflammation (1; APA); Insomnia (f; APA; CAN; EFS; RAI); Kidney Stones (f; RAI); Jaundice (f; CRC; GMH; RAI); Lethargy (f; EFS); Malaria (1; FNF; RAI); Migraine (f; VAD); Mycosis (1; MPG); Nephrosis (f; BGB); Neuralgia (f; MPG); Obesity (f; BOW; PNC); Oliguria (f1; RAI); Pain (f; BGB; RAI); Parasites (1; BOW); Prostatosis (f; BGB); *Pseudomonas* (1; MPG); Rheumatism (f; APA; BGB; CAN; EFS; MPG; RAI); Stomachache (f1; APA; RAI); Stones (1; BRU; VAD); Syphilis (f; CRC; HHB; RAI); Urethrosis (f; RAI); Urogenitosis (f; GMH; RAI); UTIs (1; BOW); VD (f; CRC; HHB; RAI); Vertigo (f; RAI); Water Retention (1; APA; BGB; CAN); Worms (f1; APA; CRC; EFS); Wounds (f; CRC); Yeast (1; MPG).

### Dosages:

FNFF = ! Fruits aromatic and sweet, but apparently not widely eaten; leaves and bark used as a spice in Chile. It looks a little iffy to me, though approved by Commission E (KOM). It is listed by the council of Europe as a natural source of food flavoring. Category N3 implies that boldo can be added to foodstuffs, "in the traditionally accepted manner, although insufficient information is available for an adequate assessment of potential toxicity" (CAN; FAC; HOS);

TAN). 1–2 g leaf (HHB); 3 g dry leaf/day (KOM); 4.5 g dry leaf/day (PHR; PH2); 1–2 tsp (2–3 g) dry leaf/cup water (APA); ½ cup leaf tea 1–2×/day (RAI); 10 g leaf/l as tea, 3 cups/day after meals (VAD); 60–200 mg, as tea, 3×/day (CAN); 0.1–0.3 ml liquid extract (1:1 in 45% alcohol) 3×/day (CAN); 0.5–2 ml tincture (1:10 in 60% alcohol) 3×/day (CAN); 2–4 ml tincture 2×/day (RAI); 25–50 drops tincture (1:5) ½ hr after each meal (VAD); 1–5 g tincture or elixir (HHB); 5 drops boldo oil for urogenitary problems (GMH); 1–2 g capsule 2×/day (RAI).

- Brazilians use for anorexia, bilious problems, cholecystosis, cold, constipation, debility, dyspepsia, dyspnea, enterosis, gallstone, gas, gastrosis, gonorrhoea, hepatitis, insomnia, liver congestion, rheumatism, stomachache, vertigo, and weakness (RAI).
- Chileans use the leaves for anorexia, bilious problems, cholecystosis, colds, cough, cramps, diarrhea, dropsy, earache, edema, enterosis, gallbladder, gallstones, gas, hepatitis, high cholesterol, hypothyroidism, inflammation, jaundice, neuralgia, obesity, oliguria, pain, parasites, rheumatism, sores, stomachache, and syphilis, taking the tea as antioxidant, antiseptic, digestive, neurosedative, and stimulant (MPG; RAI).
- Mapuches use for dislocations and rheumatism (MPG).
- Mexicans use for bile disorders, cholecystoses, dyspepsia, gallstones, hepatoses, pain, and rheumatism (RAI).
- Peruvian Indians take leaves as diuretic and for gallstones and hepatitis (RAI).
- Spanish suggest the leaves for cholelithiasis, constipation, cystitis, dyskinesia, dyspepsia, hepatitis, and migraines (VAD).

#### Downsides:

Class 2b (JAD) 2d. Contraindicated in gallstones, serious hepatoses, and obstruction of the bile duct (AHP). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). Still PH2 cites an old source indicating that long-term consumption of boldine led to color hallucinations, depression, partial motor aphasia, and sound hallucinations (PH2). Commission E reports counterindications for leaf: biliary obstruction, severe liver diseases (KOM). EO and distillates should not be used because of their ascaridole content (AEHD). The diuretic terpinen-4-ol is irritant (CAN) and ascaridole is toxic. Newall, Anderson, and Phillipson (1996) caution against toxicity and irritation from the volatile oil. Because of the irritant oil, its use in pregnancy and lactation is to be avoided (CAN). It’s nice to be cited by Schulz, Hansel, and Tyler (1998), “Because the herb contains substances that are potentially toxic (Duke, 1985), it is not recommended for long term use and should not be taken during pregnancy” (SHT). But that could be carried as far as the Delaney Clause, since all herbs (like all pharmaceuticals) contain substances that are potentially toxic. Given internally in toxic doses, boldine causes great excitement, exaggerates reflexes and respiratory movements, increases diuresis, causes cramps and convulsions, ending in death from centric respiratory paralysis, the heart beating some time after respirations fails. After re-challenge with boldo/fenugreek, it was concluded that they are additive or synergistic with the dangerous anticoagulant warfarin and boldo-fenugreek (X11310527). EO LD<sub>50</sub> = 130 orl rat, LD<sub>50</sub> = 625–1,250 mg/kg der rbt (CAN), convulsant 70 mg/kg (CAN). As of July 2007, the FDA Poisonous Plant Database listed 10 titles alluding to toxicity of this species.

#### Extracts:

(+)-boldine, although being at least 50-fold weaker than diltiazem, shows Ca(2+) channel antagonistic properties but no specificity for coronary dilatation relative to cardiodepression (X12044805). High doses of the hydroalcoholic extract (= tincture) inhibit lipid peroxidation (in rat hepatocyte cultures), and protect such hepatocytes against various xenobiotics (BRU). While overdoses (injected) may cause cramping, boldine has anticholinergic activity causing relaxation of smooth muscle (from the rat’s ileum) (BRU). Alkaloids probably underlie the choleric activity. The total alkaloid content is more choleric than boldine alone (PNC).

**LIMA BEAN (*Phaseolus lunatus* L.) ++****FABACEAE****Synonyms:**

*Phaseolus falcatus* Benth. ex Hemsl.; *P. inamoenus* L.; *P. limensis* Macfad.; *P. lunatus* var. *lunatus*; *P. lunatus* var. *macrocarpus* (Moench) Benth.; *P. lunatus* var. *silvester* Baudet; *P. macrocarpus* Moench; *P. tunkinensis* Lour.; *P. viridis* Piper; fide (USN).

**Common Names:**

Adua (Twi; KAB); Akortormore (Krobo; KAB); Akpatramur (Ga; KAB); Aoi Mame (Japan; TAN); Apateram (Twi; KAB); Aritas Poroto (Sa.; SOU); Avitas Poroto (Sa.; SOU); Avitas Proto (Ma.; JFM); Bumbur Butti (Ben.; DEP); Bunburbutti (Ben.; KAB); Burma Bean (Eng.; KAB; WOI); Butter Bean (Eng.; AVP; VOD); Cachas (Col.; Ma.; IED; JFM); Carolina (Gabon; AVP); Cchichita (Matsigenka; EGG); Chilipuca (Sal.; AVP); Cimra (Ben.; NAD); Civet Bean (S. Afr.; KAB); Cuba (Cr.; AVP); Daful (Bom.; WOI); Dau Day (Ic.; KAB); Dau ke Bac (Ic.; KAB); Dau Ngu (Ic.; KAB); Dau Rua (Ic.; KAB); Dau Vang (Ic.; KAB); Double Bean (Eng.; NAD); Duffin Bean (Eng.; DEP; IHB); French Bean (Eng.; DEP); Frijol Caballero (Cuba; AVP); Frijol Chilipuca (Ma.; JFM); Frijol de Lima (Nic.; Sp.; AVP); Frijol de Mantequilla (Sp.; AVP); Frijol de Media Luna (Sp.; JFM); Frijol de Monte (Sp.; JFM); Frijolillo (Cr.; AVP); Frijol Iztagapa (Sal.; AVP); Guaracao (Ven.; AVP); Haba (Peru; Pi.; Sp.; AHL; EGG; KAB); Habas (Sp.; AHL); Habitas Poroto (Sp.; EGG); Harhua (Ma.; JFM); Harhui (Peru; EGG); Haricot de Lima (Fr.; AVP); Haricot de Sieva (Fr.; Gabon; AVP); Haricot du Cap (Gabon; AVP); Hibbert Bean (Eng.; KAB); Huarhui (Sa.; SOU); Huevo de Piche (Col.; IED); Ixpanque (Ma.; JFM); Ixtapacal (Ma.; JFM); Juron de Venado (Ma.; JFM); Kachang China (Malaya; IHB); Kachang Java (Malaya; IHB); Kachang Mas (Sundanese; IHB); Kachang Serendeng (Malaya; IHB); Kalamaka (Mad.; KAB); Kalamakabe (Mad.; KAB); Kara (Java; IHB); Karakusu (Congo; AVP); Kekara (Java; IHB); Khasi Kollu (Tam.; WOI); Kishomasheke (Congo; EFS); Kisimbo (Congo; AVP); Kratok (Java; IHB); Kursumbulle-Pullie (Hindi; DEP); Lai Tou (China; TAN); Lima Bean (Eng.; AVP; CR2; VOD); Lima Kidney Bean (Eng.; KAB); Lobiya (Pun.; DEP; KAP; WOI); Madagascar Bean (Eng.; LEG); Manteca (Par.; Sp.; AVP); Ngualfila (Mandjia; KAB); Ojanm (Oatiipaeri; Peru; EGG); Pallar (Ma.; Peru; Sp.; AVP; EGG; JFM); Patachete (Ma.; JFM); Patani (Tag.; Vis.; KAB); Pileu (Ma.; JFM); Piloy (Ma.; JFM); Pitanga (Sri.; KAB); Pois Adam (Fr.; Réunion; KAB); Pois Amer (Fr.; Réunion; KAB); Pois d'Achery (Fr.; AVP); Pois de Souche (Fr.; Haiti; AHL); Pois Doux (Fr.; Réunion; KAB); Pois Savon (Fr.; AVP); Pois Sept Ans (Fr.; AVP); Pois Souche (Fr.; AHL); Pois Source (Fr.; St. Lucia; AVP); Pois St. Catherine (Fr.; AVP); Poroto (Sa.; SOU); Poroto de Manteca (Arg.; AVP); Porrosos (Ma.; JFM); Pothudhambala (Sin.; KAB); Pwa d'Souch (Creole; Haiti; VOD); Quimbolito (Pan.; AVP); Rangoon Bean (Eng.; KAB; NAD); Roway (Sundan; IHB); Sebijari (Sur.; AVP); Sieva Bean (Eng.; LEG); Soperi (Par.; Sp.; AVP); Sugar Bean (Eng.; LEG); Tapi-ramo (Ma.; Ven.; AVP; JFM); Tonga Bean (Eng.; KAB); Toubabou Sosso (Malinke; KAB); Towe Bean (Eng.; LEG); Tua Rachaamat (Thai; IHB); White Bean (Eng.; Ma.; JFM); Zab-bache (Pi.; KAB); Zaragosa (Col.; IED).

**Activities:**

Analgesic (f; JFM); Astringent (f; CRC); Cyanogenic (1; CRC); Diuretic (f; VOD); Emetic (f; CRC; JFM); Emmenagogue (f; VOD); Emollient (f; VOD); Febrifuge (f; LEG); Hypocholesterolemic (1; X8672408); Poison (1; CRC; WBB).

**Indications:**

Bright's Disease (f; CRC; WBB); Cancer (f; JLH); Chills (f; JFM); Conjunctivitis (f; VOD); Diabetes (f; CRC; WBB); Dropsy (f; CRC; WBB); Eclampsia (f; CRC; WBB); Enterosis (f; CRC); Fever (f; CRC; KAB; LEG); Headache (f; VOD); High Cholesterol (1; X8672408);

Mastosis (f; CRC); Nephrosis (f; CRC; WBB); Pain (f; CRC; JFM); Poison (1; CRC); Smallpox (f; SOU); Stomachache (f; CRC; WOI); Sties (f; SOU); Tumors (f; JLH); Warts (f; JLH).

#### Dosages:

FNFF = ! Shelled beans boiled and eaten. Sprouts and young seedlings eaten. Malaysians use the pounded leaves to impart a green color to foods; others cook and eat the bitter leaves (FAC; WOI).

- Asian Indians suggest this American bean as a dietary approach to fever (KAB).
- Gringoes (myself) recommend cooked beans and onion to prevent colon cancer, diabetes, and syndrome X (FNF).
- Haitians apply the leaves to the head for conjunctivitis and headache (VOD).
- Haitians suggest the bean flour (in poultices) softens and resolves tumors (VOD).
- Javans poultice seeds on abdomens of children suffering from stomachache (WOI).
- Mexicans use raw black seeds, crushed, to evince vomiting (JFM).
- Nigerians apply powdered seed to tumors (JLH).
- Peruvians suggest seed decoction for “viruela” (EGG).
- Peruvians suggest heated seed be placed in “orzuelo” (EGG).
- Yucatan Mayans apply leaves to painful breast conditions (JFM).

#### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed 119 titles alluding to toxicity of this species.

#### Extracts:

Some primitive varieties may contain significant levels of cyanide.

### COMMON BEAN (*Phaseolus vulgaris* L.) +++

#### FABACEAE

#### Synonyms:

*Phaseolus nanus* L.; *P. vulgaris* var. *mexicanus* Freytag; fide (USN).

#### Notes:

Peru's answer, perhaps even antecedent to soy milk, may be what Egg (1999) terms “lagua de numia” or “lagua de ñuña” a very nutritious “bean milk” used as a substitute for mother's milk. The “ñuña” is a primitive bean type from the Andes. Egg (1999) notes that bean seeds, from 11,000 years ago, have been found in caves of Guitarrero (Ancash). American beans of this genus are clearly preferred by many Americans, native and introduced, to the introduced (originally) Chinese soybean and the (originally) fertile crescent/Mediterranean faba bean. When carried back to Europe as a result of the Columbian Exchange, they were quickly recognized to be more digestible than, e.g., the biblical fababean, *Vicia faba*, especially in areas of endemic favism, which often manifests as hemolytic anemia, sometimes fatal (VOD). The herbal PDR attributes the origin of the plant to India (it is Native American) (Fleming et al., 1998).

And one 2007 article alone added more than 20 compounds to my phytochemical database, just in the testa of the black bean. At least 6 of them were potent antioxidant flavonoids, and many of them antiproliferative against various cancer types (breast, colon, liver). Various bean phytochemicals, including phenolic compounds (flavonoids and tannins), phytic acid, triterpenes, and phytosterols, may underlie the anticancer activity (X17602653). And of course the beans contain many of the same estrogenic isoflavones that occur also in soy. Not only do we need third arm trials of black bean against chemopreventive pharmaceuticals and

placebo, we need to include the soy in the same trials. Black beans may be better than soy, and so much less un-American.

### Common Names:

Ahuihua (Sa.; EGG; SOU); Aifi (Garifuna; IED) Ajote (Mex.; AVP); Alorba (Sa.; EGG; SOU); Alubia (Sp.; EFS); Ama Poroto (Sa.; EGG; SOU); Ayacote (Mex.; AVP); Babri (Punjab; MPI; NAD); Bai Fan Dou (Pinyin); Bakla (Hindi; India; EFS; MPI; NAD); Barigalu (Tel.; MPI; WOI); Bean (Eng.; USN); Bendo Mash (Iran; EFS); Biik (Aguaruna; Huambisa; Sa.; EGG; SOU); Black Bean (Eng.; CR2; VOD); Buschbohne (Ger.; EFS); Buskbonne (Den.; EFS); Carota (Ven.; AVP); Carotas (Ven.; AVP); Chanca (Peru; Sp.; EGG; RAR); Chancha (Sp.; EGG); Chaucha (Ai. Sa.; Uru.; EGG; SOU); Choch (Sa.; Yanesha; EGG; RAR); Cholo (Ecu.; AVP); Chooch (Sa.; Yanesha; EGG); Chuvi (Sa.; EGG); Common Bean (Eng.; Scn.; AH2); Common White Bean (Eng.; EFS); Dwarf Bean (Eng.; EFS; NPM); Ejote (Sal.; AVP); Erbse (Ger.; AVP); Faginolo (It.; AVP); Fagiolo (It.; JLH); Fagiolo Nano (It.; EFS); Faguilo (It.; AVP); Fasein (Ger.; NAD); Fassoulia (Arab.; AVP); Fasulya (Tur.; EB54:155); Fasulye (Tur.; EFS); Feijao (Por.; AVP); Feijao Branco (Por.; AVP); Feijao Preto (Por.; AVP); Feijao Rayado (Por.; AVP); Feioeiro (Por.; EFS); Frejol (Peru; Sa.; EGG; SOU); Frejol Ahuihua (Sa.; EGG); French Bean (Eng.; MPI); Frijol (Peru; Sp.; EFS; EGG); Frijol Colorado (Sp.; AHL); Frijol de Castilla (Mex.; AVP); Frijol de Rienda (Sal.; AVP); Frijol Mono (Sal.; AVP); Frisol (Col.; AVP); Garden Bean (Eng.; VOD); Gartenbohne (Ger.; AVP; EFS); Green Bean (Eng.; Ocn.; AH2; RAR; VOD); Habichuela (Dor.; Sp.; AHL); Habichuela Blanca (Sp.; AHL); Habichuela Colorado (Sp.; AHL); Habichuelo Enana (Sp.; EFS); Haricot (Fr.; IHB; VOD); Haricot Nain (Fr.; EFS); Haricot Rouge (Fr.; AHL); Haricot Verte (Fr.; EFS); Humia (Sa.; EGG); Ingen Mame (Japan; TAN); Inua (Cuna; AVP); Judía (Sp.; EFS; EGG); Juedhuelas (Bol.; AVP); Kachang Bunchis (Dwi.; IHB); Kachang Pendek (Dwi.; IHB); Katjan Hijau (Malaya; EFS); Kidney Bean (Eng.; AH2; CR2); Kopuro (Sa.; EGG); Kumanda (Ai.; Chiriguano; Sa.; PMC); Lobia (Hindi; MPI); Lu Tau (China; EFS); Ma Sha (Tibet; TIB); Miika (Candoshi; Sa.; EGG; SOU); Mon Sran Gre'u (Tibet; TIB); Moonghi (India; EFS); Nambia (Sa.; EGG); Navy Bean (Eng.; RAR); Niika (Ai.; Sa.; SOU); Nudia (Sa.; EGG); Numia (Sa.; EGG); Ñuña Azul (Sa.; EGG); Ñuña Conejo (Sa.; EGG); Ñuña de los Andes (Sa.; EGG); Ñuña Huevo de Paloma (Sa.; EGG); Ñuña Mani (Sa.; EGG); Ñuña Parcollana (Sa.; EGG); Ñuña Pava (Sa.; EGG); Ñuñas (Sa.; EGG); Pakla (Tur.; EB54:155); Panamitos (Peru; AVP); Patachete (Mex.; AVP); Petite Feve (Fr.; EFS; NAD); Phanasi (Guj.; MPI; WOI); Pinto Bean (Eng.; AH2); Pois Beurre (Fr.; AHL); Pois Blanc (Fr.; AHL); Pois Commun (Fr.; AVP); Pois de Souche (Fr.; AHL); Pois Indien (Fr.; AHL); Pois la Maniere (Fr.; AHL); Pois Noir (Fr.; Haiti; AHL; AVP); Pois Nourrice (Fr.; AHL); Pois Rouge (Fr.; Haiti; AHL; AVP); Pois Souche (Fr.; AHL); Pois Tendre (Fr.; AHL); Poncha (Ven.; AVP); Porootayo (Ai.; Sa.; SOU); Porootyo (Ocaina; Sa.; SOU); Porotillo Purutu (Ai.; Sa.; EGG; SOU); Poroto (Sa.; EGG; RAR); Poroto de Puno (Sa.; EGG); Pronkboon (Dutch; EFS); Purutti (Aym.; PMC); Purutu (Que.; EGG; RAR); Pwa Nwa (Creole; Haiti; VOD); Pwa Wouj (Creole; Haiti; VOD); Rajama (Nepal; NPM); Rajmah (Hindi; MPI); Red Bean (Eng.; AVP); Red Kidney Bean (Eng.; AVP); Schminkbohnen (Ger.; AVP); Sem (Hindi; NAD); Short Bean (Eng.; IHB); Shrivanghevda (Mar.; MPI; NAD; WOI); Sinak (Ulwa; ULW); Snapbean (Eng.; AH2; RAR); Snijbohnen (Sur.; AVP); Spenciebohnen (Sur.; AVP); Ssu-Chi-Tou (China; TAN); Stamboom (Dutch; EFS); Stokboon (Dutch; EFS); Stringbean (Eng.; CR2; VOD); Tapiramo (Ven.; AVP); Taum Laag (Hmong; EB57:365); Taum Lag (Hmong; EB57:365); Tigelavare (Kan.; MPI); Tineco (Sal.; AVP); Tingalavare (Kan.; WOI); Ts'ai-Tou (China; TAN); Tsuru-Nashi-Ingen (Japan; TAN); Vainitas (Sa.; EGG; RAR); Vilaiyte (Hindi; NAD).

### Activities:

Alpha-Amylase-Inhibitor (1; X15533267; X16213488); Analgesic (f; EGG); Antiaggregant (1; FNF); Antiangiogenic (1; FNF); Antiatherogenic (1; X10347694); Anticancer (1; FNF); Anti-

depressant (1; FNF); Antidiabetic (1; DIA; PHR); Antileukemic (1; FNF); Antilymphomic (1; FNF); Antimelanomic (1; FNF); Antiobesity (1; X15533267); Antioxidant (f1; X15826058; X17602653); Antiproliferant (1; X17602653); Antiprosthetic (1; FNF); Antiradicular (f1; X15826058); Antitumor (f1; EGG; X17602653); Antiviral (1; MPI); Apoptotic (1; FNF); Bactericide (1; WBB); Bifidogenic (f; X15850967); Cardioprotective (1; FNF); Carminative (f; CRC; EFS); Chemopreventive (1; FNF; X17602653); Chitinolytic (1; X16213488); Cytotoxic (1; X17602653); Depurative (f; CRC; EFS); Diaphoretic (f; CRC); Diuretic (f12; EGG; KOM; PHR); Emmenagogue (f; CRC); Emollient (f; CRC; SKJ); Estrogenic (1; FNF; JAD); Febrifuge (f; CRC); Fungicide (1; CRC; DAA; X16026901); Hemagglutinant (1; X16026901); Hepatoprotective (1; FNF); Hypocholesterolemic (1; FNF; JAD; X8672408); Hypoglycemic (1; DAA; DIA; X15533267); Hypotensive (1; FNF); Hypouricemic (f; EGG); Lipolytic (1; FNF); Lipotropic (1; FNF); Mutagenic (f; MPI); NO-Genic (1; X15843143); Resolvent (f; CRC; EFS).

### Indications:

Acne (f; CRC); Albuminuria (f; CRC); Alcoholism (1; FNF); Anemia (1; FNF); Anorexia (1; FNF); Anuria (2; KOM); Arthrosis (f; EGG); Bacteria (1; WBB); Bladder Stones (2; PHR); BPH (1; FNF); Burns (f; CRC); Cancer (1; FNF); Cancer, blood (1; DAA; FNF); Cancer, breast (1; FNF; JLH; X17602653); Cancer, colon (1; JAF50:6975; X17602653); Cancer, liver (1; FNF; X17602653); Cancer, testicle (1; FNF; JLH); Cardiopathy (1; FNF; JAF50:6975); Colds (f; CRC; VOD); Cystosis (f; CRC; MAD; PHR); Depression (1; FNF); Dermatitis (f; FNF); Diabetes (1; CRC; DAA; DIA; FNF; JAF50:6975; MAD; PHR); Diarrhea (f; CRC); Dropsy (f; CRC; MAD); Dysentery (f; CRC); Dysmenorrhea (f; EGG); Dysuria (1; PHR); Eczema (f; CRC); Edema (f; FNF); Endometriosis (1; FNF; TGP); Enteralgia (1; FNF); Enterosis (f; FNF); ERT (1; FNF); Fibrosis (f; FNF); Flu (f; VOD); Fractures (f; EGG); Fungus (1; DAA; X16026901); Gastrosis (f; FNF); Glaucoma (1; FNF); Gout (f; EGG; MAD); Headache (f; CRC; VOD); Heart (f; CRC); Hematuria (f; MAD); Hepatosis (1; FNF); Hiccups (f; CRC); High Blood Pressure (1; FNF); High Cholesterol (1; FNF; JAD; X8672408; X10347694); Hot Flashes (1; FNF); Hypercholesterolemia (1; X10347694); Hyperlipoproteinemia (1; FNF); Hypertriglyceridemia (1; X10347694); Infection (1; PHR; WBB; X16026901); Itch (f; CRC); Kidney Stones (2; PHR); Leukemia (1; FNF); Lymphoma (1; FNF); Melanoma (1; FNF); Menopause (1; FNF; JAD); Mycosis (f; X16026901); Nephrosis (f; CRC; DAA; FNF; PHR); Neuroses (f; FNF); Obesity (1; FNF; FT71:S73; JAF50:6975; X15533267); Ophthalmia (f; VOD); Osteoporosis (1; FNF; JAD); Pain (f; EGG; JLH); Pericarditis (f; MAD); Pleurosis (f; MAD); Respirosis (f; VOD); Retinopathy (1; FNF); Rheumatism (f; CRC; DAD; EGG; MAD); Rickets (f; FNF); Sciatica (f; CRC; DAA); Scurvy (f; CRC); Sores (f; FNF; JLH); Steatosis (f; FNF); Stones (2; PHR); Syndrome-X (1; FNF; SYN); Tenesmus (f; CRC); Toxemia (f; FNF); Tuberculosis (f; FNF); Tumors (f; CRC; JLH); Ulcers (f; JLH); UTIs (2; PHR); Viruses (1; MPI) Warts (f; CRC); Water Retention (1; MAD).

### Dosages:

FNFF = !!! Green pods and seeds, green and ripe, widely eaten. Southerners pickle the green bean pods as dilly beans. Facciola (1998) says young leaves are consumed as a vegetable, sprouts eaten, sauteed flowers added to salsas, soups, and stews. Javans eat the young leaves as salads (EB54:155; EB57:365; FAC, TAN; WOI). ½ cup seed (100 g) as food (JAD); 5–15 g green pod/day (PHR).

- Gringoes (myself) recommend cooked beans and onion to prevent colon cancer, diabetes, and syndrome X (FNF).
- Haitians apply the leaf juice (or leaves to the head) for eye problems and headache (VOD).
- Haitians take the leaf juice or decoction for colds, flu, and other respiratory disorders (VOD).



- Peruvians suggest dry pod infusion as antirheumatic, diuretic, and hypouricemic (EGG).
- Peruvians suggest mashed beans to reduce pain and tumors (EGG).

**Downsides:**

Not covered (AHP). None known (KOM). The herbal PDR hints that poisonings due to overconsumption of too many raw greenbeans is not impossible, due to lectins, which are destroyed by cooking. Symptoms include diarrhea, gastroenterosis, and vomiting (Fleming et al., 1998). Of course, overconsumption of dry bean seeds can also lead to GI distress, like flatus and dyspepsia. As of July 2007, the FDA Poisonous Plant Database listed 173 titles alluding to toxicity of this species.

**Extracts:**

The herbal PDR says “Chromium salts present in the drug [greenbean] may cause an antidiabetic effect” (Fleming et al., 1998). Seeds of this species as black beans, brown beans, kidney beans, etc. may be as rich in the estrogenic isoflavone, genistein, as soybean. And the seeds are much lower in fat than soy seeds. And I say, rightly or wrongly, that the health benefits (or perils) of soy may very well carry over to kidney beans, etc., perhaps even better health benefits. So I give black beans the same scores I give soybeans, better for cholesterol, etc. since the black bean has a much better fat:protein ratio than the soybean.

## GOLDEN POLYPODY (*Phlebodium aureum* (L.) J. Sm.) ++

### POLYPODIACEAE

**Illustrations:**

p 496 (AUS)

**Synonyms:**

*Polypodium areolatum* Humb. & Bonpl ex Willd.; *P. aureum* L.; *P. decumanum* Willd.; *P. leucotomos* Poir.

**Notes:**

Hoshizaki and Moran (2001) note that this species is distinguished from other cultivated species by its sori arranged in 3–7, rather than 1–2 rows between the midrib and margin of the leaf segment. They describe it as a medium-to-large fern with moderately long-creeping rhizomes, easily cultivated and growing well under medium light in moist to moist-dry garden soil or well drained potting mix. (HAM). According to Moran, everyone now recognizes *Phlebodium* as the proper generic name (HAM). Its distinctness from *Polypodium* is supported by morphology and DNA studies. You can find botanical descriptions of *Phlebodium decumanum* and *Phlebodium pseudoaureum* by visiting the *Flora Mesoamericana* website maintained by the Missouri Botanical Garden. There is associated nomenclatural information available on the Gardens TROPICOS, also on-line. Taylor (2005) aggregates *P. aureum* and *P. decumanum*; USDA Nomenclature Database (USN) retains them as separate species.

**Common Names:**

Anapso (Trade; RAI); Avenca Dourado (Brazil; Por.; AUS; JTR; MPB); Bear's Paw Fern (Bel.; Eng.; AAB; HAM); Cabbage Palm Fern (Eng.; Fla.; AUS); Calaguala (Cuba; Hon.; Mex.; Pan.; Peru; Sp.; Spain; AUS; EFS; LOR; VAD); Callawalla (Bel.; AAB); Canawana (Bel.; AAB); Carraguala (Cuba; JTR); Cotochupa (Sa.; RAI); Golden Polypody (Eng.; Scn.; AH2; HAM; USN); Golden Serpent Fern (Bah.; Eng.; Fla.; AUS); Gold-Foot Fern (Eng.; USN); Guaririnha (Brazil; MPB); Hare's Foot Fern (Eng.; Ocn.; AH2; HAM; USN); Huayhuashi-Shupa (Peru; Sp.; LOR; RAI); Istima:ha Imamâ (Creek; AUS); Mano de León (Mex.;

Totonac; AUS); Mirane (Sa.; RAI); Ni (Chinantec; Mex.; AUS); Ni Za (Chinantec; Mex.; AUS); Polipodio (Sp.; USN); Polypody (Eng.; USN); Rabbit's Foot Fern (Eng.; HAM; USN); Samambaia (Brazil; RAI); Serpent Fern (Bah.; Eng.; Fla.; AUS; HAM); Tallawalla (Bel.; AAB); Temakaje (Sa.; RAI); Yaatchayhen Taapente (Mikasuki; AUS); Yá:tcáyhima:hî (Mikasuki; AUS); Za (Chinantec; Mex.; AUS).

### Activities:

Alterative (f; MBC); Anabolic (1; MPG); Analgesic (f; MBC); Anthelmintic (f; MBC); Antiaggregant (1; X8066104); Antiaging (1; RAI); Antielastase (1; X9434602); Antiinflammatory (f1; MBC; RAI); Antileukotriene (1; RAI; X8066104); Antioxidant (1; RAI); AntiPAF (1; RAI; X8066104); Antiradicular (1; RAI); Antirejection (1; HAD); Antirheumatic (f; MBC); Antispasmodic (f; MBC; VAD); Antitumor (1; RAI); Antitussive (1; MPG; RAI); Antiulcer (f; AAB); AntiUV (1; RAI); Antivenereal (f; MBC); Antiviral (1; AUS; MPG); Astringent (f; MBC); Cerebroprotective (1; RAI); Corticosteroidal (1; VAD); Demulcent (f; MBC); Depurative (f; MBC; RAI); Diaphoretic (f; DAW; MBC; RAI); Diuretic (f1; MBC; RAI); Emmenagogue (f; MBC); Expectorant (f1; MBC; RAI); Febrifuge (f; DAV; MBC); Hemostat (f; JFM; MBC); Hypotensive (1; RAI); IL-6-Inhibitor (1; X12890427); Immunomodulator (f1; MBC; RAI); Laxative (f; MBC); Lymphocytogenic (1; VAD); Neuroprotective (1; PHR13:566); Pectoral (f; MBC); Purgative (f; MBC); Sedative (f; MBC); Sunscreen (1; RAI); TNF-Inhibitor (1; X12890427); Tranquilizer (1; VAD).

### Indications:

Abscesses (f; RAI); Alzheimer's (12; RAI; PHR13:566); Anemia (f; MPG); Anorexia (f; MBC); Arthrosis (1; MPG; RAI); Asthma (f; AUS; JFM; MBC); Bleeding (f; MBC); Boils (f; RAI); Bronchosis (f; MBC; RAI); Bruises (f; AUS; MBC); Cachexia (f; RAI); Calculus (f; MBC); Cancer (f; JLH; MBC); Cancer, skin (f; MPG); Cancer, stomach (f; MPG); Cardiopathy (f; AUS; JFM); Catarrh (f; JFM); Cerebrosis (f12; MPG; RAI); Colds (f; RAI); Colic (f; AUS); Constipation (f; AUS); Coughs (f; AUS; MPB; SAR; UPH); Crohn's (1; MPG); Dementia (f12; RAI); Dermatoses (f12; MBC; RAI); Diabetes (1; MBC; MPG); Diarrhea (f; MBC); Dropsy (f; MBC); Dysmenorrhea (f; MPG); Dyspepsia (f; AAB); Eczema (1; MBC; MPG); Fever (f; DAV; EB25:239; MBC); Flu (f; RAI); Fractures (f; MBC); Gastrosis (f; AAB; MBC); Gout (f; MBC; RAI); Hepatosis (1; MPG); High Blood Pressure (f; AAB; AUS; MPG); Hoarseness (f; JFM); Infection (1; MPG); Lactose-Intolerance (1; VAD); Leukorrhea (f; MPG); MS (1; MPG); Nephrosis (f; AUS; DAV; MBC); Neurosis (1; PHR13:566); Oliguria (f; AUS); Ostealgia (f; MBC); Osteoarthritis (1; VAD); Pain (f; AAB; MBC; MPG; RAI); Pancreatosis (f; DAV); Pertussis (f; DAV; EBS; MBC); Psoriasis (f12; MBC; MPG; RAI); Pulmonosis (f; MPG); Respirosis (f; JFM; RAI); Rheumatism (f1; MBC; MPG; RAI); Snake Bite (f; MBC); Sores (f; AAB; JTR; MBC); Sprains (f; JTR); Stomachache (f; JTR; MBC; MPG); Stomatosis (1; MPG); Stones (f; MBC); Sunburn (f; RAI); Syphilis (f; MBC); Tendonosis (f; RAI); Tumors (1; RAI); Ulcers (f; AAB); UTIs (f; RAI); Vaginosis (f; MPG); VD (f; DAW; MBC); Viruses (1; AUS; MPG); Vitiligo (f12; MBC; PHR13:566; RAI); Worms (f; AUS); Wounds (f; AUS).

### Dosages:

FNFF = ??? ½–1 cup leaf a/o rhizome tea 1–3×/day (RAI); 1–2 g leaf or rhizome capsule/tablet 2×/day (RAI); 2–3 ml tincture 2×/day (RAI).

- Amazonians use for cancer, cough, detoxication, fever, immune disorders, nephrosis, pancreatosis, pertussis, psoriasis, and rheumatism (RAI).
- Brazilians use for blood disorders, bronchoses, cold, cough, dermatosis, flu, gout, psoriasis, respirosis, and rheumatism (RAI).
- Cubans use for arthroses, asthma, cardiopathy, colic, external sores, falls, hips, high blood pressure, rheumatism, sprains, stomachache, worms, wrists, and wounds (AUS; JTR; TRA).

- Hondurans take for arthritis, cancer, dermatosis, nephrosis, pain, psoriasis, rheumatism, tendonosis, and ulcers (MPG; RAI).
- Mexican Totonacs use for coughs, internal bruises, and nephrosis (AUS).
- Peruvians take for abscesses, boils, cough, dermatoses, fever, nephrosis, pertussis, psoriasis, sores, and UTIs (DAV; EGG; RAI).
- Seminoles use for recalcitrant chronic sicknesses (AUS).
- Venezuelans take for constipation and VD (RAI).

**Downsides:**

Can irritate gastric mucosa. Contraindicated in gastritis, gastroduodenal ulcers, diabetes, and hyperglycemia. Do not take concurrently with cardiotonics (VAD). No cases of human toxicity reported. As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**Extracts:**

Ethanollic rhizome extract active against vesicular stomatitis virus. Aqueous and ethanollic extracts non-toxic at 500 mg/kg in the fish *Mollinesia*. Like cyclosporin, extracts may slow rejection of implants. Methanol extracts dose-dependently inhibited the production of PAF with IC<sub>50</sub> = 0.2 mg/ml, comparable with diflunisal (IC<sub>50</sub> = 0.01 mg/ml, 50 μm). Extracts also showed dose-dependent inhibition of exocytosis, IC<sub>50</sub> = 0.1 mg/ml, cf. ginkgolide BN 52021 with IC<sub>50</sub> = 0.034 mg/ml. Calaguala also inhibited formation of leukotriene-B<sub>4</sub>, IC<sub>50</sub> = 130 μg/ml, cf. 68 μg/ml for sulfasalazine. The inhibition was caused by PUFAs' arachidonic-, linoleic-, and linolenic-acids, dose dependently, supporting the suggestions that PUFAs affect the immune system, leading to increased interest in dietary manipulation of chronic diseases like psoriasis (Bohlin, 1995; HAD).

**SUELDA CON SUELDA (*Phoradendron crassifolium* (Pohl ex DC.) Eichler) +  
VISCACEAE**



**Illustrations:**

p 181 (closely related *P. piperoides*) (DAV)

**Notes:**

Knowing that this is a taxonomically tough group, I am taking a generic or suprageneric approach. I believe that the common name "suelda con suelda," is supergeneric, rather familial for the whole parasitic family. Lacaze and Alexiades (1995) data apply to *Psittacanthus*

*corynocephalus* (MD2). Mors et al. (2000) data apply only to *P. crassicaulis*. Duke and Vasquez (1994), Egg (1999), Rutter (1990), and Schultes and Raffauf (1990) data apply mostly to *P. crassifolium* but other species of *Phoradendron* as well. De Lucca and Zalles (1992) data apply to *P. platycaulon* and *P. quadrangulare*. Morton (1977, 1981) data apply to *P. piperoides*, *P. trinerve*, and *P. vermicosum*.

### Common Names:

Anteojos (Ma.; JFM); Beguefide (Huitoto; Peru; DAV; RAR); Bird Vine (Ma.; JFM); Bohon (Belize; BNA); Caballera (Ma.; JFM); Caballero (Yucatan; JFM); Cepa Caballera (Ma.; JFM); Chunku Chunku (Aym.; Bol.; DLZ); Erva de Passarinho (Brazil; MPB); Erva de Passarinho de Folha Grande (Brazil; MPB); Gad Bush (Bel.; BNA); God Almighty (Bel.; Ma.; BNA; JFM); Herva do Passaro (Ma.; JFM); Ingerto (Ma.; JFM); Isipope (Bol.; Chiriguano; DLZ); Liga (Ma.; JFM); Lunku Lunku (Aym.; Bol.; DLZ); Mata Palo (Ma.; JFM); Mistletoe (Eng.; DAV; JFM); Pajar (Peru; RAR); Palo Caballero (Ma.; JFM); Parajito (Col.; Sp.; SAR); Pishco Isma (Peru; DAV); Pisho Isma (Peru; DAV); Scorn de Earth (Bel.; BNA); Shanen Bana (Shipibo/Conibo; MD2); Shaniwandamestongó (Amahuaca; MD2); Suelda con Suelda (Peru; Mex.; Sp.; DAV; DLZ; JFM; RAR); Sueldo con Sueldo (Bel.; BNA); XKeu (Yucatan; JFM); Yaak XKeu (Yucatan; JFM).

### Activities:

Antiedemic (f; MPB); Antiinflammatory (f; DAV; EGG); Antispasmodic (f; JFM); Contraceptive (f; MD2); Cytoprotective (1; X10837995); Hemostat (f; MD2).

### Indications:

Anemia (f; EGG; SAR); Apoplexy (f; DLZ); Bleeding (f; MD2); Childbirth (f; DAV; EGG; JFM); Colds (f; JFM); Cramps (f; JFM); Cut (f; EGG); Dementia (f; JFM); Dislocation (f; DAV; EGG; MD2); Edema (f; MPB); Enterosis (f; MD2); Epilepsy (f; JFM); Fracture (f; DAV; DLZ; EGG); Gas (f; JFM); Hemorrhage (f; MD2); Inflammation (f; DAV; EGG); Marasmus (f; JFM); Neurosis (f; JFM); Paralysis (f; JFM); Pertussis (f; JFM); Spasms (f; JFM); Swelling (f; MPB); Ulcers (1; X10837995); Wounds (f; DAV; MD2; SAR).

### Dosages:

FNFF = X

- Bahamans give leaf decoction (*P. trinervium*) before, during, and after childbirth (JFM).
- Bolivians suggest leaf tea (*P. piperoides*) for apoplexy (DLZ).
- Brazilians use in treating swollen legs (MPB).
- Cubans use the plant (*P. piperoides*) as antispasmodic in gas and pertussis (JFM).
- Dominicans give leaf tea (*P. trinervium*) for colds (JFM).
- Madre de Dios natives plaster heated leaves (*Psittacanthus corynocephalus*) on blows and dislocations (MD2).
- Madre de Dios natives take leaf macerate (*Psittacanthus corynocephalus*) in water or pisco for internal hemorrhages (MD2).
- Peruvians apply leaves (*P. huallagense*) as topical antiinflammatory (EGG).
- Peruvians apply mashed leaves of plants parasitizing lime trees, on dislocations, and wounds (DAV).
- Peruvians give birthing mothers tea made from leaves with buds of *Psidium* and bark of *Spondias*, 2 cups/day, a.m. and p.m., to speed the mothers' puerperal healing (DAV).
- Peruvians use leaf tea (*Psittacanthus corynocephalus*) as contraceptive (MD2).
- South American rubber workers drink leaf tea (*P. piperoides*) for anemia (SAR).
- Tikuna poultice crushed leaves onto wounds (SAR).
- Trinidad natives bathe children with marasmus in plant decoction (*P. piperoides*) (JFM).
- Yucatanese use *P. vermicosum* in childbirth, dementia, epilepsy, nervous disorders, and paralysis (JFM).

**Downsides:**

Various authors describe the whole parasitic family Loranthaceae as poisonous on their own, and taking up compounds from their host plants (DAV; DLZ). Amerindians fear the plant can bring on bad luck (SAR).

**Extracts:**

Aqueous extracts exhibit cytoprotective activity comparable to atropine (X10837995)

**MEXICAN LIPPIA (*Phyla dulcis* (Trevir.) Moldenke) ++****VERBENACEAE****Synonyms:**

*Lippia dulcis* Trevir.; *L. mexicana* G. L. Nesom; *L. scaberrima* Sond.; *Phyla scaberrima* (Juss.) Moldenke; *Zapania scaberrima* Juss.; fide (POR; USN).

**Notes:**

Writing this one up placed me in a nomenclatorial quandary; my first four sources all used different names for this species. McGuffin et al. (2000) and the USDA Nomenclature Database even used different scientific names, in which case I'll side with the USDA (AH2; USN). Nor do I like the Herbs of Commerce (AH2) standardized common name, though I have accepted it here, rather than the name(s) I prefer, my preferred names alluding correctly to its sweet properties, rather than a rigid common name, alluding incorrectly to a temporarily abandoned generic scientific name, now out of vogue. I grow this "Aztec sweet herb" next to my "sweet herb of Paraguay" (scn = Stevia), in the diabetes plot of the *Green Farmacy Garden*. I mix a few leaves of both in my solar herbal teas, thereby avoiding the sugar (I don't need sugar with herb teas as long as I have these sweet herbs).

**Common Names:**

Aztec Sweet Herb (Eng.; FAC; POR; USN); Aztekisches Süßkraut (Ger.; POR); Beukessboss (S. Afr.; POR); Beukessbossie (Afrikaans; POR); Correchoncho (Sp.; POR); Corron Chocho (Ma.; JFM); Hierba Buena (Ma.; JFM); Hierba Dulce (Guat.; Mex.; Pan.; Sp.; AH2; MPG; POR; USN); Honeyherb (Eng.; CR2; POR; USN); Huele de Noche (Mex.; AVP); Lippia (Eng.; Fr.; Ger.; EFS); Lippienkraut (Ger.; EFS); Menta Dulce (Peru; Sp.; POR); Mexican Lippia (Eng.; Scn.; AH2; POR; USN); Mexican Sweetleaf (Eng.; POR); Minzverbene (Ger.; POR); Mosukudu (Afr.; POR); Orases (Bel.; BNA); Ora Sos (Bel.; BNA); Oro Azul (Sp.; POR); Orosul (Ma.; Sp.; JFM; POR); Orozul (Guat.; Sp.; POR); Orozús (Sp.; POR); Orozuz (Cr.; Guat.; Sp.; AVP; POR; USN); Orozuz Cimarrona (Ma.; JFM); Orozuz de la Tierra (Sp.; POR); Orozuz del Pais (Ma.; Sp.; JFM; POR); Oruzuz (Cuba; Guat.; Sp.; POR; USN); Regaliz (Sp.; POR); Rough Fogfruit (Eng.; Ocn.; AH2; POR); Salvia Santa (Ma.; Pan.; Sp.; JFM; POR); Sweetleaf (Eng.; POR); Sweet Lippia (Eng.; FAC; POR); Xtuhuexiu (Ma.; JFM); Yerbabuena (Sp.; POR); Yerba Dulce (Sp.; EFS; POR; USN).

**Activities:**

Abortifacient (f; MPG); Antiproliferant (1; X12132670); Antispasmodic (f; MPG); Antitussive (f; JFM; MPG); Bactericide (1; MPG); Demulcent (f; EFS; JFM); Diuretic (1; HH2; JFM); Emmenagogue (f; HH2); Emollient (f; MPG); Expectorant (f12; AAB; EFS; JFM; MPG); Gram(+)-icide (1; MPG); Gram(-)-icide (1; MPG); Orexigenic (f; MPG); Pectoral (f; MPG); Sedative (f; EFS; JFM); Stimulant (f; JFM; MPG); Stomachic (f; JFM); Sudorific (f; MPG); Tonic (f; JFM; MPG).

**Indications:**

Anorexia (f; MPG); Asthma (f; EFS; JFM; MAX); Bacteria (f1; MPG); Bronchosis (f12; AAB; EFS; HH2); Cancer, stomach (1; X12132670); Cancer, uterus (1; X12132670); Carcinoma (1; X12132670); Catarrh (f1; HH2; JFM; MPG); Colds (f; JFM); Colic (f; JFM); Congestion

(f12; AAB; EFS; JFM; MAX; MPG); Constipation (f; MPG); Coughs (f1; AAB; EFS; JFM; MPG); Diarrhea (f; MPG); Dysmenorrhea (f; MPG); Dyspnea (f; MAX); Edema (f; MPG); Enterobacteria (1; X8479202); Enterosis (f1; JFM; MPG; X8479202); Fever (f; MPG); Flu (f; MPG); Gastrosis (f1; JFM; MPG; X12132670; X8479202); Infection (f1; MPG); Insomnia (f; EFS; JFM); Malaria (f; MPG); Melanoma (1; X12132670); Nausea (f; MPG); Nephrosis (f; MPG); Parasites (f; MPG); Pertussis (f; MPG); Respirosis (f; HH2; MPG); Spasms (f; MPG); *Staphylococcus* (1; MPG); Stomachache (f; MPG); *Streptococcus* (1; MPG); Toothache (f; AAB); Uterosis (1; X12132670); Vomiting (f; MPG).

### Dosages:

FNFF = ! Aromatic leaves eaten as salad or used as a spice or sweetener. Licorice-flavored root chewed in Central America (FAC; JFM). 100 g herb in decoction (JFM).

- Belizeans chew the flower for toothache (AAB).
- Belizeans decoct a handful fresh herb and 1 cup sugar in 1 qt water for hacking cough (AAB).
- Cubans take the 100 g leaf decoction as a stomach tonic, and for asthma and suffocation (JFM).
- Guatemalans take leaf decoction for asthma, bronchitis, cold, constipation, cough, diarrhea, dysmenorrhea, enteritis, fever, flu, gastritis, parasites, stomachache, and vomiting (MPG).
- Mexicans decoct 100 g/l for asthma, bronchosis, catarrh, colic, and cough (JFM).
- Mexicans use for amenorrhea, anorexia, bronchitis, and colic, douching with the tea for emmenagogue (MPG).
- Panamanians use the plant for respiratory disorders (MPG).
- Puerto Ricans consider the tea demulcent, expectorant, and sedative, using for bronchosis, colic, cough, and gastroenterosis (JFM).

### Downsides:

Large doses of pure camphor (LD50 = 50 mg/kg) can dangerously cause abortion. As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

### Extracts:

Tinctures carried by Parke-Davis (back around 1890). Synthetic hernandulcin shows no mutagenic activity (HH2). At doses as high as 2,000 mg/kg, oral doses of d,l-hernandulcin are not lethal to mice (CR2).

## PHYLLANTHUS (*Phyllanthus niruri* L.) + EUPHORBIACEAE



### Illustrations:

pl 861 (KAB)

### Notes:

*P. amarus*, *P. debilis*, *P. fraternus* and *P. niruri* are confused in the field and in the literature and in this account too (true confession). The Fleming et al. (1998) entries were under “black catnip” as *P. amarus*, with the warning “may be confused with *Phyllanthus urinaria*, *P. niruri*, *P. debilis*, and *P. fraternus* (PH2). Kapoor (1990) and MPI data were applied to *P.*

*fraternus*. Kirtikar and Basu data (as KAB) to *P. niruri* L. Gupta (1995) lumped the species *amarus*, *carolinianus*, *debilis*, *humilis*, and *niruri*. Taylor (2005) aggregated activities for *P. amarus*, *P. niuriri*, and *P. sellowianus*. Morton treats *P. lathyroides* as synonym of *P. niruri* (JFM). Blaschek et al. (1998) recognized *P. amarus* and *P. niruri* among the similar species. McGuffin et al. (2000) give the name *Phyllanthus* as the standardized common name for *P. fraternus*, *P. niruri*, and *P. urinaria*, and maintain *P. amarus* under the scn *Phyllanthus amarus* (ocn. = “carry-me-seed”). Manandhar (2002) subsumes *P. niruri* under *P. amarus*. Austin (2004) chimes in that “The plant of choice in most, if not all, of the Americas is now *P. niruri*.” Yaniv and Bachrach (2005) try to straighten us out. These several similar species are aggregated hopelessly in the data below. DNA sequencing has resolved “the long lasting insecurity about the correct taxonomic assignment of *Phyllanthus amarus* and *P. niruri*.” On the basis of sequence analysis obtained from two independent markers of *P. amarus*, *P. niruri*, and 8 taxonomically related species, it was possible to characterize *P. amarus* by species-specific mutations ... “*P. fraternis* and *P. abnormis* ... are related most closely to *P. amarus*... *P. niruri* is not genetically linked with *P. amarus*.” ... *P. debilis*, *P. tenellus* and *P. urinaria* are clearly separate species (YAB).

I first learned this Amazonian plant far from the Amazon, in Belize and some of the West Indian islands where its English name was “seed on the leaf.” There, matter of fact everywhere I have seen it, it has acquired some very positive folklore. Famed ethnobotanist R. E. Schultes says in his *The Healing Forest* (Schultes and Raffauf, 1990), as do all our Explorama guides and ACEER workers, that the plant is called “chanca pedras,” which means “stone-breaker.” The guides here say that it helps gravel and kidney stones, drunk as a tea, until you feel as if the stones have passed. Famous explorer Nicole Maxwell had picked that up, long before I got to Amazonian Peru, just when Peter Jenson and Margarita Smith were launching what is now the famous Explorama Camp, more than 30 years ago. Nicole noted then that the “stone-breaker” is quite effective in eliminating kidney stones and gallstones.

Still, I like what naturopathic physician Leslie Taylor (2005) says: “It is yet another perfect example that Mother Nature is infinitely a better chemist; the natural herb [whichever species, JAD] continues to work better than any other man-made chemically altered (and patentable) extracts.” An Ayurvedically inclined German physician correspondent heard my taxonomic lamentations and offered the following, returning to Germany from India, “Hello Dr. Duke, back from India I remember your discussion on *Phyllanthus niruri* and *amarus*. It became very clear that they are not synonyms. *Phyllanthus amarus* has much more bitter substances and is for that reason more effective in treatment of liver and gall diseases.” And Swerdlow (2000), on the last page of this *National Geographic* issue, was kind enough to call me one of the world’s leaders in the quest for new medicines from old plants. And he was kind enough to mention that I’m the author of *The Green Pharmacy* and *Herbs of the Bible: 2000 Years of Plant Medicine*. More important, he described medicine Nobel Prize winner Baruch Blumberg’s intense work on infectious viral diseases. Hoping to treat people who had already contracted hepatitis B, he studied *Phyllanthus amarus*, an Asian species used to treat jaundice, and found chemicals therein which disrupted the development of the virus. He then concluded with my comment that chicoric acid, a compound in the weed chicory, shows promise at disrupting the AIDS virus (Swerdlow, 2000).

### Common Names:

Adhyana (Sanskrit [1 of ~36]; KAB); Arranca Pedras (Por.; AVP; RAI); Arrebenta Pedras (Brazil; Por.; AVP; MPB); Azulejo (Cuba; AVP); Bahupatri (Sanskrit; ADP); Barbascao (Ven.; AVP); Bhonya Anmali (Guj.; ADP); Bhui Amala (Nepal; NPM); Bhuiamla (Ben.; Urdu; KAP); Bhuiola (Oriya; KAB); Bhuiavala (Mar.; KAB); Bhuianvalah (Dec.; KAB); Bhumiamla (Yunani.; KAP); Bhumyamalaki (Nepal; Sanskrit; ADP; AH2; KAP); Bhuyi Avla (Hindi; KAP); Carillo (Nic.; AVP); Cane Peas (Eng.; RAI); Cane Senna (Eng.; RAI);

Carry-Me-Seed (Eng.; RAI); Chamber Bitter (Jam.; JFM); Chanca Piedra (Ecu.; Peru; Sp.; BEJ; LOR; MDD); Chhotaki Dahigola (Tharu; NPM); Ciurelo (Mex.; AVP); Creole Senna (Eng.; RAI); De Dou (Haiti; AHL); Derriere Dos (Haiti; AVP); Des Dos (Haiti; AHL); En Bas Feuilles (Guad.; Mart.; AVP); En Bas Feuilles Blanc (Guad.; Mart.; AVP); Erva Pombinha (Brazil; Por.; AUS; AVP); Feuilles la Fievre (Haiti; AHL); Filanto Urinario (Sp.; AVP); Filantro Urinario (Ma.; JFM); Fly Roost (Eng.; NPM); Gabellon (Col.; AVP); Gale of Wind (Fla.; Usa.; AUS; AVP); Gale-Wind Grass (Eng.; RAI); Garbanzo (Col.; AVP); Graine en Bas Feuille (Creole; Guy.; GMJ); Graines en Bas (Guad.; Mart.; AVP); Graines Sur Dos (Haiti; AVP); Guinda (Sal.; AVP); Herbe du Chagrin (Fr.; KAB); Hierba Pombo (Brazil; MPG); Hurricane Weed (Eng.; RAI); Jangli Amla (Hindi; KAP); Jaramla (Hindi; KAB); Jobitillo (Pan.; AVP); Kaimadgene (Palikur; GMJ); Kidachimikanso (Japan; KAP); Kilanelli (Tam.; KAB); Kiranelligida (Kan.; KAB); Kizharelli (Tam.; KAP); Kizhkkayinelli (Mal.; KAB); Kunaparu (Guiana; AVP); Lavandero (Ven.; AVP); Lenteja (Arg.; AVP); Lloron (Cuba; AVP); Mankatowe (Shipibo/Conibo; MD2); Mala (Sanskrit; KAB); Malcoc (Arg.; AVP); Malva Pedra (Brazil; MPB); Mehukaetnipussemnak (Palikur; GMJ); Nelausirika (Tel.; KAB); Niruri (Eng.; Fla.; Fr.; Ocn.; Sin.; AH2; AUS; KAB; KAP); Panatela (Mex.; AVP); Para Paray Mi (Par.; AVP); Perico (Dor.; AVP); Perla (Col.; AVP); Peronillo del Pasto (Sp.; AVP); Petit Tamarin Blanc (Fr.; AVP); Phyllantee Diuretique (St. Bart.; AVP); Phyllanthus (Eng.; Scn.; AH2; CR2); Piedra con Piedra (Peru; SOU); Pimienta (Sal.; AVP); Pimientilla (Sal.; AVP); Pittawaku (Sin.; KAB; KAP); Quebra Pedra (Por.; AVP); Quinilla del Tahuampa (Peru; AVP); Quinine Creole (Fr. Guy.; AVP); Quinine Pays (Haiti; AVP); Quinine Weed (Eng.; RAI); Quininito (Dor.; AHL); Quinino Criollo (Dor.; AVP); Quinino del Pobre (Pr.; Sp.; AVP); Quinquina du Pays (Haiti; AHL); Rockbush (Jam.; AVP); Sacha Foster (Peru; Sp.; LOR; MDD); Santa Maria (Ma.; JFM); Sarandi Blanco (Uru.; AVP); Seaside Laurel (Jam.; AVP); Seed on the Leaf (Wi.; JAD); Semilla en las Hojas (Ma.; JFM); Snap Plant (Jam.; AVP); Sotlugi Kshanate (Piro; RAR); Stonebreaker (Eng.; DAV); Sulfate Pays (Haiti; AVP); Ta Ma La (Tibet; KAP); Tamalaki (Sanskrit; OFF); Viernes Santo (Col.; Pr.; AVP); Yaquillo (Pr.; AVP); Yerba de la Niña (Cuba; AUS; AVP); Yerba de Quinino (Sp.; AVP); Ye Xia Zhu (Pin.; AH2); Yiwayi Sili (Wayāpi; GMJ); Yoloba (Sudan; AVP); Zhen Zhu Cao (Pin.; AH2).

### Activities:

Abortifacient (f; RAI); Aldose-Reductase-Inhibitor (1; MPG; RAI; 60P); Amebicide (1; ZUL); Analgesic (f1; DAV; DAW; MBC; RAI); Anthelmintic (1; ZUL); Antialcoholic (1; KEB); Antibabesial (1; X15844943); Anticancer (1; KAB; PHM9:26); Antifertility (1; RAI); Antigenotoxic (1; PHM9:26); Antihepatomic (1; KEB); Antihepatotoxic (1; DAV; TRA); Antihyperuricemic (1; X16953466); Antiinflammatory (f1; RAI); Antileukemic (1; KAB); Antimutagenic (1; PHM9:26; RAI); Antioxidant (1; X16718736); Antiplasmodial (1; X15844943); Antiseptic (1; MPI; PH2; WOI); Antispasmodic (1; DAV; KAB; MPI; RAI; TRA); Antiulcer (f1; JFM; RAI); Antiviral (1; KEB; PH2; RAI; SKY; TRA); Aperitive (f; DAV; DAW); Astringent (f; KAB; SKJ); Bactericide (1; HH2; RAI; TRA; WOI; ZUL); Bitter (1; KAB; MPI; PH2); Carminative (f; DAV; DAW; RAI); Chemopreventive (f1; RAI); Cholagogue (f; GMJ); Contraceptive (1; PR15:265); Deobstruent (f; ADP; MPB; RAI; SKJ); Depurative (f; JFM); Diaphoretic (f; MPB); Digestive (f; DAV; DAW; RAI); Diuretic (f1; DAW; HNB; JFM; KAB; SKJ; TRA; WOI); DNA-Polymerase-Inhibitor (1; SKY); Emetic (f; MPG); Emmenagogue (f; DAV; DAW; NPM); Febrifuge (1; DAV; MPI; RAI; SKJ; TRA); Fungicide (1; ZUL); Gastroprotective (1; RAI); Hepatoprotective (f1; KAB; KEB; MBC; RAI; X16718736); HIV-RT-Inhibitor (1; KEB); Hypocholesterolemic (1; MPG; RAI); Hypoglycemic (= >Tolbutamide) (1; DAV; KAB; KEB; MPI; RAI; TRA); Hypotensive (1; MBC; RAI; X8786163); Hypotriglyceridemic (1; RAI); Hypouricemic (f1; JFM; X16953466); Immunostimulant (1; X16252911); Lactagogue (f; ADP; KAP; WOI); Laxative (f1; DAV; DAW; KAB; RAI); Litholytic (f1; DAV; RAI; X16896689); Myorelaxant (1; RAI); Natriuretic (1; MPB; RAI); Piscicide (1; JFM);



WOI); Protein-Kinase-Inhibitor (1; HH2); Protisticide (1; ZUL); Radioprotective (1; RAI); Refrigerant (f; KAB); RT-Inhibitor (1; RAI); Sedative (f; 60P); Stomachic (f; DAW; SKJ); Tonic (f; DAV; DAW; KAB); Uricosuric (1; MBC); Uterorelaxant (1; RAI); Vasorelaxant (1; X16394535); Vermifuge (f; DAV; DAW; RAI); Vulnerary (f; KAB).

### Indications:

Acne (f; JFM; NPM); Alopecia (f; SAR); Amebiasis (1; ZUL); Amenorrhea (f; NPM; RAI; 60P); Ascites (f; PH2); Bacteria (1; TRA; WOI); Bilioussness (f; JFM); Blackhead (f; JFM); Bleeding (f; MPG); Blennorrhagia (f; DAV; DAW; KAB); Bruises (f; MPG); Calculus (f1; JFM; MD2; X16896689); Cancer (1; JLH; KAB; MPI); Cancer, abdomen (f; JLH); Cancer, colon (f; JLH); Cancer, liver (f; RAI); Cholecocystosis (f; RAI); Colic (f; ADP; DAV; DAW; JFM; PH2; WOI); Colitis (f; RAI); Conjunctivosis (f; HH3); Constipation (f; KAB; KAP; PH2; RAI); Coughs (f; MD2); Cramps (1; MPI; PH2); Cystosis (f; RAI); Debility (f; HH3); Dermatitis (f; JFM; KAP); Diabetes (f; DAV; DAW; JFM; KAB; KEB; MPI; PH2); Diarrhea (f; PH2; WOI); Dropsy (f; DAV; DAW; MPI; SKJ); Dysentery (f; DAV; DAW; MPI; PH2; SKJ); Dyslactea (f; ADP); Dyspepsia (f; DAW; MPI; WOI); Dysuria (f; JFM; KAP); Edema (f; JFM; KAP; MPI; SKJ); Enterosis (f; AHL; JFM; JLH); *Escherichia* (1; HH3); Fever (f; DAV; DAW; HHB; PH2); Flu (f; DAV; DAW; RAI); Fungus (f1; KAB; MPI); Gallstones (f1; HH3; NIC; X16896689); Gangrene (f; MPG); Gas (f; DAV; RAI); Gastrosis (f; HHB; JFM; KAB; PH2); Gonorrhoea (f; DAW; HH3; KAB; MPI; SKJ); Gout (f1; JFM; MBC; X16953466); Gravel (f; JFM; 60P); Hepatitis-B (= Interferon) (12; RAI); Hepatosis (f12; KAB; KEB; MD2; MPB; MPI; SKY; X16718736); Herpes (1; HH3); High Blood Pressure (1; MBC; RAI; X16394535; X8786163); High Cholesterol (1; MPG; RAI; 60P); HIV (1; MBC; RAI); Hyperuricemia (f; JFM); Infection (f1; KAB; MPG; MPI; PH2); Infertility (f; PH2); Itch (f; DAV; DAW; KAP); Jaundice (f12; DAW; DEP; HHB; HH3; KEB; MPI; RAI; SKY); Kidney Stones (f1; NIC; RAI; X16896689); Leukemia (1; KAB; MPI); Leukorrhoea (f; ADP; JFM); Malaria (f1; DAV; DAW; DEP; KAB; HH3; MD2; PH2; RAI); Menorrhagia (f; KAP; MPI); *Micrococcus* (1; RAI); Mycosis (f1; KAB; MPI); Nephrosis (f; DAV; JFM; MBC; MD2; RAI; SAR); Oliguria (f1; RAI); Ophthalmia (f; KAP; MPI; PH2; WOI); Ovary (f; JFM); Pain (f1; AHL; MBC; RAI); Parasites (1; ZUL); Pasteurella (1; RAI); Prolapse (f; JFM); Prostatosis (f; DAV; RAI); Pulmonosis (f; MPG; 60P); Ringworm (f1; KAB; ZUL); Scabies (1; DEP; KAB; PH2; ZUL); Snake Bite (f; HH2; HH3); Sores (f; DEP; MPI; PH2; WOI); Spasms (f; RAI); Splenosis (f; KAB); *Staphylococcus* (1; HH3; RAI; 60P); Stomachache (f; BEJ; DAV; DAW; KAB; RAI); Stones (f1; HH3; X16896689); Swelling (f; KAB; MPI; SKJ); Tachycardia (f; PH2); Tenesmus (f; DAV; DAW); Tuberculosis (f; RAI); Tumors (f; DAW; JLH); Ulcers (f1; JFM; RAI; SKJ; 60P); Urogenitosis (f; DEP; KAB; MPI; PH2); UTIs (f; RAI; SKJ); Vaginosis (f; DAV; DAW); VD (f; HH3; JFM; KAB); Viruses (1; HH3; KAB; PH2; TRA); Womb (f; JFM); Wounds (f; NPM; PH2).

### Dosages:

FNFF = X. Not considered a food. 3–6 g powdered herb (KAP); 14–28 ml tea (KAP); 900–2,700 mg plant powder/day for 3 mos (SKY); 10 plants/l water (PH2); 1–3 cups weekly for prevention, 3–4 cups/day to expel stones (RAI); 2–3 g capsule/tablet 2x/day (RAI); 2–6 ml extract (1:2) (KEB).

- Amazonians use for alopecia, amenorrhea, cancer, colic, colitis, constipation, diabetes, dysentery, dyspepsia, edema, enterosis, fever, flu, gallstones, gas, gonorrhoea, itch, jaundice, kidney stones, malaria, nephrosis, oliguria, pain, proctosis, spasms, stomachache, vaginitis, and worms (DAV; RAI; SAR).
- Ayurvedics use for menorrhagia and oliguria (KAB).
- Bahamans use for bacterial infection, cold, constipation, fever, flu, and high blood sugar (RAI).

- Brazilians use for albuminuria, arthrosis, biliousness, bladder stones, cancer, catarrh, cholecystosis, colic, cystosis, diabetes, dyspepsia, dysuria, edema, enterosis, fever, flu, gallstones, gas, gastrostis, gonorrhoea, gout, hepatosis, high blood pressure, hyperuricemia, inflammation, jaundice, kidney stones, malaria, nephrosis, obesity, oliguria, pain, proctosis, prostatitis, spasms, stomachache, and uterosis, (MPB; RAI).
- Cubans use *P. niruri* for biliousness, diabetes, dysentery, fever, malaria, and oliguria (AUS).
- Haitians use for colic, colitis, dyspepsia, enterosis, fever, flu, gas, malaria, spasm, stomachache, and oliguria (RAI).
- Nepalese apply leaf juice to cuts, inflammation, pimples, swelling, and wounds (NPM).
- Puerto Ricans use tincture as diuretic tonic in malaria with splenic and hepatic ails (KAB).
- Yunani use plant for dysentery, gastrostis, and sores, the fruits for bruises, ringworm, scabies, and tubercular sores (KAB).

#### Downsides:

Not covered (AHP; KOM; PNC). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). None reported (SKY). Taylor (2005), reflecting on reports of abortifacient and antifertility effects, cautions against use during pregnancy and advises cardiac and diabetic patients to consult their practitioner before taking. *Phyllanthus amarus* potentially toxic (X16317655). As of July 2007, the FDA Poisonous Plant Database listed seven titles alluding to toxicity of this species.

#### Extracts:

Alcoholic extracts bactericidal to *Escherichia coli* and *Micrococcus pyogenes* (WOI). Protein fraction of *P. niruri* hepatoprotective against oxidative stress in mice (X16718736). Lignans hepatoprotective *in vitro* (KEB). Of three lignans (phyllanthin, hypophyllanthin, and phyltetralin) phyllanthin proved hypouricemic, comparable to allopurinol, benzbromarone, and probenecid (X16953466). Aqueous extracts (with repandusinic acid A) inhibit HIV reverse transcriptase *in vitro*. Aqueous extracts comparable to tolbutamide as oral hypoglycemic (ZUL). LD50 dry aqueous whole plant extract 3,300 mg/kg ipr mus (HH3). Methyl brevifolincarboxylate, from the leaves of *P. niruri*, exhibited vasorelaxant effect on rat aortic rings (X16394535). Arabinogalactan from aqueous plant extracts stimulated superoxide anion production in peritoneal macrophages of mice without interfering with the nitric oxide pathway (X16252911). “*P. niruri* has been widely used against jaundice in Indian traditional medicine. Various classes of chemical constituents, such as lignans, flavonoids, triterpenoids, tannins, and alkaloids, were isolated from this plant. Its aqueous extract has been reported to inhibit DNA polymerase of hepatitis B and woodchuck hepatitis viruses, the avian myeloblastosis virus reverse transcriptase (AMV-RT), and human immunodeficiency virus type-1 reverse transcriptase (HIV-1-RT)” (X8991954). That’s over my head too but means that the tea contains chemicals that might prove useful at taming several viruses, even the HIV virus.

## BALLOON CHERRY (*Physalis angulata* L.) ++

### SOLANACEAE

#### Common Names:

Alkakengy (Wi.; AVP); Alkekenga (Haiti; AVP); Balaozinho (Brazil; MPB); Balloon Cherry (Eng.; JFM); Barbados (Wi.; AVP); Batoto (Haiti; AVP); Battre Autor (Haiti; AHL; AVP; RAI); Bitá (RAI); Bolsa Mullaca (Peru; Que.; Sp.; EGG; LOR; MDD; RAR); Bomba (Ma.; JFM);

Buchodera (Brazil; MPB); Camambu (Bol.; Brazil; Chiriguano; AVP; DLZ); Camapu (Brazil; EGG; RAI; RAR); Camaru (Haiti; AVP); Canapu (Por.; AVP); Cape Gooseberry (Eng.; RAI); Capulí Cimarrón (Peru; Sp.; EGG; LOR; MDD); Cecendet (RAI); Cerise de Juif (Fr.; AVP); Cerise de Mahon (Fr.; AVP); Coquemolle (Haiti; AVP); Coqueret (Guad.; AVP); Coqueret Alkekingi (Fr.; AVP); Coqueret de Juif (Fr.; AVP); Coqueret de la Barbade (Haiti; AVP); Coqueret Oficinal (Fr.; AVP); Coqueret Pubescent (Haiti; AVP); Cow Cherry (Ma.; JFM); Cow Pops (Ma.; JFM); Dumadu Harachan (RAI); Farolita (Ma.; JFM); Ground Cherry (Ma.; JFM); Herbe a Cloques (Haiti; AVP); Herbe aux Lanternes (Haiti; AVP); Hog Weed (Eng.; Ma.; JFM; RAI); Huevito (Ma.; JFM); Huevo de Gato (Cuba; AVP); Huevo de Tortuga (Ma.; JFM); Jua de Capote (Brazil; MPB; RAI); Judenkirsche (Ger.; AVP); K'u Chih (RAI); Manan Laman (Haiti; AHL); Manman Lanman (Haiti; AVP); Matafome (Brazil; MPB); Matajobobo Embolsado (Bol.; DLZ); Miltomate (Ma.; JFM); Mullaca (Peru; Sp.; EGG; LOR; MDD); Nvovo (RAI); Passagossi (Sudan; AVP); Physalide (Fr.; AVP); Poisonous Cape Gooseberry (Ma.; JFM); Pol-opa (RAI); Poppers (Ma.; JFM); Pops (Ma.; JFM); Sacabuche (Pr.; Sp.; AVP; RAI); Sacabuche Angulata (Pr.; Sp.; AVP); Sacabuche Anguloso (Ma.; JFM); Sapito (Ma.; JFM); Shimon (Peru; Shipibo/Conibo; EGG); Tetoro (Sudan; AVP); Thongtheng (RAI); Tinotino (RAI); Tomatillo (Ma.; JFM); Topatop (Eng.; RAI); Tope-Tope (Haiti; Ven.; AVP); Tophe-Tophe (Haiti; AVP); Topo-Topo (Sp.; AVP); Uchuva (Ma.; JFM); Urmoa Batoto (RAI); Vejiga de Perro (Sp.; AVP); Vejigon (Ma.; JFM); Vescicaria (It.; AVP); Wapotok (RAI); Wild Gouma (Ma.; JFM); Wild Tomato (Ma.; JFM); Winter Cherry (Jam.; AVP).

### Activities:

Acaricide (f; EGG); Analgesic (f; EGG; RAR); Anthelmintic (f; EGG; RAR); Antiedemic (1; JE89:171); Antiinflammatory (f1; DAV; JE89:171); Antileukemic (1; RAI; X1622143); Antilymphocytic (1; X1622143); Antiseptic (f1; DAV; EGG; RAI); Antispasmodic (1; RAI); Antitumor (1; RAI; X1622143); Antiviral (1; RAI); Bactericide (1; RAI; X10969728); Cytotoxic (1; FT72:676); Depurative (f; MPB; RAI); Diuretic (f; DAV); Expectorant (f; RAI); Gram(+)-icide (1; RAI); Gram(-)-icide (1; RAI); Hypoglycemic (1; RAI); Hypotensive (1; RAI); Immunomodulator (1; AJC20:233); Immunostimulant (1; RAI); Insecticide (f; EGG); Molluscicide (1; X12886428); Myocontractant (1; RAI); Narcotic (f; DAV; EGG); RT-Inhibitor (1; RAI); Topoisomerase-II-Inducer (1; X2539141); Topoisomerase-II-Inhibitor (1; X1658010); Tranquillizer (f; MPB); Vermifuge (f; DAV).

### Indications:

Abortion (f; JFM); Abscesses (f; EGG); Acariasis (f; EGG); Adenocarcinoma (1; FT72:676; RAI); Asthma (f; DAV; EGG; RAI); Bacteria (1; RAI; X10969728); Bleeding (f; RAI); Boils (f; RAI); Cancer (1; FT72:676; RAI; X1622143); Cancer, brain (1; FT72:676; RAI); Cancer, cervix (1; FT72:676; RAI); Cancer, colon (1; FT72:676; RAI); Cancer, liver (1; FT72:676; RAI); Cancer, lung (1; FT72:676; RAI); Cancer, nose (1; FT72:676; RAI); Cancer, pharynx (1; FT72:676; RAI); Childbirth (f; RAI); Cholecocystosis (f; RAI); Colic (f; MPB); Congestion (f; RAI); Cramps (1; RAI); Dermatitis (f; DAV; DLZ; EGG; RAI); Diabetes (f1; EGG; RAI); Diarrhea (f; RAI); Dysmenorrhea (1; RAI); Dyspepsia (f; JFM; RAI); Earache (f; DAV; EGG); Edema (f; RAI); Fever (f; JFM; RAI); Fungus (f; EGG); Gastrosis (f; AHL; RAI); Glioma (1; FT72:676; RAI); Gonorrhoea (f1; JE48:85; JFM; RAI); Hemorrhoids (f; EGG; RAR); Hepatosis (f; DAV; EGG; RAI); Herpes (1; RAI); HIV (1; RAI); High Blood Pressure (1; RAI); Hysteria (f; DLZ); Infection (f1; DAV; EGG; RAI; X10969728); Infertility (f; RAI); Inflammation (f1; DAV; EGG; JE89:171; RAI); Itch (f; EGG; RAI); Jaundice (f; DAV; RAI); Leukemia (1; RAI; X1622143); Malaria (f; DAV; EGG; RAI); Measles (1; RAI); Melanoma (1; FT72:676; RAI); Miscarriage (f; RAI); *Mycobacterium* (1; RAI; X10969728); Mycoplasma (1; RAI); Mycosis (f; EGG); Nausea (f; RAI); Nephrosis (f; DLZ; RAI); Oliguria (f; RAI); Ophthalmia (f; RAI); Orchosis (f; RAI); Pain (f; EGG; RAR); Polio (1; RAI); Proctosis (f; RAI); *Pseudomonas* (1; RAI); Puerperium (f; RAI); Rheumatism (f; DAV; EGG); Sores (f; EGG);

Spasms (1; RAI); *Staphylococcus* (1; RAI); *Streptococcus* (1; RAI); Swelling (f1; JE89:171; RAI); Syncope (f; RAI); Toothache (f; AHL); Tuberculosis (1; X10969728); VD (f1; JE48:85; JFM; RAI); Viruses (1; RAI); Worms (f; DAV; EGG; RAI).

**Dosages:**

FNFF = ! Ripe fruits edible, raw, pickled, or cooked, but green fruits toxic (EGG; JFM). ½–1 cup shoot tea 1–3×/day (RAI); 1–2 ml 4:1 shoot tincture 2×/day (RAI); 2–4 g dried shoot capsule/tablet 2×/day (RAI).

- Bolivians drink fruit decoction for colic, nephrosis, and rheumatism, and apply topically to dermatosis (DLZ).
- Brazilians use sap for earache, the plant for asthma, cholecystitis, dermatoses, fever, hepatitis, jaundice, malaria, nausea, nephrosis, oliguria, and rheumatism (RAI; SAR).
- Colombians take for asthma, bacteria, dermatoses, infection, and inflammation (RAI).
- Cuna take leaf tea for asthma (DAV).
- Peruvians use for abscesses, acariasis, asthma, bacteria, bleeding, diabetes, dermatosis, earache, hemorrhoids, hepatitis, infection, inflammation, itch, jaundice, malaria, mycoses, oliguria, pain, puerperium, rheumatism, and worms (EGG; RAI).
- Surinamese take for gonorrhea, jaundice, malaria, nephrosis, and oliguria (RAI).
- Trinidadians take for bacteria, dyspepsia, fever, nephrosis, and proctosis (RAI).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed five titles alluding to toxicity of this species.

**CAPE GOOSEBERRY (*Physalis peruviana* L.) ++**

**SOLANACEAE**

**Illustrations:**

fig 183 (DAV); p 310 (ROE)

**Synonyms:**

*Alkenkengi pubsecens* Moech.; *Physalis edulis* Sims; *P. pubescens* L.; fide (HHB; NPM; USN).

**Notes:**

Roersch (1994) comments that the most important use is in childbirth, which is not reported elsewhere in the literature and which is not explained by the meager phytochemistry.

**Common Names:**

Aguayllumantu (Peru; SOU); Aguaymanto (Peru; DAV; ROE); Ahuaimanto (Peru; SOU); Alquequenje (Sp.; USN); Ananas Kirschen (Ger.; HHB); Appelderliefde (Afrikaan; KAB); Appelliefde (Afrikaan; KAB); Awai Llumantu (Peru; ROE); Bate Testa (Brazil; MPB); Brazil Cherry (Eng.; HHB); Buchuba (Peru; ROE); Buddabusara (Tel.; KAB); Busarakaya (Tel.; KAB); Camapu (Brazil; MPB); Cape Gooseberry (Eng.; AVP; DAV; USN); Capuli (Fr.; Pi.; Sp.; ROE; USN); Cherry Tomato (Eng.; HHB); Chirboti (Mah.; WOI); Chirput (Goa; Kon.; KAB); Coqueret du Peru (Fr.; USN); Cuchuva (Ven.; AVP); Downy Groundcherry (Eng.; DAA); Erva Moura do Peru (Brazil; MPB); Essbare Judenkirsche (Ger.; AVP); Goldenberry (Eng.; JAF51:969); Gooseberry-Tomato (Eng.; USN); Grosellier du Cap (Fr.; AVP); Groshela do Peru (Por.; USN); Groundcherry (Eng.; HHB); Gudde Hannu (Kan.; WOI); Jangali Mewa (Nepal; NPM; SUW); Jua Poca (Brazil; MPB); Kaapse Klapbes (Afrikaan; KAB); Kabbar (Arab.; BOU); Kapstachelbeere (Ger.; USN); Ke Hozuki (Japan; TAN); Ku Zhi (Pin.; DAA); Kyungba (Tamang; NPM); Macao (Hindi; KAB); Mewa Raspberry (Eng.; SKJ); Miltomate (Bel.; BNA); Motipapti (Guj.; SKJ); Moti Popti (Guj.; WOI); Mullaca (Sp.; MD2); Pambudda

(Tel.; KAB); Pasa Capuli (Peru; ROE); Peruvian-Cherry (Eng.; USN); Peruvian Ground-Cherry (Eng.; FAC; USN); Phopti (Mar.; DEP; KAB); Poc Poc (Réunion; KAB); Poha (Eng.; FAC); Pompelmoer (Afrikaan; KAB); Pongpin (Burma; KAB); Potocpotokan (Tag.; KAB); Potokan (Tag.; KAB); Pungpen (Burma; KAB); Rasbhary (Delhi; Pun.; WOI); Rashberry (Delhi; Pun.; WOI); Ruru Chinchin Chinchin (Peru; ROE); Sand Cherry (Eng.; USN); Sapo de Gato (Bel.; BNA); Shimoma (Ese'ēja; MD2); Shimón (Amahuaca; Shipibo/Conibo; MD2); Sisio (Vis.; KAB); Tankasi (Sanskrit; DEP; KAB); Tekari (Ben.; DEP; KAB); Tepariyo (Hindi; KAB); Tepiriya (Ben.; KAB); Tepuria (Ben.; KAB); Tholthakkali (Tam.; WOI); Tipari (Hindi; Nwp.; KAB; NAD); Tipariya (Nwp.; KAB); Tomate (Peru; ROE); Tomate Silvestre (Peru; ROE); Tophli (Ben.; KAB); Topotopu (Ven.; AVP); Uchuba (Peru; ROE); Uchubo (Peru; ROE); Ugqumugqumu (Zulu; KAB); Uvilla (Ecu.; Sp.; USN); Vantsipaotaka (Madagascar; KAB); Vejiga de Perro (Cuba; RyM); Voanaantsindrana (Hova; KAB); Voanaka (Betsileo; KAB); Voapoalaka (Madagascar; X8627497); Wild Gooseberry (S. Afr.; KAB).

### Activities:

Analgesic (f; ZUL); Antiasthmatic (f; JAF51:969); Antifeedant (1; ZUL); Antihepatomic (1; X14967200); Antioxidant (1; JAF51:969); Antiradicular (1; X8713755); Antiseptic (f1; JAF51:969; ROE); Antiviral (1; MPI); Aperient (f; EFS); Apoptotic (1; X14967200); Cicatri-zant (f; ROE); Decongestant (f; DAV); Depurative (f; ROE); Diuretic (f1; EFS; HHB; MPI; ZUL); Febrifuge (f; EFS); Lactagogue (f; ROE); Narcotic (f; MPB); Parturient (f; ROE); Vermifuge (f1; SUW; X8627497).

### Indications:

Abscesses (f; DAA); Albuminuria (f; JAF51:969); Amebiasis (f; JAF51:969); Asthma (f; JAF51:969); Bilioussness (f; ZUL); Boils (f; ZUL); Bruises (f; ROE); Carbuncles (f; DAA); Cataracts (f; ROE); Childbirth (f; ROE); Congestion (f; DAV); Conjunctivitis (f; ROE); Coughs (f; DAV; ROE); Cystitis (f; EFS; MPB); Dermatitis (f; ZUL); Diarrhea (f; ZUL); Dyslactea (f; ROE); Dysuria (f; ZUL); Enterosis (f; DAW; SKJ; ZUL); Fever (f; DAA; EFS; ROE); Gastrosis (f; ZUL); Gonorrhoea (f; ZUL); Gout (f; ROE); Hepatoma (1; X14967200); Hepatitis (f; MD2; MPB); Herpes (f; MPB); Infection (f1; MPI; JAF51:969; ROE); Inflammation (f; KAB; ZUL); Jaundice (f; ZUL); Labor (f; ZUL); Malaria (f; ROE); Nausea (f; DAW); Nephrosis (f; JAF51:969); Odontosis (f; ROE); Ophthalmia (f; DAV; ROE); Otitis (f; MPB); Pain (f; ZUL); Parasites (f; JAF51:969); Pemphigus (f; DAA); Pharyngitis (f; DAV); Rashes (f; ZUL); Sciatica (f; ROE); Sore Throat (f; DAA); Sprains (f; ROE); Stomachache (f; ZUL); Stomatitis (f; DAV); Ulcers (f; ZUL); Viruses (1; MPI); Water Retention (f; EFS); Worms (f1; DAA; SUW; X8627497); Wounds (f; ROE).

### Dosages:

FNFF = !!! Already introduced in many European markets and worldwide. Fruits eaten fresh, dried (as "raisins"), preserved, pureed, in cakes, compotes, jams, jellies, pies, salads, and sauces (FAC; TAN). Dried fruits used as yeast substitute (FAC). Toasted seeds pickled in Nepal (NPM). Leaf juice taken for worms and bowel complaints (NAD); leaf (a/o flower) tea drunk to dilate the throat of the uterus (ROE)

- Europeans apply heated leaves to inflammation (KAB).
- Madre de Dios Peruvians eat the fruits to cleanse the kidneys (MD2).
- Madre de Dios Peruvians take root decoction with those of *Euterpe* for asthma, diabetes, and hepatitis (MD2).
- Peruvians drink teas as a lactagogue and parturient, and for liver problems (MD2; ROE).
- Zulu use leaf tea as enema for abdominal upset (KAB).

### Downsides:

The synonymous or closely related *Physalis pubescens* is described as narcotic (MPB), poisonous (BNA). As of July 2007, the FDA Poisonous Plant Database listed eight titles alluding to toxicity of this species.

**PERUVIAN POKE (*Phytolacca rivinoides* Kunth & C. D. Bouché) +  
PHYTOLACCACEAE**

**Illustrations:**

fig 185 (DAV)

**Common Names:**

Airambo (Peru; Sp.; LOR; MDD); Altasa (Col.; SAR); Altusa (Col.; SAR); Apacas (Peru; DAV); Atonsora (Col.; SAR); Atucxara (Que.; SAR); Ayrampo (Peru; SOU); Basi (Andoke; SAR); Bejuco de Paloma (Pr.; AVP); Blakawiwirie (Sur.; AVP); Calalu (Cr.; AVP); Caruru (Col.; SAR); Chaxun Rue (Cashibo; RAR); Coch Oton (Bel.; BNA); Colorin (Cr.; AVP); Epinard de Cayenne (Guy.; AVP); Gogomago (Sur.; AVP); Guagua (Col.; SAR); Jaboncillo (Bol.; Cr.; Peru; AVP; DAV); Jaboncillo Airambo (Peru; SOU); Juan de Vargas (Pr.; AVP); Nipirije (Peru; DAV); Pigeon Berry (Bel.; BNA); Poe Hoe (Peru; Sp.; LOR; MDD); Poke (Bel.; BNA); Pokeberry (Eng.; DAV; RAR); Quelite (Cr.; AVP); Telcox (Bel.; BNA); Unshum'bey (Kofan; SAR); Yamaponi (Tukano; SAR).

**Activities:**

Antidote (red pepper) (f; SAR); Antiinflammatory (f; SAR); Antioxidant (1; X9683347); Antiseptic (f; DAV); Bacteristat (f; DAV); Toxic (f; DLZ).

**Indications:**

Cancer (f; DAV); Colds (f; RAR); Dermatitis (f; DAV); Infection (f; DAV); Inflammation (f; DAV; SAR); Itch (f; DAV); Rashes (f; DAV); Wounds (f; DAV; SAR).

**Dosages:**

FNFF = !

- Andoke use warm leaf infusion as antiinflammatory and to clean wounds (SAR).
- Tanimuka apply the (saponiferous, JAD) leaves as antidote to red pepper (SAR).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**Extracts:**

Extracts exhibit antioxidant activity (X9683347)

**BITTERBUSH (*Picramnia pentandra* Sw.) +  
SIMAROUBACEAE**

**Illustrations:**

p 235 (L&amp;W)

**Common Names:**

Aceitunito (Sal.; AVP); Aguedita (Cuba; Dor.; AUS; JTR); Bitterbush (Bah.; Eng.; Fla.; Pr.; AUS; JTR; USN); Bitterbush Tree (Eng.; VOD); Bitterroot (Ma.; JFM); Bois Montagnes (Guad.; Mart.; AUS); Bois Moudongue (Guad.; Mart.; AUS); Bois Poisson (Guad.; Haiti; AUS); Bois Sardine (Haiti; AUS); Brasilete Bastardo (Cuba; AVP); Brasilete Falso (Cuba; AVP); Bwa Pwazon (Creole; Haiti; VOD); Café Marrón (Dor.; AHL; AUS); Café Rana (Brazil; AVP); Caregre (Cr.; AVP); Cedrillo (Arg.; AVP); Coralillo (Sal.; AVP); Doctor Bar (Tobago; L&W); Florida Bitterbush (Eng.; USN); Fwenn (Haiti; AUS); Graines Dorées (Guad.; AUS); Guárema (Pr.; AUS; JTR); Hueso (Pr.; AUS; JTR); Hueso Prieto (Dor.; AVP); Macary Bitter

(Jam.; AVP); Majoe Bitter (Jam.; AVP); Mange Amarillo (Col.; AVP); Marigoncillo (Cuba; AVP); Ojo de Peje (Dor.; AUS); Palo Amargo (Cuba; AVP); Palo de Hueso (Dor.; AVP); Palo de Pez (Dor.; AUS); Quina de la Tierra (Cuba; AUS; JTR); Quinina del País (Cuba; AUS; JTR); Roble Agalla (Cuba; L&W); Sanipanga (Peru; AVP); Sartillo (Cr.; AVP); Silver Bush (Fla.; AVP); Snakeroot (Ma.; JFM); Snakeroot Tree (Eng.; VOD); Snakestick (Ma.; JFM); Snakewood (Ma.; JFM); Vaillant Garçon (Haiti; AUS); Vanyon Gason (Creole; Haiti; VOD); Wild Coffee (Dwi.; L&W). (Nscn; American entries diacritically prepared).

#### Activities:

Antifertility (f; VOD); Antispasmodic (f; AUS); Aphrodisiac (f; VOD); Bitter (f1; AHL); Carminative (f; AUS); Diuretic (f; DAW; UPH); Febrifuge (f1; AHL; AUS; JTR; VOD); Oregenic (f; AUS; DAW); Sedative (f; VOD); Tonic (f; AUS); Vermifuge (f; VOD).

#### Indications:

Ague (f; AUS); Anorexia (f; AUS; DAW); Cholera (f; VOD); Colds (f; AUS; DAW); Cramps (f; AUS; JFM); Dermatitis (f; UPH); Diarrhea (f; AUS; JFM); Dysentery (f; VOD); Dysmenorrhea (f; AUS; DAW); Enterosis (f; VOD); Fever (f; AHL; AUS; JTR; VOD); Framboesia (f; AUS); Gas (f; AUS; JTR); Gastrosis (f; JFM); Impotence (f; VOD); Insomnia (f; VOD); Malaria (f; AUS; JFM); Nervousness (f; VOD); Sores (f; AUS); Stomachache (f; JFM); Tuberculosis (f; AUS; DAW); Worms (f; VOD); Yaws (f; AUS).

#### Dosages:

FNFF = ?

- Bahamans take root decoction for anorexia, cold, gas, and menstrual cramps (JFM).
- Caicos Islanders suck on a stick for diarrhea and stomachache (JFM).
- Cubans use the bark (10 g) or leaves (20 g)/liter water for biliousness, fever, and gas (JTR; L&W).
- Dominican Caribs apply the bark sap to framboesia (yaws) (AUS).
- Dominican Caribs stimulate their appetites with wood chip infusion (AUS).
- Haitians bathe nervous children with a plant preparation to calm them down (VOD).
- Haitians drink decoction (leaf, stem, a/o root) for cholera, dysentery, fever, and worms (VOD).
- Haitians use leaf decoction as antienteritic, antifertility, aphrodisiac, and febrifuge (VOD).
- Warao of Guyana use to "bitter the blood" (AUS).
- West Indians use decoction 30 g leaf/l water, or 20 g leaf + 10 g bark, for malaria (JFM).

#### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

## JAMAICA QUASSIA (*Picrasma excelsa* (Sw.) Planch.) +

### SIMAROUBACEAE

#### Synonyms:

*Aeschirion antillana* (Eggers) Small; *Picraena antillana* (Eggers) Fawcett & Rendle; *Picrasma antillana* (Eggers) Urban; *Quassia excelsa* Sw.; *Rhus antillana* Eggers; fide (USN; VOD).

#### Notes:

Authors have wisely aggregated *Picrasma* and *Quassia*, two different genera in the Simaroubaceae, which few tropical taxonomists and fewer temperate herbalists can distinguish as wood shavings, even as botanical shrubs with flowers and fruits.

**Common Names:**

Acia Aç (Tur.; EFS); Bitter Ash (Eng.; JFM; USN; VOD); Bitterholz (Ger.; EFS); Bitterhout (Dutch; EFS); Bitterwood (Eng.; Ocn.; AH2; EFS; USN); Bois Amer de Suriname (Fr.; EFS); Bois Noyer (Fr.; USN); Cascara Amarga (Sp.; JFM); Coralito (Sp.; JFM); Cuasia (Sp.; JFM); Cuasia Elevada (Sp.; JFM); Fliegenholz (Ger.; EFS); Frêne (Haiti; AHL); Fresno Amargo (Sp.; JFM); Fwenn (Creole; Haiti; VOD); Goric (Fr.; His.; AHL); Gorie Frene (Fr.; JFM); Heilighout (Dutch; EFS); Jamaica Quassia (Eng.; Scn.; AH2; USN); Jamaica Quassiawood (Eng.; USN); Kwassiehout (Dutch; EFS); Leña Amarga (Sp.; JFM); Palo Amargo (Sp.; JFM); Peste à Poux (Fr.; USN); Quassia (Eng.; CR2; EFS; USN); Quassia de Jamaica (Sp.; JFM); Quassia de la Jamaïque (Fr.; EFS); Quassiehout (Dutch; EFS); Vliegenhout (Dutch; EFS).

**Activities:**

Amebicide (1; APA; HH3); Anthelmintic (1; PHR; PH2); Anticancer (1; PH2); Antileukemic (1; APA); Antilymphomic (1; APA); Antiseptic (1; PH2); Antitumor (1; APA); Antiviral (1; PH2); Bactericide (1; APA); Bitter (2; APA; JAD; PH2; SHT; X15038116); Choleric (1; APA; PHR); Cytotoxic (1; HH3); Digestive (f1; CRC; JFM; PHR; PH2); Febrifuge (f; EFS); Fungicide (1; APA); Gastrostimulant (2; APA; JAD); Hepatotonic (f; APA); Insecticide (f1; CRC; EFS; JFM; PH2; WOI); Insectifuge (f; APA); Narcotic (f1; CRC; EFS); Negatively Chronotropic (1; PH2); Orexigenic (f1; JFM; PHR; PH2); Pesticide (f; APA); Piscicide (f1; CRC; EFS); Plasmodicide (1; HH3); Positively Inotropic (1; HH3; PH2); Purgative (f; PHR); Sialagogue (2; APA; CAN; HH3); Stomachic (f; CRC; JFM); Tonic (f; CRC; JFM; PHR); Vermifuge (f; CRC; JFM).

**Indications:**

Amebiasis (1; APA; HH3); Anorexia (f12; APA; HH3; JFM; PH2; VOD); Bacteria (1; APA); Cancer (f1; APA; JLH; PH2); Cholecystitis (f; APA); Dysentery (f; JFM; VOD); Dyspepsia (f; HH3; JFM; PH2; VOD); Endothelioma (f; CRC; JLH); Enterosis (f; VOD); Epithelioma (f; CRC; JLH); Fever (f; CRC; EFS; HH3; JFM; VOD); Fungus (1; APA); Hepatosis (f; APA); Infection (1; APA; HH3; PH2); Leukemia (1; APA); Lymphoma (1; APA); Malaria (f1; HH3; JFM); Nematode (f; APA); Nephrosis (f; APA); Parasites (1; APA); Pediculosis (1; APA; CAN); Sarcoma (f; CRC; JLH); Threadworm (f1; JFM); Viruses (1; PH2); Worms (f1; APA; CRC; HDN; JFM; PHR; PH2); Wounds (f; HH3); Yaws (f; VOD).

**Dosages:**

FNFF = ! Extracts of woods used in bitters; wood chips substituted for hops in beer making (FAC). 0.25 tsp (0.5 g) powdered wood/cup water, ½ hr before meals (APA); 0.3–0.6 g powdered wood (PNC); 0.3–0.6 g dry wood, or in cold tea, 3×/day (CAN); 2.5–5 ml tincture or wood tea (APA; PNC); 2–4 ml tincture (CAN); 2.5–5 ml tincture (PNC); 1–4 ml concentrated BPC wood infusion (CAN); 1–2 g decoction/day (AHP).

- Cubans take wood infusion as antidiarrheal, bitter, digestive, febrifuge, and stomachic (JFM).
- Dominican Caribs drink wood chip infusion for poor appetite (VOD).
- Dominican Caribs squeeze bark sap onto framboesia (yaws) (VOD).
- Haitians drink bark and leaf decoction for anorexia, dysentery, dyspepsia, enterosis, fever, and worms (VOD).
- Jamaicans take wood decoction for pediatric threadworm (JFM).

**Downsides:**

Class 2b (AHP). Excessive amount can irritate the gastric mucosa and cause vomiting. Use during pregnancy and lactation discouraged. Excessive doses may interfere with cardiac and coagulant therapy (CAN). Folklore has it that chronic use can lead to poor vision, even total blindness; shades of another bitter, absinthe. As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.



**Extracts:**

Extract a natural bittering agent (X15038116). No side effects noted in 454 patients who used quassia tincture as a scalp lotion for head lice. N-methoxy-2-vinyl-beta-carboline: antimarial IC<sub>50</sub> = 2–2.7 µg/ml, plasmodicide IC<sub>50</sub> = 2–2.7 µg/ml; 5-methoxycanthin-6-one: anti-tumor, cytotoxic, ED<sub>50</sub>–5.4 µg/ml (FNF).

**JABORANDI (*Pilocarpus* spp.) +****RUTACEAE****Synonyms:**

*Pilocarpus officinalis* Pohl; fide (MPG).

**Notes:**

Fleming et al. (1998) data below refer to *Pilocarpus microphyllus*, Mors et al. (2000) to *P. pennatifolius*, Gupta (1995) to *P. jaborandi* (MPB; MPG; PHR). Rightly or wrongly, McGuffin et al. (2000) and Taylor (2005) treat three species under the standardized common name, “jaborandi”: *P. jaborandi*, *P. microphyllus*, and *P. pennatifolius* (AH2; RAI).

**Common Names:**

Arruda (*P. microphyllus*) (Por.; USN); Arrudo Brava (Ma.; RAI); Arrudo do Mato (Brazil; RAI); Cataí Guaçu (Brazil; MPB); Ibiritaí (Brazil; MPB); Indian Hemp (Eng.; RAI); Jab-orandí (*P. jaborandi*, *microphyllus* & *pennatifolius*) (Bol.; Brazil; Eng.; Scn.; Tupi; AH2; CR2; DLZ; USN); Jaborandí do Norte (Brazil; MPB); Jamburandi (Ma.; RAI); Juarandi (Ma.; RAI); Maranhao Jaborandi (*P. microphyllus*) (Eng.; Ocn.; AH2); Pacohorris (Bol.; Chiquitano; DLZ); Paraguay Jaborandi (*P. pennatifolius*) (Eng.; Ocn.; AH2; USN); Pernambuco Jaborandi (*P. jaborandi* & *microphyllus*) (Eng.; Ocn.; AH2; USN); Pimenta de Cachorro (Brazil; MPB; RAI); Ruda del Monte (Brazil; MPG).

**Activities:**

Allergenic (f; CRC); Anesthetic (f; PH2); Antidote (atropine) (1; CRC; RAI); Antiglaucomic (1; RAI); Antiinflammatory (1; RAI); Capillaritonic (f; MBC); Cardiodepressant (1; CRC); Cholimimetic (1; CRC); Diaphoretic (f1; CRC; DLZ; MPB; PHR; PH2; RAI); Diuretic (f1; MPB; RAI); Emetic (f; CRC; PH2); Expectorant (f; RAI); Gastrostimulant (1; PHR; PH2); Insecticide (1; X17401472); Lacrymator (1; CRC; PH2); Lactagogue (f1; CRC; MPG; NMH; RAI); Miotic (1; MPB; MPG); Mitotic (1; CRC); Myostimulant (1; PH2); Parasympathomimetic (1; CRC; PH2); Peristaltic (1; CRC); Poison (f; CRC); Secretagogue (1; PH2); Sialagogue (1; CRC; PHR; PH2; RAI); Stimulant (f; DLZ); Teratogenic (f; CRC); Tonic (f; MPG).

**Indications:**

Alopecia (f; CRC; RAI); Angina (f; DLZ); Asthma (f; CRC; DLZ); Bright's Disease (f; CRC); Bronchosis (f; DLZ; MBC); Cancer (f1; EB51:49); Catarrh (f; CRC; DLZ; RAI); Colds (f; RAI); Colitis (f; RAI); Congestion (f; RAI); Convulsions (f; PH2); Deafness (f; CRC; RAI); Diabetes (f; CRC; RAI); Diarrhea (f; PHR); Diphtheria (f; RAI); Dropsy (f; CRC); Dyslactea (f; RAI); Edema (f; RAI); Enterosis (f; CRC; PH2; RAI); Epilepsy (f; PH2; RAI); Fever (f; CRC; PH2; RAI); Flu (f; PH2; RAI); Gastrosis (f; PH2; RAI); Glaucoma (1; PHR; PH2; RAI); Gonorrhea (f; PH2; RAI); Heart (f; CRC); Hepatosis (f; CRC); Inflammation (f1; PH2; RAI); Ischuria (f; PH2); Itch (f; CRC; RAI); Jaundice (f; CRC); Kidney Stones (f; RAI); Laryngosis (f; DLZ; RAI); Nausea (f; CRC); Nephrosis (f; CRC; PH2; RAI); Neurosis (f; PH2); Ophthalmia (1; MPB); Pain (f; PH2); Pleurisy (f; CRC; RAI); Pneumonia (f; PH2; RAI); Psoriasis (f; CRC; PH2; RAI); Rheumatism (f; CRC); Sjogren's (1; RAI); Sleep Apnea (f1; RAI); Snoring

(f1; RAI); Stomatosis (f; RAI); Swelling (f; RAI); Syphilis (f; CRC); Thirst (f; CRC); Tonsillitis (f; CRC; RAI); VD (f; CRC; RAI); Xerostomia (f1; EB51:49; RAI).

**Dosages:**

FNFF = ?

- Brazilians use for alopecia, asthma, bronchitis, cold, diabetes, diphtheria, edema, fever, flu, hepatitis, laryngitis, nephrosis, oliguria, ophthalmia, pleurisy, and pneumonia (RAI).
- Mexicans use for edema, nephritis, pleurisy, and rheumatism (RAI).
- Peruvians suggest as diaphoretic, diuretic, lactagogue, and sialagogue (RAI).

**Downsides:**

Class 2b (AHP). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). But they designate no dosage! (JAD). Not for use during pregnancy (PH2). The lethal dose of pilocarpine is ca. 60 mg, corresponding to 5–10 g drug (PHR). My database suggests that it is much less toxic, LD50 pilocarpine = 911 mg/kg orl rat. May potentiate cardiac, cholinergic, diuretic, and sialagogue medicines (FNF; RAI). Poisoning possible through eye drops, being absorbed through eye or nose; may cause bradycardia, bronchial cramps, colic, convulsions, dehydration, diaphoresis, dyspnea, emesis, flushing, headache, hypotension, polyuria, pupal contractions, and salivation, rarely fatal pulmonary edema (PH2; RAI). As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**Extracts:**

The FDA in 1994 approved pilocarpine for treating post-irradiation xerostomia in head and neck cancer patients (EB51:49).

**ALLSPICE (*Pimenta dioica* (L.) Merr.) ++**

**MYRTACEAE**



**Illustrations:**

p 13 (CR2); p 251 (TRA)

**Synonyms:**

*Eugenia pimenta*; *Myrtus dioica* L.; *M. pimenta* L.; *Pimenta officinalis* Lindl.; *P. pimenta* (L.) H. Karst.; *P. vulgaris* Lindl.; fide (JTR; USN).

**Common Names:**

Allspice (Bel.; Eng.; CR2); Bois d'Inde (Guad.; Mart.; St. Lucia; AVP); Bois Z'amour (Haiti; AVP); Canela de Montaña (Sp.; JFM); Cardamomon (It.; AVP); Clove Pepper (Eng.; HOS); Cravo (Por.; JFM); Cravo Canela (Por.; JFM); Cuatro Especies (Sp.; JFM); Guayabo Malagueta (Sp.; JFM); Jamaica (Cr.; AVP; JFM); Jamaica Allspice Tree (Eng.; EFS; HOS); Jamaica Peperbaum (Dutch; EFS); Jamaica Pepper (Eng.; EFS; HOS; JFM); Malagueta (Dor.; Mex.; Pr.; Sp.; Ven.; AVP; JFM; JTR; TRA); Malagueta (Por.; AVP); Malaguette (Haiti; AHL; AVP); Myrte Piment (Haiti; AVP); Nelkenpfefferbaum (Ger.; EFS); Palo de Malagueta (Pr.; Sp.; JFM; JTR); Patalote (Sp.; JFM); Patololote (Mex.; AVP); Pepita de Especie (Ven.; AVP; JFM); Piment (Den.; Dutch; Ger.; EFS); Pimenta de Coros (Por.; AVP); Pimenta de Jamaica (Por.; AVP); Pimenta Malagueta (Por.; AVP); Piment de la Anglais (Fr.; EFS); Piment de la Jamaïque (Fr.; JFM; JTR); Pimento (Eng.; It.; Jam.; AVP; EFS; HOS); Pimenton (Sp.; JFM); Pimienta (Cuba; Eng.; Pr.; AVP; HOS; JTR); Pimienta de Chiapas (Sp.; JFM); Pimienta de Jamaica (Sp.; JFM); Pimienta de Tabasco (Sp.; EFS); Pimienta Dulce (Sp.; JFM); Pimienta Gorda (Guat.; AVP; JFM); Pimienta Oloroso (Cr.; Jam.; Nic.; AVP; JFM; JTR); Pimientoo (Mex.; AVP); Poivre de Jamaïque (Haiti; AHL; AVP); Poivre de la Jamaïque (Fr.; EFS); Semem Amomi (Ma.; JFM); Shuleke (Ma.; JFM); Spice (Trin.; AVP; JFM); Spice Leaf (Br. Guy.; AVP); Tabasca (Sp.; JFM); Toda Especia (Sp.; JFM); Toute-Épice (Fr.; EFS); Yenibahar (Tur.; EFS).

**Activities:**

Analgesic (f1; APA; CRC; EFS; FNF; JFM; JTR; PH2; X9404514); Anesthetic (f1; APA; RIN); Antiaggregant (1; HOS); Anticonvulsant (f1; APA); Antiedemic (1; HOS); Antiemetic (1; TRA); Antihemorrhagic (1; X10883329); Antiinflammatory (f1; HOS); Antiophidic (1; X10883329); Antioxidant (1; APA; CRC; X10869193; X11237173; X12860316); Antiseptic (f1; APA; PH2); Antispasmodic (f1; APA); Antistroke (1; HOS); Antiviral (1; APA; HOS); Aphrodisiac (f; JTR); Bactericide (1; APA; CRC); Candidicide (1; APA); Cardioprotective (1; HOS); Cardiotonic (1; HOS); Carminative (f1; AAB; APA; CRC; EFS; JFM); Circulotonic (1; HOS); CNS-Depressant (1; APA; X9173181; X9404514); Collagenase-Inhibitor (1; HOS); COX-2-Inhibitor (1; HOS); Depurative (f; CRC; JFM); Digestive (f1; APA); Diuretic (1; HOS); Elastase-Inhibitor (1; HOS); Enterotonic (1; TRA); Febrifuge (f1; JFM; X9404514); Fungicide (1; AAB; APA; CRC); Hypotensive (1; FNF; HOS; X11021313; X9173181); Irritant (1; PH2); Larvicide (1; APA); Lipoxxygenase-Inhibitor (1; HOS); Myorelaxant (f1; HOS); Neurotonic (f; BOW); Parasiticide (1; APA); Rubefacient (1; PH2); Sedative (1; HOS); Stimulant (f; CRC; HHB); Stomachic (f; CRC; JFM); Tonic (f; CRC; HHB); Uterotonic (1; TRA); Vasodilator (1; HOS).

**Indications:**

Alzheimer's (1; COX; HOS); Arthrosis (f1; AAB; COX; RIN); Athlete's Foot (f1; AAB); Bacteria (1; APA); Bruises (f; CRC); Cancer, colon (1; COX; HOS); Colds (f; CRC); Colic (f1; AAB; APA); Convulsions (f1; APA); Corns (f; CRC; JLH); Cramps (f1; AAB; APA); Diabetes (f; CRC; JFM); Diarrhea (f; APA); Dysmenorrhea (f1; AAB; CRC; JFM); Dyspepsia (f; AAB; APA; CRC); Edema (f1; HOS); Enteralgia (f; APA); Exhaustion (f1; AAB); Fever (f1; JFM; X9404514); Fungus (f1; APA); Gas (f1; AAB; APA; CRC); Gastrosis (f; JFM); Gingivosis (1; APA); Hemorrhage (1; X10883329); High Blood Pressure (1; FNF; HOS; X11021313; X9173181); Impotence (f; JTR); Infection (1; APA; HOS); Myalgia (1; APA); Mycosis (f1; AAB); Nausea (1; TRA); Neuralgia (f; CRC); Neurasthenia (f; BOW); Pain (f1; AAB; APA; FNF; CRC; JFM; JTR; X9404514); Parasites (1; APA); Pulmonosis (f; BOW); Rheumatism (f1; AAB; HOS); Snake Bite (1; X10883329); Stomachache (f1; APA; CRC; JFM); Stomatosis (1; APA); Stroke (1; HOS); Swelling (f1; HOS); Toothache (f1; APA; JTR); Vaginosis (1; APA); Vomiting (1; APA; FNF); Yeast (1; APA).

**Dosages:**

FNFF = !!! Allspice is the dried unripe fruit, used as a condiment, in baked goods, chutney, ice cream, ketchup, mixed spices, pickles, sauces, soups, and in flavoring sausages and curing meats. Allspice powder consists of whole ground dried fruits. Mexican Indians used allspice to flavor chocolate. Cubans use it in “prú,” a popular beverage in the Oriente of Cuba. I use it to flavor eggnog. Allspice is essential in seasoning Jamaican jerked foods, which are also flavored by the smoke of pimento wood fires. Jamaican “pimento dram” is made of ripe fruits and rum. Allspice is used in such liqueurs as Benedictine and Chartreuse. The oil is used in flavoring beverages, candies, chewing gums, liqueurs, meats, and sauces. Leaves also used as spice. Bahamians, like many others, make tea from the leaves. 1–2 tsp herb/cup water 3×/day (APA; FAC; HOS; JFM); 4–6 fruit/cup water as stimulant (JFM); 0.5–2 g powdered fruit (PNC); 2–4 ml liquid extract (PNC); 0.05–0.2 ml EO (PNC).

- Bahamians take the leaf tea as a tonic (JFM).
- Belizeans bathe in warm decoction for exhaustion, using sitz bath for menstrual cramps (AAB).
- Belizeans plaster crushed berries on foot fungus and rheumatic aches and pains (AAB).
- Belizeans take berry or leaf tea for colic, dyspepsia, and gas (AAB).
- Costa Ricans take the leaf infusion as carminative and stomachic, good for diabetes (HOS).
- Cubans drink the refreshing tea as depurative, stimulant, and tonic (HOS; JTR).
- Guatemalans apply allspice externally for bruises and rheumatic pain (HOS).
- Jamaicans take the fruit decoction for colds, dysmenorrhea, menorrhagia, and stomach-ache (HOS; JFM).

**Downsides:**

Class 1 (AHP). Not covered (KOM). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). Rinzler (1990) recounts a study of 408 eczema patients, in which 19 reacted positively to allspice patch tests. As of July 2007, the FDA Poisonous Plant Database listed six titles alluding to toxicity of this species.

**Extracts:**

“The berries, their oil, and the eugenol extract promote the activity of the digestive enzyme trypsin, which may help explain why allspice has traditionally been used as a digestive aid.” (APA). 25 compounds from the berries show antioxidant activity (X11237173). Ethanollic and aqueous extracts exhibit hypotensive and CNS-depressant activity, with aqueous extract (30, 70, 100 mg/kg) producing dose-related significant drop in mean arterial blood pressure (95% decrease at 100 mg/kg) more so than the ethanollic extract (67% decrease at 100 mg/kg) (X9173181). Extract neutralized the hemorrhagic activity induced by venom from *Bothrops asper* (X10883329). As the source of eugenol, perhaps second only to some varieties of clove (up to 20% eugenol) and cinnamon (to 3.8%), allspice (to 3.6% eugenol) is a major source of eugenol, which has all sorts of biological activities: analgesic, anesthetic 200–400, antiaggregant IC<sub>50</sub> = 0.3 μM, antiarachidonate, anticonvulsant, antiedemic, anti-inflammatory 11 μM, antimitotic, antimutagenic, antinitrosating, antioxidant IC<sub>65</sub> = 30 ppm, antiprostaglandin 11 μM, IC<sub>50</sub> = 9.2 mM, antiradicular EC<sub>50</sub> = 2 μl/l, antiseptic 3 ml/man/day, antithromboxane, antitumor, antiulcer, apifuge, bactericide 500 ppm, calcium-antagonist IC<sub>50</sub> = 224 μM, cancer-preventive, candidicide, carminative, choleric, CNS-depressant, cytochrome P450-inhibitor, enterorelaxant, febrifuge 3 ml/man/day, fungicide, hepatoprotective 100 ppm, larvicide, motor-depressant, sedative, spasmolytic, trypsin-enhancer, and vermifuge (FNF).

**BAYRUM TREE (*Pimenta racemosa* (Mill.) J. W. Moore.) + + +****MYRTACEAE****Illustrations:**

p 65 (CR2); p 415 (L&W)

**Synonyms:**

*Amomus acris*; *A. caryophyllatus* Krug & Urban; *Caryophyllus racemosus* Miller; *Myrcia acris*; *Myrtus acris* Sw.; *M. caryophyllatus* sensu Jacq. non L. *M. pimenta* Ortega; *Pimenta acris* Kostelm.; fide (EFS; JTR; VOD).

**Notes:**

Fleming et al. (1998) entries (as PHR) are equivocal and probably apply to *Pimenta dioica* (allspice), although Gruenwald (2000) labeled it *Pimenta racemosa*. Since they both have the same chemicals and activities, I don't consider this a serious error.

**Common Names:**

Ausú (Ma.; Pr.; JFM; L&W); Bayberry Tree (Eng.; Jam.; JFM; L&W); Bayboom (Dutch; Sur.; JFM; L&W); Bayleaf (Eng.; Tobago; JFM; L&W); Bayrum Tree (Eng.; CR2; VOD); Bay Tree (Eng.; JFM); Berrón (Dor.; TRA); Bois d'Inde (Fr.; Haiti; JFM); Bois d'Inde Francais (Fr.; JFM); Bwaden (Dom.; TRA); Bwadin (Creole; Haiti; VOD); Canelillo (Dor.; Sp.; JFM); Chinamulaku (Mal.; KAB); Cinnamon (Eng.; JFM); Fausse Giroflee (Ma.; JFM); Gandammenasu (Kan.; KAB); Guayabita (Pr.; Sp.; JFM; JTR); Kappalmulaku (Mal.; KAB); Katttukkaruva (Tam.; KAB); Lemon-Scented Allspice (Eng.; JFM); Lemon-Scented Pimento (Eng.; JFM); Limoncillo (Pr.; Sp.; JFM; L&W); Malagueta (Cuba; Dor.; Pr.; Sp.; JFM; JTR; L&W); Malayalamunji (Kan.; KAB); Maramenasa (Kan.; KAB); Ozúa (Dor.; Ma.; JFM; L&W); Pimienta Colorado (Sp.; JTR); Pimienta de Tabasco (Cuba; Sp.; JFM; L&W); Pimienta de Thevet (Sp.; JTR); Pimiento (Cuba; JTR); Quatre Epices (Réunion; KAB); West Indian Bay (Eng.; USN); West Indian Bayberry (Eng.; JFM); Wild Cilliment (Vi.; L&W); Wild Cinnamon (Eng.; Jam.; Vi.; JFM; L&W); Wild Olive (Jam.; L&W).

**Activities:**

Allergenic (1; CRC); Analgesic (f1; CRC; FNF; JFM; PHR; TRA; X15036471); Anesthetic (1; HOS); Anticariogenic (1; HOS); Antiedemic (1; HOS); Antifumitory (f; JFM); Antiinflammatory (1; HOS; X11421264; X11428663; X11732756; X15036471); Antioxidant (1; HOS; X12749199); Antiprostaglandin (1; HOS); Antirheumatologic (1; HOS); Antiseptic (f1; CRC; TRA; VOD); Antispasmodic (1; TRA); Antiviral (1; HOS); Astringent (f1; BOW; VOD); Bactericide (1; HOS; X12581376; X15351118); Candidicide (1; HOS); Carminative (f; CRC; JFM); Cox-2-Inhibitor (1; FNF; HOS); Digestive (f; CRC); Expectorant (f1; CRC; EB30:133); Febrifuge (f; JFM); Fungicide (1; TRA); Interleukin-1beta-Inhibitor (1; X11732756); Larvicide (1; X17019775); Myorelaxant (1; HOS); Narcotic (1; TRA); Parasympatholytic (1; TRA); PGE2-Inhibitor (1; X11428663; X11732756); Rubefacient (f; BOW; PHR); Sedative (1; TRA); Stimulant (f; CRC; JFM); Stomachic (f; CRC); TNF-alpha-Inhibitor (1; X11732756); Vulnerary (1; HOS).

**Indications:**

Adenopathy (f; CRC; DAW); Alopecia (f; BOW); Arthrosis (f1; FNF; JFM; VOD); Bacteria (1; HOS; X12581376; X15351118); Bites (f; CRC; VOD); Bruises (f; CRC; VOD); Cancer (f; CRC); Cancer, breast (f; JLH); Cancer, uterus (f; JLH); *Candida* (1; TRA); Caries (1; FNF; HOS); Chest Colds (f; CRC; JFM); Chills (f; BOW); Colds (f; CRC); Cramps (f1; TRA; VOD); Dandruff (f; BOW); Dermatitis (f; JFM); Diarrhea (f; CRC; JFM; VOD); Dyspepsia (f; CRC); Dysuria (f; CRC; JFM); Edema (f1; CRC; VOD; X11421264); Elephantiasis (f; CRC; VOD); Enterosis (f; VOD); Fever (f; CRC; JFM; VOD); Flu (f; CRC; JFM); Fungus (1; TRA); Gas (f; JFM); Gastrosis (f; VOD); Grippe (1; FNF; JFM); Headache (f; CRC; VOD); Incontinence (f; CRC; VOD); Indura-

tion (f; JLH); Infection (f1; CRC; DAW; HOS; TRA); Inflammation (1; FNF; HOS; X11421264; X11428663; X11732756; X15036471); Lethargy (f; JFM); Myalgia (f1; FNF; JFM; VOD); Mycosis (1; TRA); Myosis (1; FNF; JFM); Nausea (f; CRC; VOD); Neuralgia (f; BOW); Nicotinism (f; JFM); Pain (f1; FNF; JFM; PHR; TRA; VOD; X15036471); Pleurisy (f; CRC; JFM); Pneumonia (f; CRC; JFM); Rheumatism (f1; FNF; JFM; TRA); Scirrhus (f; JLH); Smoking (f; CRC; JFM); Sores (f; JLH); Sore Throat (f; CRC; VOD); Spasms (f1; CRC; HOS); Stomachache (f; VOD); Strangury (1; FNF; HOS); Stroke (f; CRC; JFM); Swelling (f; X11421264); Toothache (f1; CRC; FNF; JFM; TRA); Trichomonas (1; TRA); Tumors (f; JLH); Uterosis (f; JLH); Varicosity (f; CRC; VOD); Vertigo (f; CRC; VOD); Viruses (1; FNF; HOS); Yeast (1; HOS; TRA).

#### Dosages:

FNFF = ! Leaves distilled for the spicy bay oil. Bay rum occasionally drunk. Oil used for flavoring foods, chiefly in table sauces. Both bark and fruits used for flavoring in the Caribbean, e.g., in “blaff,” a fish broth. Dried green berries used for flavor (HOS).

- Cubans take decoction of 4 seeds in small cup water as stimulant (JFM).
- Curaçaoans take leaf decoction for colds and flatulence (JFM).
- Grenadans take leaf decoction for diarrhea (JFM).
- Jamaicans take leaf decoction for cold and fever (JFM).
- Puerto Ricans rub analgesic leaves on body for flu, myalgia, and rheumatism (JFM).
- Trinidadans take leaf decoction for chest cold, fever, flu, pneumonia, and stroke (JFM).
- West Indians mix the mashed leaves with clove and garlic for toothache (TRA).

#### Downsides:

Not covered (AHP). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). Some people react to eugenol (PH2). As of July 2007, the FDA Poisonous Plant Database listed six titles alluding to toxicity of this species.

#### Extracts:

Aqueous leaf extract of *P. racemosa* var. *ozua* significantly antinociceptive (125 and 250 mg/kg) and antiinflammatory (125 and 250 mg/kg), with moderate toxicity (LD50: 287 +/- 12.9 mg residue/kg; 1.854 +/- 0.083 g plant/kg) (X15036471). *In vitro*, lupeol significantly reduced PGE2 and inhibited cytokine production (TNF-alpha and interleukin-1beta) at 10–100 μM (X11732756). The diterpene abietic acid antiinflammatory and at high doses (100 μM) inhibited PGE2 (X11428663). EO of *P. racemosa* var. *terebinthina* and *P. racemosa* var. *grisea* show bactericidal activity (X15351118). LD50 (EO) = 443 mg/kg orl rat (TRA).

## CARIBBEAN PINE (*Pinus caribaea* Morelet) ++

### PINACEAE

#### Illustrations:

fig 260 (LWW)

#### Synonyms:

*Pinus bahamensis* Griseb.; *P. caribaea* var. *bahamensis* (Griseb.) W.H. Barrett et Golfari; *P. caribaea* var. *hondurensis* (Sénécl.) W.H. Barrett et Golfari.; *P. hondurensis* Loock.; *P. taeda* var. *heterophylla* Elliott.

#### Notes:

Native to the Bahamas, Cuba, and Central America (Belize to Nicaragua) and widely introduced elsewhere, e.g., Haiti and Peru. *P. caribaea* var. *hondurensis* is listed as threatened by

the Mexican government (CJE). It is suggested that continuous stress on the pines harvested by the leaf-cutter ant (*Atta laevigata*) may induce higher levels of secondary metabolites (X10996258).

**Common Names:**

Black Pine (Bel.; Eng.; JFM; LWW); Bois Pin (Haiti; AVP); Bwa Pen (Creole; Haiti; VOD); Caribbean Pine (Eng.; JFM; USN; VOD); Cuban Pine (Eng.; JFM); Honduran Pine (Eng.; JFM); Huhub (Ma.; JFM); Karibische Kiefer (Ger.; USN); Ocote (Guat.; LWW); Pino Amarillo (Cuba; LWW); Pino Blanco (Sp.; LWW); Pino Caribe (Sp.; TTS); Pino Colorado (Guat.; LWW); Pino Cubano (Sp.; TTS); Pino de Ocote (Sp.; JFM); Pino Hondureño (Sp.; LWW); Pino Macho (Cuba; LWW; RyM); Pitch Pine (Bel.; Eng.; JFM; LWW; USN); Sachaj (Ma.; JFM); White Pine (Bel.; Eng.; JFM; LWW). (Nscn; American entries diacritically prepared).

**Activities:**

Analgesic (f; DAW; JFM); Hemostat (f; JFM); Rubefacient (f; DAW).

**Indications:**

Bleeding (f; JFM); Bronchosis (f; VOD); Childbirth (f; JFM); Colds (f; DAW); Dermatitis (f; JFM; VOD); Eczema (f; JFM; VOD); Gout (f; VOD); Pain (f; DAW; JFM); Rheumatism (f; JFM; VOD).

**Dosages:**

FNFF = ? Seeds, shoots, and even stem exudates of other species eaten (JAD).

- Caicos Islanders decoct the bark with several other species for bleeding after childbirth (JFM).
- Cubans mix sawdust with that of *Guaiacum* in alcohol as a rheumatism liniment (JFM).
- Haitians mix sawdust or resin with lemon juice as a rub for rheumatism (VOD).
- Haitians apply fresh resin to eczema (VOD).
- Haitians use the bud decoction for bronchitis (VOD).
- Haitians use leaf or wood decoction in baths for gout and rheumatism (VOD).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**Extracts:**

Pines grown on nutrient poor sandy soils had higher concentrations of alpha-pinene, camphene, sabinene, myrcene, alpha-phellandrene, beta-phellandrene, beta-caryophyllene, alpha-humulene, and a higher total monoterpene content than pines grown on richer soils. This goes with my speculation that stressed plants produce more secondary metabolites (read medicine) than unstressed plants. Fertilizing these plants would, I speculate, lower their percentage of secondary metabolites and increase their percentage of primary metabolites. Yes, I am saying that one need not pamper one's medicinal plants.

**MATICO (*Piper aduncum* L.) +**

**PIPERACEAE**

**Synonyms:**

*Artanthe adunca* Miq.; *Piper angustifolium* Ruiz & Pav.; *P. celtidifolium* Kunth; *P. elongatum* Vahl; *P. multinervium* var. *amplum* Trel.; *P. multinervium* var. *kantelolense* Trel.; *P. multinervium* var. *skutchii* Trel.; *P. stevensonii* Trel. ex Standl.; fide (RA2; USN).

**Notes:**

According to Taylor, the Spanish name “matico” comes from the South American legend of a wounded Spanish soldier named Matico, who probably learned from the Indians that applying the leaves to his wounds stopped them from bleeding (RAI), hence the name “matico” or “soldier’s herb or tree.” Introduced in the United States and Europe as a styptic and astringent for wounds by a Liverpool physician in 1839 (RA2). The Madres de Dios entries were under matico, “*Piper hispidum* y otras.” (MD2). Thus this account is rather generic for several closely related *Piper* species popularly known as “matico.”

**Common Names:**

Aduncum (Brazil; Por.; USN); Akui ‘Iña-Sié (Ese’aja; MD2); Anisillo (Sp.; RA2); Aperta-João (Brazil; Por.; USN); Aperta-Ruão (Brazil; Por.; MPB; RA2; USN); Bamboo Piper (Eng.; RA2); Chima Matiku (Quechua; DLZ); Cordoncillo (Sp.; POR; RA2; USN); Cordoncillo Negro (Sp.; POR; RA2); Erba di Soldato (It.; POR; RA2); Erva-de- Jaboti (Por.; MPB; RA2); Erva-de-Soldado (Por.; RA2); False Kava (Eng.; Fiji; Vanuatu; POR; RA2); Gaa Ma Da Oedoe (RA2); Guayayo (RA2); Gusanillo (RA2); Herbe du Soldat (Fr.; POR; RA2); Higuillo (Sp.; RA2; USN); Higuillo de Hoja (RA2); Higuillo de Hoja Menuda (Sp.; POR); Hoja Santa (Mex.; Sp.; POR; RA2); Jaborandi-do-Mato (Brazil; Por.; MPB; USN); Jaborandi Falso (Brazil; Por.; RA2; USN); Jawawa (Ese’aja; MD2; RA2); Jointwood (RA2); Kakoro (RA2); Malembe Toto (RA2); Man-Anihs (RA2); Matico (Fr.; Bol.; Brazil; Peru; Sp.; CR2; POR; MPB; RA2); Maticoblätter (Ger.; POR; RA2); Matico Falso (Brazil; MPB); Matico Pepper (Eng.; POR; RA2); Matico-Pfeffer (Ger.; POR); Matika (RA2); Matiko (Tur.; POR; RA2); Matîkû (Arab.; POR); Matiku (Aym.; DLZ); Menuda (RA2); Moco-Moco (Que.; MD2; RA2); Moho-Moho (RA2); Mucumucu (RA2); Pimenta-de-Folha-Larga (Brazil; MPB); Pimenta-de-Fruto-Ganchoso (RA2); Pimenta de Fruto Ganxoso (RA2); Pimenta-de-Macaco (MPB; RA2); Pimenta-do-Fruto-Ganchoso (Brazil; Por.; USN); Pimenta-Matico (Brazil; MPB; RA2); Santa Maria Negro (RA2); Shiatani (Shipibo/Conibo; MD2; RA2); Soldatenkraut (Ger.; POR); Soldaten Kraut (Ger.; RA2); Soldier’s Herb (RA2); Spiked Pepper (Eng.; POR; RA2; USN); Tapa-Curaco (RA2); Tokondé (Amahuaca; MD2; RA2); Tupa Burraco (RA2); Upnpoingpoing (Amarakaeri; RA2); Wer-Ui-Qui-Yik (RA2); Xia Ye Hu Jiao (China; POR); Zoloja (Bol.; DLZ).

**Activities:**

Antigonorrheal (1; X8583798); Antihemorrhagic (f; RA2); Antiinflammatory (f; RA2); Anti-leishmanic (1; RA2; X10223942; X10390243); Antinauseant (f; RA2); Antiseptic (f1; DAV; MD2; RA2); Antispasmodic (f; RA2); Antiviral (1; RA2); Antiyeast (1; RA2); Aphrodisiac (f; HHB); Astringent (f1; MAD; MD2; RA2); Bactericide (1; RA2; X15894143; X8158163; X8302955); Candidicide (1; RA2; X17234373); Carminative (f; RA2); Cholagogue (f; MPB; RA2); Cicatrizant (f; DLZ; RA2); Cytotoxic (1; RA2; X8158163); Decongestant (f; RA2); Depurative (f; RA2); Digestive (f; RA2); Diuretic (f; HHB; JFM; RA2); Expectorant (f; RA2); Fungicide (1; RA2); Gram(+)-icide (1; RA2; X15894143); Gram(-)-icide (1; RA2; X15894143); Hemostat (f1; MAD; MD2; PH2; RA2); Insecticide (f1; JFM; RA2); Laxative (f; JFM); Molluscicide (1; RA2; X8302955); Mucolytic (f; RA2); Nervine (f; RA2); PAF-Inhibitor (1; X15693713); Panacea (f; RA2); Pectoral (f; DLZ); Purgative (f; RA2); Resolvent (f; RA2); Sedative (f; JFM); Stimulant (f; JFM; MAD; RA2); Stomachic (f; RA2); Styptic (f; RA2); Tonic (f; MAD; RA2); Uterotonic (f; RA2); Vulnerary (f; MAD; RA2).

**Indications:**

Bacteria (f1; HHB; PH2; RA2; X15894143; X8158163; X8302955); Bites (f; PH2); Bleeding (f1; HHB; MAD; MD2; PH2; RA2); Boils (f; RA2); Bronchosis (f; DAV; RA2); Cancer, stomach (f; RA2); *Candida* (1; RA2; X17234373); Catarrh (f; MAD; RA2); Cholera (f; MPB); Colds (f; RA2); Congestion (f; RA2); Constipation (f; JFM); Coughs (f; RA2); Cys-



titosis (f; JFM; MAD; RA2); Diarrhea (f; JFM; PH2; RA2); Digestion (f; RA2); Dysentery (f; JFM; PH2; RA2); Dysmenorrhea (f; DAV; DLZ); Dyspepsia (f; DAV; RA2); Dysuria (f; MAD); Enterosis (f; DAV; RA2); Epistaxis (f; MAD); Fever (f; RA2); Flu (f; RA2); Fungus (1; RA2); Gas (f; RA2); Gastrosis (f; DAV; HHB; RA2); Gonorrhoea (f1; JFM; MAD; X8583798); Hematuria (f; DLZ; MAD); Hemoptysis (f; JFM; HHB); Hemorrhage (f; RA2); Hemorrhoids (f; JFM; MAD); Impotence (f; HHB); Infection (f1; DAV; HHB; JFM; MD2; PH2; RA2; X15894143; X8158163; X8302955); Inflammation (f; DAV; JFM; RA2); Insomnia (f; JFM); Kidney Stones (f; RA2); *Leishmania* (f1; MD2; RA2; X10223942; X10390243); Leucorrhoea (f; JFM; MAD; MPB; RA2); Malaria (f; DAV); Menorrhagia (f; JFM; MAD; MD2); Menstrual Colic (f; RA2); Nausea (f; RA2); Odontosis (f; PH2); Pain (f; MD2); Parasites (f; DLZ); Pleurisy (f; RA2); Pneumonia (f; RA2); Polio (1; RA2; X12165336); Prolapse (f; JFM; MPB; RA2); Pulmonosis (f; MAD); Rheumatism (f; DAV; RA2); Sores (f; PH2; RA2); Sore Throat (f; MD2; RA2); Spasms (f; RA2); Stomachache (f; RA2); Tonsillitis (f; RA2); *Trichomonas* (f; RA2); Ulcers (f; RA2); Urethritis (f; RA2); Urogenitosis (f; PH2; RA2); Uterosis (f; JFM; MAD; MPB; RA2); UTIs (f; HHB; RA2); Vaginosis (f; DAV; RA2); VD (f1; JFM; MAD; RA2; X8583798); Vomiting (f; RA2); Wounds (f1; DLZ; HHB; MAD; PH2; RA2); Yeast (1; RA2; X17234373).

### Dosages:

FNFF = ! Fruits used as a condiment and pepper substitute (RA2). 1 g/cup tea (HHB; HH2); 1 g/cup tea 3–4×/day (PH2); 0.5–2 g 3–4×/day (MAD; PH2); 2–8 g powdered leaf (MAD); 1 cup leaf infusion 2–3×/day (RA2); 2–3 ml 2×/day leaf extract for bleeding and cough (RA2); 1–2 g capsules 2–3×/day as decongestant and to stop vomiting (RA2).

- Amazon Indians sprinkle crushed or powdered leaves onto cuts, ulcers, and wounds, or use the leaf tea infusion as a wash, or heated and pounded leaves as a poultice (RA2).
- Amazon Indians use the leaves as antiseptic, for bleeding, infection, and wounds (RA2).
- Americans consider astringent, diffusive, hemostat, soothing, urinary tonic, and vulnerary, taking leaf infusion for blennorrhagia, cholera, diarrhea, dysentery, dyspepsia, gonorrhoea, hemorrhoids, leucorrhoea, pulmonary or postpartum hemorrhages, and as a birthing aid, using topically as an astringent and styptic on ulcers, wounds, and to stop bleeding (RA2).
- Americans take the leaf tincture as aromatic and bitter stimulant for catarrh of the stomach and genitourinary tract (RA2).
- Brazilians take leaf infusion as antiinflammatory, antispasmodic, carminative, diuretic, stomachic, tonic, and vulnerary, for blennorrhagia, cholera, cystitis, diarrhea, digestive disorders, dysentery, liver problems, pyelitis, wounds, and as uterine tonic to prevent prolapse (MPB; RA2).
- Brazilians use the leaf decoction as astringent, balsamic diuretic, hemostat, resolvent, and stomachic, for blennorrhagia, bronchitis, cough, cystitis, diarrhea, digestive disorders, hematuria, hemorrhage, hemorrhoids, leucorrhoea, liver pain, menorrhagia, skin ulcers, urethritis, UTIs, and wounds, and in baths for prolapsed uterus (RA2).
- Brazilians use the root as a cholagogue and stimulant, for erysipelas and snake bite (RA2).
- Columbians take leaf tincture for headaches and as a stimulant (RA2).
- Colombians use for pulmonary hemorrhages (RA2).
- Colombians use leaf as a diuretic, for constipation, leucorrhoea, kidney stones, pneumonia, and stomachaches, inhaling powdered leaf for nose bleeds (RA2).
- Dominicans use as astringent, diuretic, stimulant, and stomachic (RA2).
- Guatemalans take leaf infusion for gonorrhoea. (RA2).
- Guyanans paste macerated leaves and stems onto sores and wounds as vulnerary (RA2).

- Haitians take leaf decoction for abdominal pain (RA2).
- Haitians use the plant as aphrodisiac and hemostat, for blennorrhagia, dropsy, hepatoses, leucorrhea, rheumatism, skin problems, and sores (RA2).
- Hondurans use it to aid childbirth, also for hemorrhage and menstrual pain (RA2).
- Hondurans take leaf decoction for aches, pains, and as a digestive aid, applying topically as a skin cleanser (RA2).
- Jamaicans take leaf infusion for stomachaches (RA2).
- Karijona Indians use as styptic and vulnerary, sprinkling dried leaf onto wounds (DAV; RA2; SAR).
- Latin Americans use the plant as antiseptic, astringent, diuretic, stimulant, styptic, vulnerary, and for urinary problems (RA2).
- Madre de Dios Peruvians use leaves as antiseptic and hemostat, the decoction for colds, conjunctivitis, and sore throats, the leaf tea for bleeding following childbirth and kidney pains, and apply leaves in honey to leishmanial sores (MD2).
- Mexicans use the plant as astringent, balsamic, diuretic, stimulant, styptic, and for VD (RA2).
- New Guineans take leaf infusion for colds and diarrhea, using topically as antiseptic and to heal wounds (RA2).
- Panamanians take leaf decoction for stomach ails and uterine ulcers; using the leaf decoction (5–6 leaves/l water) as vaginal douche against *Trichomonas*, and the leaf juice on wounds to help heal them (RA2).
- Panamanians use the plant for bronchitis, cancer, decubitus ulcers, pleurisy, pneumonia, respiratory problems, stomach problems, trichomoniasis, ulcers, uterine disorders, vaginitis, and wounds (RA2).
- Peruvians consider antihemorrhagic, carminative, cicatrizant, depurative, diuretic, expectorant, nervine, panacea, stimulant, styptic, tonic, and vulnerary, for abscesses, Blennorrhagia, boils, cholera, colds, constipation, cystitis, diarrhea, dyspepsia, fever, gastrosis, hemorrhoids, infections, hemorrhages, kidney pain and stones, leucorrhea, menstrual colic, neuralgia, rheumatism, skin ulcers, stomach cancer, tonsillitis, ulcers, UTIs, uterine disorders, vaginitis, and vomiting (DAV; MD2; RA2; SAR).
- Peruvians eat the leaves as a “cure-all” (RA2).
- Peruvians take leaf decoction for blennorrhagia, bronchitis, cholera, constipation, cystitis, gonorrhea, kidney stones, leucorrhea, malaria, tonsillitis, and uterine disorders, using topically as disinfectant, hemostat, and vulnerary for conjunctivitis and wounds, using the leaves in baths for enteritis and stomachache, and the leaf juice on herpes ulcers and taking orally for inflammation and sore throat (RA2).
- Peruvians take leaf infusion as antidysenteric, antihemorrhagic, antiinflammatory, antiseptic, astringent, carminative, diuretic, expectorant, stomachic and purgative, for dysentery, hemorrhages, inflammation, malaria, stomach ache and ulcers, tonsillitis, UTIs, and VD (RA2).
- Peruvians take root tincture for rheumatism (RA2).
- Puerto Ricans take leaf infusion for bleeding, diarrhea, dysentery, ulcers, and vomiting, and as a tonic (RA2).
- Shipibo-Conibo take leaf infusion as antiinflammatory, depurative, diuretic, carminative, nervine, and sedative, for diarrhea, fever, gastritis, infections, inflammation, menstrual colic, vomiting, and as a postpartum tonic (RA2).
- South Americans considered as an excellent genitourinary tonic, also using for bronchitis, colds, cystitis, diarrhea, dyspepsia, flu, gas, gastric ulcers, kidney stones, leucorrhea, pleurisy, pneumonia, pulmonary hemorrhages, sore throat, stomachache, stomach cancer, tonsillitis, trichomonas, urethritis, UTIs, vaginitis, VD, and vomiting (RA2).

**Downsides:**

Not covered (AHP). “No health hazards are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). None reported (RA2). As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.

**Extracts:**

Contains alkaloids, benzenoids, flavonoids, heterocycles, monoterpenes, phenylpropanoids, and sesquiterpenes (RA2). Reportedly contains safrol (RA2). Extracts effective against leishmaniasis (RA2; X10223942; X10390243). Benzenoids and chromenes (from the leaves and EO) have shown toxicity towards bacteria and cancer cells (RA2). Leaves and/or leaf or fruit EO antibacterial against Gram-positive and Gram-negative bacteria, active against fungus and yeast, and has shown antiviral activity against the polio virus (RA2). Shoot extract more active against Gram-positive (MIC 1–2 mg/ml) than against Gram-negative bacteria (MIC > 16 mg/ml) (X15894143). Methanolic extract active against *Candida albicans* (MIC of 1.25 mg/ml) (X17234373) and polio virus (X12165336). Leaf tincture active *in vitro* activity against *Neisseria gonorrhoeae* (X8583798).

**SPANISH ELDER (*Piper amalago* L.) +  
PIPERACEAE**

**Illustrations:**

p 30 (AAB)

**Synonyms:**

*Piper berlandieri* C. DC.; *P. lundellii* Trel.; *P. vaccinum* Standl. & Steyerl.; fide (BNA).

**Notes:**

Arvigo and Balick (1993) make several generic comments about medicinal activities of *Piper*, such that I am not sure that they intended all their entries (AAB) to apply specifically to *Piper amalago*. Roig y Mesa (1928) suggests “mataguayo” is *Piper richardianum* C. DC. which has been equated with *P. amalago*, but not in the sense of Linnaeus. Still I have entered his few data below as JTR. When working on the NCI cancer screening program, three species were always mentioned to me as famous cancer remedies in the Latin American markets. They were “calahuala,” “llanten,” and “matico” (Spanish; perhaps “matiku” in Aymara and Quechua). Matico has been applied to more than a dozen species of this complicated genus. Two species, e.g., *P. angustifolium* from Chile and *P. culebranum* from Peru, were cited, with the folk name matico, for cancer by the NCI’s Jonathan Hartwell in his famous book *Plants Used Against Cancer*, now selling for over \$3000 (JLH).

**Common Names:**

Achotlín (Mex.; AVP); Alcotan (Ma.; JFM); Anis des Bois (Haiti; AHL); Anisette (Haiti; AHL); Anisillo (Cr.; Dor.; Ven.; AVP); Anis Marron (Haiti; AHL); Basquiño (Pr.; AVP); Bayuco (Cuba; AVP); Black Joint (Ma.; JFM); Black Jointer (Ma.; JFM); Bois Noyaux (Haiti; AHL); Buttonwood (Bel.; Eng.; AAB; BNA); Caña de Muella (Cr.; AVP); Candelillo (Sal.; AVP); Cañotillo (Pan.; AVP); Chile (Sal.; AVP); Chotillo (Cuba; AVP); Cierio (His.; AHL); Cirio (His.; AHL); Cordoncillo (Bel.; Sal.; Sp.; AAB; AVP; USN); Cordoncillo Chico (Bel.; Sp.; BNA; USN); Cordoncillo de Terra Fria (Col.; AVP); Cordonsillo (Bel.; BNA); Feuilles Noyaux (Haiti; AYL); Feuilles Noyaux Pais (Haiti; AYL); Feuilles Sirop (Haiti; AYL); Gomme Baume (Haiti; AYL); Grand Baume (Haiti; AYL); Guayuyo (Dor.; AVP); Guayuyo Blanco (Dor.; AVP); Gusanillo (Pan.; AVP); Higuillo de Limón (Pr.; AVP); Higuillo Oloroso (Ma.; JFM); Hinojo (Pan.; AVP); Hoja de Jute

(Guat.; AVP); Jamaica Black Pepper (Ma.; JFM); Jambuy (Brazil; AVP); Jointwood (Bwi.; AVP); Jointy Benna (Bwi.; AVP); Juniapre (Guat.; AVP); L'anise Sauvage (Haiti; AHL); Maculán (Mex.; AVP); Malimbé (Guad.; Mart.; AVP); Mataguayo (Cuba; AVP); Matarro (Hon.; AVP); Matico (Peru; AVP); Mático (Brazil; Mex.; AVP); Mocco Mocco (Peru; AVP); Ombligo (Hon.; AVP); Pepper Elder (Bwi.; AVP; USN); Pimentero Amalago (Ma.; JFM); Pimiento do Matto (Brazil; AVP); Platanillo (Cuba; AVP); Queue de Léopard (Haiti; AVP); Queue de Rat (Guad.; Mart.; AVP); Santa María (Cr.; Mex.; AVP); Soot Soot (Bwi.; JTR); Spanish Elder (Bel.; Eng.; AAB; USN); Sumpi (Peru; AVP); Sureau Plantain (Haiti; AHL; AVP). (Nscn).

#### Activities:

Analgesic (f1; AAB); Antiedemic (f; AAB); Antiinflammatory (1; X12065153); Antispasmodic (1; AAB); Aphrodisiac (f; AHL; DAW); Carminative (f; DAW); Diaphoretic (f; JFM; JTR); Digestive (f; AHL; DAW); Diuretic (f; JFM); Emmenagogue (f; AAB; DAW); Febrifuge (f; JFM); Hypertensive (f; AAB); Molluscicide (1; AAB); Sedative (f; AAB); Stimulant (f; DAW); Stomachic (f; JTR); Tonic (f; AHL; DAW); Vasoconstrictor (f; AAB).

#### Indications:

Ache (f; AAB); Amenorrhea (f; AAB; DAW); Arthrosis (f; AAB); Cardiopathy (f; JTR); Colds (f; JFM); Colic (f; DAW); Cramps (f1; AAB; JFM); Dermatitis (f; AAB); Dysmenorrhea (f; AAB; DAW); Edema (f; AAB); Fever (f; JFM); Gas (f; DAW); Gastrosis (f; JFM; JTR); Hangover (f; JTR); Impotence (f; AHL; DAW); Inflammation (1; X12065153); Insomnia (f; AAB); Low Blood Pressure (f; AAB); Pain (f1; AAB); Pregnancy (f; DAW); Pulmonosis (f; JFM); Rheumatism (f; AAB); Scrofula (f; JFM; JTR); Snake Bite (f; AAB); Sores (f; JFM); Stomachache (f; JFM; JTR); Swelling (f; AAB); Toothache (f1; AAB).

#### Dosages:

FNFF = ! Fruits used as substitute for black pepper. Jamaicans make a beverage from the twigs and ginger (JFM).

- Argentinians suggest steeping tea no more than 10 min for chest and stomach ailments, longer to make an antiseptic wash for sores; they take a solar white wine tincture for scrofula (JFM).
- Belizeans chew the root for toothache (AAB).
- Belizeans suggest herbal baths in decoction (2 handful leaves in 2 gal water) for ache, dermatitis, fatigue, insomnia, pain, rheumatism, and swelling (AAB).
- Haitians view leaves as aphrodisiac, using tea as digestive tonic, and for dysmenorrhea (AHL).
- Jamaicans take twig decoction for colds and fever (JFM).

### HIERBA SANTA (*Piper auritum* Kunth) +

#### PIPERACEAE

#### Synonyms:

*Artanthe caladiifolia* Miq.; *A. sanctum* Miq.; *Piper sanctum* (Miq.) Schltld.; *Schilleria aurita* Kunth.; fide (POR).

#### Common Names:

Acoyo (Mex.; JTR); Acullo Cimarrón (Mex.; Sp.; POR); Acuyo (Mex.; Sp.; FAC; POR); Anisillo (Cr.; Sp.; JTR; POR; USN); Bullhoof (Bel.; BNA); Caisimón de Anís (Cuba; JTR); Caña de Oro (Ma.; JFM); Candela de Ixote (Ma.; JFM); Cordoncillo (Nic.; Sp.; JTR; USN); Cordoncillo Grande (Ma.; JFM); Cordoncillo Real (Ma.; JFM); Cowfoot

(Bel.; BNA); Crowfoot (Bel.; BNA); Estrella (Ma.; JFM); False Kava (Eng.; Haw.; POR); Hierba Santa (Eng.; Mex.; Sp.; CR2; POR; USN); Hinojillo (Ma.; JFM); Hoja de Anís (Mex.; Sp.; JFM; POR); Hoja de Estrella (Cr.; JTR); Hoja de Jute (Guat.; JTR); Hoja de Santa Maria (Sp.; FAC); Hoja Santa (Mex.; Sp.; POR; USN); Jaco (Ma.; JFM); Juniapra (Guat.; JTR); Kalamata (Ulwa; ULW); Maculán (Bel.; BNA); Mexican Pepperleaf (Eng.; POR); Mexican Pepper Leaves (Eng.; POR); Méxicanischer Blattpfeffer (Ger.; POR); Mexikói Borslevél (Hun.; POR); Momo (Mex.; JTR); Mona Blanca (Ma.; JFM); Monca Blanca (Cr.; JTR); Mo Xi Ge Hu Jiao (China; POR); Mo Xi Ge Hu Jiao Ye (China; POR); Obeh (Bel.; BNA); Obel (Bel.; BNA); Obet (Ma.; JFM); Root Beer Plant (Eng.; USN); Sacred Pepper (Eng.; POR); Santa María (Nic.; Sp.; JTR; USN); Santilla de Comer (Mex.; Sp.; POR); Shma Culan (Bel.; BNA); Vera Cruz Pepper (Eng.; POR; USN); Xaclipur (Maya; JFM); Xcakulam (Maya; JFM); Xmacolan (Maya; JFM); Yerba Santa (Mex; Sp.; POR).

### Activities:

Alpha-2-Adrenergic-Agonist (1; TRA); Analgesic (f; JTR; TRA); Anesthetic (f; JFM); Anti-histaminic (1; RCP6:12); Antiinflammatory (f; JFM); Antiseptic (1; RCP6:12); Antispasmodic (1; RCP6:12); Carcinogenic (1; TRA); Digestive (f; JFM); Diuretic (f; JFM; JTR); Emollient (f; JFM; JTR); Hallucinogenic (1; TRA); Hypotensive (1; TRA); Mutagenic (f; TRA); Myorelaxant (1; RCP6:12); Psychotropic (1; TRA); Revulsive (f; JFM); Spasmogenic (f; TRA); Stimulant (f; JFM); Stomachic (f; JFM); Sudorific (f; JFM); Toxic (1; TRA); Uterotonic (1; TRA); Vasodilator (1; RCP6:12; TRA).

### Indications:

Allergies (1; RCP6:12); Angina (f; JFM); Arthrosis (f; JTR); Colic (f; JFM); Cramps (1; RCP6:12); Dyspepsia (1; RCP6:12); Erysipelas (f; JFM); Fever (f; JFM; JTR); Gonorrhoea (f; JFM); Gout (f; JFM; JTR); Headache (f1; JFM; JTR; TRA); High Blood Pressure (1; TRA); Infection (1; RCP6:12); Inflammation (f; JFM); Pain (f1; JFM; JTR; TRA); Rheumatism (f; JTR); Snake Bite (f; JTR); Sores (f; JTR); VD (f; JFM); Wounds (f; JFM).

### Dosages:

FNFF = ! Leaves used to season wild game, soups, etc. Guatemalans season snails with leaves. Hondurans may cook and eat tender young leaves. Mexicans use to season tamales. Panamanians reportedly feed the leaves to fish which ultimately take on the flavor (FAC; JFM; JTR). Infusion of ½ leaf taken after meal as stomachic (JFM); 1 leaf in sweetened water (180 cc) (JFM); 15–30 drops tincture (10 g leaf:150 cc alcohol) every 3 hr (JFM).

- Costa Ricans apply toasted leaves to the forehead for headache (JTR).
- Cubans use the leaves as an emollient (JTR).
- Mexicans take tea of ½ leaf after meals as stomachic (JFM).

### Downsides:

Not covered (AHP; EFS; IED; KOM; PH2). Very rich in the carcinogen safrole. Safrole and elemicin may exert hallucinogenic a/o psychotropic activities (TRA). As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

### Extracts:

At 0.1 ml/kg intravenously in dogs, the aqueous extract is hypotensive (TRA). The 95% ethanolic extract at 0.33 ml/l is spasmogenic and uterotonic *in vitro* (TRA). Still at 1%, the EO is more antispasmodic for intestinal smooth muscle than papaverine. At 3 ml/l, the aqueous extracts have a vasodilator effect on lab rats (TRA). Myrcene has antinociceptive activities. As an alpha-2-adrenergic agonist, myrcene affects arterial blood pressure (TRA).

**PAREGORIC PIPER (*Piper callosum* Ruiz & Pav.) ++****PIPERACEAE****Notes:**

When I asked my Peruvian shaman for “guayusa” (expecting a caffeinated species of *Ilex*), he brought instead a local “guayusa,” *Piper callosum*. Its aroma immediately told me it contained eugenol, which certainly rationalizes the three uses he added to the indications below (JAD). I could add dozens more activities, those generated by eugenol. I have changed the Brazilian “elixir paregorico” to the contrived English name, “paregoric piper.” It was ten years between when Antonio introduced the plant to the ReNuPeRu Garden on the Rio Sucusari, tributary of the Napo, in Loreto, Peru, and when Rodolfo Vazquez identified it as *Piper callosum*.

**Common Names:**

Canela Huayusa (Peru; SOU); Elixir Paregorico (Brazil; MPB); Huayusa de los Banyos (Peru; RAR); Huayusa Macho (Peru; SOU); Oleo Eletrico (Brazil; MPB); Ventre Livre (Brazil; MPB).

**Activities:**

Analgesic (f1; FNF; MPB); Stimulant (f1; FNF; RAR).

**Indications:**

Dentition (f; FNF; JAD); Gastrosis (f; MPB); Myalgia (f1; FNF; MPB); Pain (f1; FNF; MPB); Rheumatism (f; MPB); Stomachache (f; MPB); Toothache (f1; FNF; JAD).

**Dosages:**

FNFF = ?

**LIZARD'S TAIL PEPPER (*Piper peltatum* L.) ++****PIPERACEAE****Illustrations:**

fig 186 (DAV)

**Synonyms:**

*Heckeria peltata* Kunth; *Peperomia peltatum* Dietr.; *Pothomorphe peltata* (L.) Miq.

**Notes:**

Shares many names and activities with *Piper umbellata* which lacks the peltate petiole, *P. umbellata*'s petiole being inserted in the cleft of the cordate leaf (JAD; JFM). Roig y Mesa (1945), however, aggregated them (as JTR). The older and blinder I get the more I think he's right.

**Common Names:**

Ambaibillo de Hojas Redondos (Bol.; DLZ); Anijsblad (Sur.; AVP); Ayapalatele (Wayäpi; GMJ); Baquinya (Ma.; JFM); Basquinya (Pr.; Sp.; AVP); Basquinya Cerrada (Pr.; Sp.; AVP); Bois Anisette (Guad.; Mart.; AVP); Broquelejo (Dor.; AVP); Caapeba (Brazil; GMJ; MPB); Caapeba do Norte (Brazil; JFM; MPB); Caapebal (Por.; AVP); Caa Peua (Brazil; JFM; MPB); Caisimon (Cuba; AVP; JFM); Cataje (Brazil; JFM; MPB); Chishen Pei (Shipibo/Conibo; MD2); Chut Ik (Bel.; BNA); Collet a Dame (Haiti; AVP; JFM); Collet da Notre Dame (Haiti; AVP); Colt'sfoot (Jam.; AVP); Cordoncillo (Sp.; USN); Cordoncillo de Hoja Grande (Ma.; JFM); Cow-foot (Bel.; BNA); Duburibanato (Ven.; RAR); Estrella (Cr.; AVP); Feuille a Coeur (Haiti; AVP); Feuille Bomb (Creole; Guy.; GMJ); Gedebong (Java; FAC); Grand Feuille Bomb (Creole; Guy.;

GMJ); Herbe a mal d'Estomac (Guad.; Mart.; AVP); Herbe Collet (Guad.; Haiti; Mart.; AVP); Inojo (Pan.; IED); Kui'o-Shaja-'ai (Ese'eja; MD2); Kute Ik (Bel.; BNA); Lizard's Tail Pepper (Eng.; FAC); Malvarisco (Brazil; MPB); Mano de Zopilote (Mex.; AVP; JFM); Matico (Ma.; JFM); Monkey's Hand (Eng.; AVP; JFM); Ombligo (Ma.; JFM); Papel Hygenico (Pan.; IED); Pariparoba (Brazil; MPB); Patza (Cuna; IED); Pekan (Amahuaca; MD2); Poivier en Bouclier (Haiti; AVP); Puy Gopna Sure (Piro; Yine; MD2; RAR); Puyo Nshi (Piro; Yine; MD2; RAR); San Diego (Bel.; BNA); Santa Maria (Bel.; Cr.; Ecu.; Pan.; Peru; Sp.; AVP; LOR; MD2; MDD; RAR; USN); Santiago (Bel.; BNA); Santilla de Culebra (Ma.; JFM); Shirimowito (Matsigenka; MD2); Sure (Piro; Yine; MD2); Shu Tu Ik (Bel.; BNA); Swietie Anesie (Ma.; JFM); Swietie Anoisie Wiwire (Sur.; AVP); Switi Anesie (Ma.; JFM); Tapeba (Ma.; JFM); Unya de Caballo (Col.; Pan.; AVP); Utiuti (Palikur; GMJ); Utuit (Bel.; BNA).

### Activities:

Analgesic (f; DAV); Antiedemic (f; DAV; MD2); AntiHIV (1; 60P); Antiinflammatory (f1; DAV; MD2; 60P); Antioxidant (1; 60P); Antiradicular (1; 60P); Antirheumatic (f; 60P); Antiseptic (1; 60P); Antitumor (f1; JFM; 60P); Bactericide (1; 60P); Cytotoxic (1; 60P); Diuretic (f; RAR); Emetic (f; RAR); Emollient (f; JFM); Febrifuge (f; MD2; RAR); Insectifuge (f; DAV); Litholytic (f; JFM); Pediculicide (f; DAV); Piscicide (f; RAR); Resolvent (f; DLZ); Stomachic (f; JFM); Sudorific (f; GMJ); Topoisomerase-Inhibitor (1; 60P); Vermifuge (f; MPB); Vulnerary (f; MPB).

### Indications:

Abscesses (f; DAV); Adenopathy (f; JFM); Arthrosis (f1; FNF; 60P); Bacteria (1; 60P); Bleenor-rhagia (f; DAV); Burns (f; MPB); Cancer (f1; JFM; 60P); Childbirth (f; IED); Colds (f; DAV); Colic (f; MD2); Conjunctivitis (f; MD2); Dermatitis (f; JFM; MD2); Edema (f; DAV; JFM; MD2); Erysipelas (f; DAV); Fever (f; MD2; RAR); Gastrosis (f; RAR); Gonorrhea (f; JFM; MPB); Headache (f; GMJ; MD2); Hepatitis (f; DAV); Hernia (f; DAV); HIV (1; 60P); Infection (1; 60P); Inflammation (f1; DAV; JFM; MD2; 60P); Itch (f; MD2); Kidney Stones (f; JFM); *Leishmania* (f; DAV); Lice (f; DAV); Nephrosis (f; JFM); Neuralgia (f; GMJ); Orchitis (f; JFM); Pain (f; DAV; RAR; 60P); Pediculosis (f; DAV); Pulmonitis (f; MD2); Rheumatism (f1; FNF; 60P); Scrofula (f; JFM); Scurvy (f; JFM); Snake Bite (1; X15896371); Sores (f; DAV); *Staphylococcus* (1; 60P); Stomach-ache (f; RAR); Stones (f; JFM); Swelling (f; DAV; MD2); Syphilis (f; JFM); Toothache (f; DAV; MD2); Urethritis (f; DAV); VD (f; MPB); Worms (f; MPB); Wounds (f; MPB).

### Dosages:

FNFF = ! Javans cook young leaves with rice dishes, use the leaves to wrap fish for roasting, and the ripe fruits are said to be eaten by children (FAC). 8 leaves decocted in 1 liter water for lymphatic inflammation (JFM)

- Bayano Cuna rub the leaves on body as pediculicide (IED).
- Bolivians poultice the leaves on syphilitic swellings (JFM).
- Darien Blacks wrapped the large heart-shaped leaves around the head for headache (IED).
- Ese'eja use leaves to treat cutaneous ulcers (60P).
- Madre de Dios Peruvians apply heated leaves to fever, headaches, and wounds (MD2).
- Peruvians take leaf tea for colic, adding alcohol for inflamed chest (MD2).
- Surinamese use leaf tea for bellyache and cold (JFM).

### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.

### Extracts:

Extract inhibits enzymatic activity of myotoxin I, a phospholipase A(2) from *Bothrops asper* (X15896371).

**CORDONCILLO (*Piper umbellatum* L.) +****PIPERACEAE****Synonyms:**

*Heckeria umbellata* Kunth; *Pothomorphe umbellata* (L.) Miq.; fide (POR; USN).

**Common Names:**

Acuyo Cimarrón (Mex.; Sp.; POR); Acoyo (Mex.; Sp.; POR); Amonguma (Ivo.; UPW); Amumuaha (Ghana; UPW); Baquiña (Ma.; JFM); Basquiña (Ma.; JFM); Bebu (Nig.; UPW); Boombo (Java; FAC); Broquelejo (Dor.; AHL; JFM); Bumbo (Java; IHB); Bumbu (Java; IHB); Caapeba (Brazil; MPB); Caisemón (Cuba; JFM); Caisimón (Cuba; JFM); Capeba (Brazil; MPB); Chishen Pei (Shipibo/Conibo; MD2); Collier de Notre Dame (Fr.; JFM); Colt's Foot (Ma.; JFM); Cordoncillo (Mex.; Sp.; POR; USN); Cordoncillo Anisillo (Ma.; JFM); Cow Foot Leaf (Eng.; UPW); Datsatsan (Aguaruna; Peru; SOU); Dombo (Java; IHB); Feuilles à Coeur (Haiti; AHL; JFM); Gofugafa (Sierra Leone; UPW); Guaxima (Ma.; JFM); Gufgafa (Gui.; UPW); Hierba Santa (Mex.; Sp.; POR); Hierba Santa Loca (Mex.; Sp.; POR); Jute (Ma.; JAD); Kui'o-Shaja-'ai (Ese'eja; MD2); Lëmba (Malaya; IHB); Lençol de Santa Bárbara (Brazil; MPB); L'herbe a Mal de Estomac (Fr.; JFM); Lomba (Molucca; IHB); Malvaísco (Brazil; MPB); Mano de Zopilote (Sp.; JFM); Obbel (Ma.; JFM); Obet (Ma.; JFM); Pariparoba (Brazil; MPB); Pauparoba (Brazil; JFM; JTR); Pekan (Amahuaca; MD2); Pimienta de Flores en Ombela (Ma.; JFM); Puy Gopna (Piro; Yine; MD2); Puyonshi (Piro; Yine; MD2); Santa Maria (Mex.; Sp.; JFM; MD2; POR); Santa Maria Grande (Ma.; JFM); Santilla de Culebra (Ma.; JFM); Sëgumbar Urat (Malaya; FAC; IHB); Shirimowito (Matsigenka; MD2); Sure (Piro; Yine; MD2); Tombo (Java; IHB); Uchëng Uchëngan (Java; IHB); Uña de Caballo (Ma.; JFM); Vaqueña (Ma.; JFM); Vaqueña Abierta (Ma.; JFM); Yerba de Collar (Ma.; JFM); Yerba Santa Maria (Ma.; JFM). (Nscn).

**Activities:**

Analgesic (1; UPW; X1974844); Antiabortive (f; UPW); Antiedemic (f; MD2); Antiemetic (f; DAW; HDN); Antiinflammatory (f; MD2); Antioxidant (1; MPB; X16104805); Antiseptic (f; UPW); Aphrodisiac (f; HDN); Cholagogue (f; JTR); Choloretic (f; JFM); Cicatrizant (f; JTR); Curare (f; DAW; HDN); Decongestant (f; JFM; JTR); Deobstruent (f; JTR); Digestive (f; JTR); Diuretic (f; AHL; DAW; JTR); Emmenagogue (f; JFM; JTR; UPW); Emollient (f; JTR); Febrifuge (f1; MD2; X1974844); Hemostat (f; UPW); Lactagogue (f; DAW; HDN); Laxative (f; DAW); Plasmodicide (1; MPB); Purgative (f; DAW); Repellant (f; DAW); Rubefacient (f; UPW); Sedative (1; X1974844); Tranquilizer (f; UPW); Vermifuge (f; DAW; UPW); Vulnerary (f; JFM; UPW).

**Indications:**

Abscesses (f; AHL; HDN); Ague (f; DAW; IHB); Amenorrhea (f; JTR; UPW); Anasarca (f; DAW; HDN); Ascites (f; DAW; HDN); Bleeding (f; UPW); Bleorrhoea (f; UPW); Boils (f; DAW); Bruises (f; MPB); Bubo (f; UPW); Burns (f; HDN; JFM; JTR); Cardiopathy (f; UPW); Childbirth (f; HDN); Circumcision (f; HDN); Colic (f; DAW; HDN; MD2); Congestion (f; JFM; JTR); Conjunctivitis (f; HDN; MD2); Constipation (f; DAW; JTR); Costosis (f; DAW); Coughs (f; DAW; HDN; IHB); Deformity (f; HDN); Dermatitis (f; HDN; MD2); Diarrhea (f; HDN; UPW); Dislocation (f; HDN); Dysentery (f; DAW; UPW); Dysmenorrhea (f; JFM); Dyspepsia (f; JFM); Dysuria (f; HDN); Earache (f; UPW); Edema (f; JFM; HDN; MD2); Elephantiasis (f; HDN); Enterosis (f; HDN; UPW); Epilepsy (f; JTR; MPB); Fever (f1; MD2; X1974844); Filariasis (f; MPB); Fit (f; UPW); Gastrosis (f; DAW; JFM; JTR; UPW); German Measles (f; HDN); Gonorrhoea (f; AHL; DAW; HDN); Headache (f; HDN; MD2); Hematuria (f; HDN); Hemorrhoids (f; UPW); Hepatitis (f; JTR; MPB); Hernia (f; UPW); Impotence (f; HDN); Induration (f; JFM); Infection (f; UPW); Inflammation (f; JLH; MD2; UPW); Insanity



(f; HDN); Insomnia (1; UPW; X1974844); Itch (f; MD2); Jaundice (f; JFM); Leukorrhea (f; JFM); Malaria (f1; MPB; UPW); Mastosis (f; JFM); Measles (f; HDN); Migraine (f; HDN; UPW); Miscarriage (f; HDN); Nephrosis (f; DAW; HDN); Oliguria (f; AHL); Pain (f1; HDN; UPW; X1974844); Parasites (f; HDN); Pinworm (f; HDN); Pleurisy (f; JFM); Proctosis (f; HDN); Prolapse (f; HDN); Pulmonosis (f; JFM; MD2; UPW); Respirosis (f; HDN); Rheumatism (f; DAW; HDN); Scurvy (f; DAW); Snake Bite (1; X15896371); Splenosis (f; MPB); Sprains (f; HDN; UPW); Stiffness (f; UPW); Stomachache (f; HDN); Swelling (f; DAW; HDN; JTR; MD2; MPB); Syphilis (f; HDN; JFM); Tapeworm (f; DAW; UPW); Threadworm (f; HDN); Toothache (f; DAW; HDN; MD2); Tumors (f; DAW; HDN; JLH); Urogenitosis (f; AHL; UPW); Uterosis (f; JFM); VD (f; DAW; JTR); Whitlow (f; DAW; UPW); Worms (f; DAW; HDN; UPW); Wounds (f; DAW; HDN; JFM; JTR; UPW).

### Dosages:

FNFF = ! Leaves eaten as vegetable or spice with fish dishes, or added to rice. Bark used as spice. Ripe fruits eaten (FAC).

- Argentinians mix seeds with egg whites for pulmonary congestion and pleurisy (JFM).
- Argentinians mix seeds with fat and apply to tumors (JLH).
- Brazilians apply roots to inflammatory tumors (JLH).
- Brazilians use for edema, epilepsy, erysipelas, fever, filariasis, hepatosis, inflammation, malaria, splenosis, swellings, and uterine disorders (JFM; MPB).
- Congolese apply leaf juice to buboes and sores, taking orally for hernia and GI pain (UPW).
- Cubans use leaves to cauterize wounds (JFM).
- Dominicans suggest the plant, like *P. peltatum*, is good for abscesses, burns, gonorrhoea, oliguria, and urethritis (AHL).
- Guatemalans take decoction of the snail called “jute” with the herb called “jute” to stimulate flow of milk (JFM).
- Ivory Coastals rub pulped leaves on arthritic, intercostal, and kidney pains, applying leaf sap to earache, hemorrhoids, and other pains (UPW).
- Jamaicans apply leaves to headache, taking also for colds (JFM).
- Javans and Moluccans apply leaves to bruises, distended stomachs, and other swellings (IHB).
- Madre de Dios Peruvians apply heated leaves to fever, headaches, and wounds (MD2).
- Peruvians suggest the sudorific plant for fever and jaundice (RAR).
- Peruvians take leaf tea for colic, adding alcohol for inflamed chest (MD2).

### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

### Extracts:

Extract inhibits enzymatic activity of myotoxin I, a phospholipase A(2) from *Bothrops asper* (X15896371). Interperitoneal injection in rats of aqueous plant extract induced ataxia and reduced watchfulness, lasting about 48 hr, along with decrease in temperature and spontaneous motor activity, and an increase of analgesic activity (X1974844).

## JAMAICA DOGWOOD (*Piscidia piscipula* (L.) Sarg.) +

### FABACEAE

### Illustrations:

p 514 (AUS)

**Synonyms:**

*Erythrina piscipula* L. (basionym); *Ichthyomethia piscipula* (L.) Hitchc. ex Sarg.; *Piscidia communis* (S. F. Blake) Harms; *P. erythrina* L.; fide (USN).

**Notes:**

Some Steinmetz entries (EFS) may apply to “mulungu” (*Erythrina corallodendron*). Morton has praise of the dogwood as a narcotic, “The active properties seem to be related to those of opium or *Cannabis sativa*, but the latter is 17 times more potent” (JFM).

**Common Names:**

Arbol del Coral (Sp.; EFS); Barbasco (Sp.; AUS); Barbasco Amarillo (Col.; Ven.; AUS); Barbasco Jancu (Ma.; JFM); Black Mahoe (Trin.; AUS); Bois de Chiens (Fwi.; JTR); Bois Inivrent (Fwi.; JTR); Bois Ivrant (Fr.; Haiti; EFS); Borracho (Ma.; JFM); Cachimbo (Cr.; AUS); Cahuinga (Mex.; AUS); Cahuirica (Mex.; AUS); Candelón (Cuba; AUS; JTR); Chaperno (Guat.; AUS); Chiihol (Aztec; AUS); Chijol (Mex.; Nahuatl; AUS; JTR); Cocuile (Mex.; AUS); Cocuite (Mex.; AUS; JTR); Colango Naranga (Brazil; JTR); Colorin de Peces (Mex.; AUS); Coralshrub (Eng.; EFS); Corniola (It.; EFS); Corniro (Sp.; EFS); Crête de Coq (Fr.; EFS); Cuchiván (Ven.; AUS); Dogwood (Bel.; Jam.; Pr.; AUS; JTR); Erythrine de la Jamaïque (Fr.; EFS); Fischfanger (Ger.; MAD; USN); Fischrinde (Ger.; EFS); Fish Poison (Fla.; JTR); Fish-Poison Tree (Eng.; USN); Flor de Papagallo (Mex.; AUS; JTR); Frijolillo (Mex.; AUS); Guamá Candelón (Cuba; AUS; JTR); Guamá de Costa (Cuba; AUS; JTR); Guamá Hedionda (Cuba; JTR); Haabi (Maya; AUS); Habi (Mex.; JTR); Habim (Bel.; Maya; BNA); Iguano Blossom (Bel.; BNA); Jabine (Maya; AUS); Jamaica Dogwood (Eng.; CR2; USN); Jamaika Hundsholz (Dwi.; AUS); Jamcui (Maya; JFM); Jamguij (Maya; AUS); Javin (Maya; Mex.; AUS; JTR); Jebe (Maya; AUS); Jubi (Maya; AUS); K'anaw Te' (Huastec; AUS); Koraalstruik (Dutch; EFS); Korallenbaum (Ger.; EFS); Mata Pescado (Ma.; JFM); Matapiojo (Sp.; AUS); Maybush (Bel.; AUS); Mort a Poissons (Fwi.; AUS; JTR); Palo de Gusano (Bel.; AUS); Palo de Zope (Guat.; AUS); Palo Emborrachador (Ven.; AUS; JTR); Palo Zope (Ma.; JFM); Peonia (Ma.; JFM); Stinkwood (Vi.; AUS); Tatzungo (Mex.; AUS); Tiaxib (Bel.; Guat.; AUS); Tiazab (Bel.; Guat.; AUS); Tuncuy (Mex.; AUS); Tzijol (Mex.; AUS); Ventura (Pr.; JFM; JTR); Wormwood (Bel.; AUS; BNA); Zatzumbo (Mex.; AUS); Zopilocuave (Nahuatl; Sal.; AUS).

**Activities:**

Analgesic (f1; AUS; CRC; EFS; JFM; JTR); Anticancer (1; CRC); Antidermatophytic (1; X2056755); Antiinflammatory (f; AUS); Antileukemic (1; CRC); Antispasmodic (1; CRC; JFM; PHR; PH2); Antiviral (1; AAB); Anxiolytic (f; PHR); Astringent (f1; AAB); Cardiotonic (f; EFS); CNS-Paralytic (1; MAD); Curare (f; CRC); Diaphoretic (f; CRC; JFM; MAD); Diuretic (f; CRC; EFS); Emetic (f; CRC); Fungicide (1; AAB; AUS); Hypnotic (f; CRC); Insecticide (1; CRC); Molluscicide (1; AAB); Mydriatic (f; CRC); Narcotic (f1; CRC; EFS; IED; MAD); Piscicide (1; EFS; FNF); Sedative (f1; EFS; IED; JFM; PHR; PH2); Sialagogue (f; MAX); Soporific (1; IED); Sudorific (f; CRC); Uterorelaxant (1; AAB).

**Indications:**

Alcoholism (f; CRC; JFM); Anxiety (f; PHR; PH2); Asthma (f; CRC); Backache (f; CRC; JFM); Bleeding (f; AAB); Bronchosis (f; CRC; JFM); Cancer (1; CRC); Cancer, epidermis (1; CRC); Cancer, nose (1; CRC); Cancer, pharynx (1; CRC); Childbirth (f; JFM); Colds (f; CRC; JFM); Coughs (f; CRC; JFM); Cramps (1; CRC; JFM; PHR; PH2); Delirium (f; CRC); Dermatophyte (1; X2056755); Dermatitis (f1; AAB; CRC; JFM; X2056755); Diarrhea (f; AAB); Dysentery (f; AAB); Dysmenorrhea (f; AAB; CRC; JFM); Dysuria (f; MAD); Enteralgia (f; JFM); Enterosis (f; AUS); Fear (f; PH2); Flu (1; AAB; AUS); Fracture (f; JFM; MAX); Fungus

(1; AAB; AUS); Gingivitis (f; AAB); Headache (f; CRC; JFM); Herpes (1; AAB); Hysteria (f; CRC; JFM); Infection (1; AAB; AUS); Inflammation (f; AUS); Insomnia (f1; CRC; EFS; IED; JFM; PHR; PH2); Leukemia (1; CRC); Mange (f; CRC; JFM); Migraine (1; CRC; MAD); Mycosis (1; AUS); Nervousness (f; PH2); Neuralgia (1; AUS; CRC; JFM); Pain (f1; AUS; CRC; EFS; JFM; JTR); Pertussis (f; CRC; JFM); Polio (1; AAB; AUS); Rashes (f; AAB); Rhinosis (f; CRC); Spasms (1; CRC; JFM; PHR; PH2); Sprains (f; JFM); Toothache (f; CRC; JFM; JTR; MAD); Tuberculosis (f; CRC); VD (f; JTR); Viruses (1; AAB; TRA); Wounds (f; AAB; CRC; JFM).

#### Dosages:

FNFF = X. 1–2 g root bark, or in tea, 3×/day (CAN); 1–2 ml liquid root bark extract (1:1 in 30% ethanol) 3×/day (CAN); 2–8 ml root bark tincture (BPC; CAN); 2–5 g liquid extract (MAD).

- Bahamans bind crushed leaves around the head inhaling emanations for headache (JFM).
- Belizeans boil 5 × 5 cm square of bark in 3 cups water as astringent mouthwash (AAB).
- Cubans suggest the tincture on cotton for toothache (JTR).
- Cubans take root decoction for VD, and massage pain in throat or waist with the bark (JTR).
- Latinos boil 9 leaves with sugar water to make a cough syrup (JFM).

#### Downsides:

Not covered AHP. “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). Newall, Anderson, and Philipson (1996) caution that high doses can cause irritation, numbness, salivation and tremors. Because of irritant and uterine activity, *in vitro* and *in vivo*, its use in pregnancy and lactation is to be avoided. Said to be toxic parenterally but non-toxic orally (to 90,000 mg/kg in rats and rabbits). The alkaloid piscidin is poisonous or narcotic to man, but in small doses is sedative and soporific. May potentiate pharmaceutical sedatives (CAN). As of July 2007, the FDA Poisonous Plant Database listed 19 titles alluding to toxicity of this species.

#### Extracts:

Pharmacologically producing antiinflammatory, antipyretic, antispasmodic (= papaverine), antitussive, cannabinoid, and sedative activity.

## SALADE D'EAU (*Pistia stratiotes* L.) +

### ARACEAE

#### Common Names:

Alface-d'Água (Brazil; Por.; USN); Flor-d'Água (Brazil; Por.; USN); Huama (Peru; DAV); Laitue d'Eau (Fr.; USN); Lechuga Cimarrona (Peru; DAV); Lechuga de Agua (Sp.; AVP; USN); Lechuguilla de Agua (Sp.; AHL); Nile-Cabbage (Eng.; USN); Patico (Sp.; AHL); Repolho-d'Água (Brazil; Por.; USN); Tropical-Duckweed (Eng.; USN); Wassersalat (Ger.; USN); Water-Cabbage (Eng.; USN); Water Lettuce (Eng.; AVP; USN); Waterslaai (Afrikaans; USN).

#### Activities:

Cytotoxic (1; X11939171); Demulcent (f; JFM); Emollient (f; JFM); Laxative (f; JFM).

#### Indications:

Asthma (f; JFM); Constipation (f; JFM); Coughs (f; JFM); Diabetes (f; JFM); Diarrhea (f; JFM); Dysentery (f; JFM); Dyspepsia (f; JFM); Edema (f; JFM); Gastrosis (f; JFM); Hemoptysis (f; JFM); Hemorrhoids (f; JFM); Inflammation (f; JFM); Mycosis (f; DAV); Sores (f;

JFM); Swelling (f; JFM); Syphilis (f; JFM); Tuberculosis (f; IED); VD (f; JFM); Warts (f; DAV).

**Dosages:**

FNFF = ! Parboiled leaves sometimes added to soups. Ash of burned plants used in lieu of salt (FAC).

**Downsides:**

Oxalate crystals may be problematic. As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**PLANTAIN (*Plantago major* L.) ++**

**PLANTAGINACEAE**

**Illustrations:**

f 188 (DAV); pl 52B (GHA)

**Notes:**

In the Afro-Brazilian Candomblé religion, this herb is associated with the deity Yemanjá (VOD, quoting Voeks, 1997).

**Common Names:**

Aderkkraut (Ger.; KAB); Antén (Sp.; POR); Arnoglosson (Greek; KAB); Babka (Pol.; KAB); Babka Zwyczajna (Pol.; POR); Ballenfeatsch (Ger.; KAB); Ballenkraut (Ger.; KAB); Barang (Iran; KAB); Barhang (Bom.; Iran; Urdu; KAB; NAD); Barhanj (GHA); Baritang (Kharan; KAB); Bartang (India; Iran; Uru; EFS; NAD); Barthang (Iran; KAB); Bizbula (Malta; KAB); Breitwegerrich (Ger.; EFS; POR; USN); Broad-Leaf Plantain (Eng.; Ocn.; AH2; POR; USN); Broad Leaved Plantain (Eng.; RAR); Broad Plantain (Eng.; USN); Buyuk Sinirliot (Tur.; EFS); Cancerina (Sp.; POR); Cart-Track Plant (Eng.; NAD); Cay Phu Di (Annam; KAB); Centonervi (It.; EFS); Chea Chean Chor (Malaya; KAB); Ch'e Ch'ien (China; KAB); Ch'e Ch'ien Ts'ai (China; TAN); Che Qian Cao (Pin.; AH2); Che Qian Zi (Pin.; AH2); Che Ts'in (Canton; KAB); Chirazyu (Que.; DLZ); Cinquenervi (It.; EFS); Common Plantain (Eng.; POR; USN); Da Che Qian (Pin.; AH2); Diantén (Sp.; POR); Dreiadern (Ger.; KAB); Dressig (Ger.; KAB); Duong Dao (Annam; KAB); Englishman's Foot (Eng.; EAS; KAB); English Plantain (Eng.; AVP; JFM); Fuenfederkraut (Ger.; KAB); Ghuzbe (Pun.; Pushtu; DEP; KAB); Grand Plantain (Fr.; POR; USN); Greater Plantain (Eng.; Ocn.; AH2; JFM; POR; USN); Groblad (Swe.; KAB); Grodb'ad (Swe.; AVP); Groote Weegbree (Dutch; KAB); Groot Weegbree (Afr.; KAB); Gros Plantain (Réunion); Grosser Wegerrich (Ger.; EFS); Grote Weegbree (Dutch; EFS); Gul (Kas.; Pun.; KAB); Gwo Bannann (Creole; Haiti; VOD); Heudieb (Ger.; KAB); Huinca Llanten (Sp.; JFM); Hundauge (Ger.; KAB); Hundrippe (Ger.; KAB); Indlebekatekwane (Zulu; KAB); Isbagol (Nepal; SUW); Isbagul (Kas.; MKK); Isafghol (Kas.; KAB); Kamarsh (Iran; KAB); Kanash (Iran; AVP); Karet (Pun.; DEP; KAB); Kasratelazlaa (Arab.; DEP; KAB); Lahuriya (Hindi; EFS; NAD); Lantana-Major (Brazil; USN); Lante (Ma.; JFM); Lantén (Ma.; Sp.; JFM; POR); Lantin (Tag.; KAB); Large Plantain (Eng.; EFS); Large Waybread (Eng.; EFS); Lasana el Hamala (Arab.; EFS; NAD); Limba Oaei (Rom.; KAB); Lisan al Kalb (Arab.; GHA); Lisanelhamal (Arab.; KAB); Lisan el Hamal el Kepir (Arab.; AVP); Llantai (Peru; EGG; RAR); Llantén (Pan.; Peru; Pi.; Sal.; Sp.; AUS; KAB; LOR; MPG; POR; WBB; USN); Llantén Comun (Sp.; POR; USN); Llantén de Hoja Ancha (Sp.; JFM; USN); Llantén Macho (Bol.; Peru; DLZ; EGG; RAR); Llantén Major (Sp.; POR; USN); Llantén Mayor (Sp.; AVP; EFS; EGG; POR); Lubka (Pol.; AVP); Luhuriya (Hindi; Kum.; DEP; KAB); Ma de (Annam; KAB); Matich (Annam;

KAB); Mo Noi (Thai; POR); Nguu Thiet (Annam; KAB); Partenblatt (Ger.; KAB); Patlagina (Rom.; KAB); Petacciola Grande (It.; EFS); Phak Kat Nam (Thai; POR); Piantagine Magiore (It.; KAB); Piantagine (It.; AUS); Plantage de Fulla Ampla (Cat.; KAB); Plantage de Fulla Grossa (Cat.; KAB); Plantaggini (It.; EFS); Plantain (Creole; Eng.; Fr.; Haiti; Scn.; AH2; AVP; GMJ; POR; USN; VOD); Plantain a Bouquet (Fr.; KAB); Plantain a Larges Feuilles (Fr.; KAB); Plantain Comun (Fr.; KAB); Plantain des Oiseaux (Fr.; KAB); Plantain Grann Fèy (Creole; Haiti; VOD); Plantain Majeur (Fr.; POR; USN); Plantain Ribgrass (Eng.; KAB); Plantain Ribwort (Eng.; KAB); Plantayne (Eng.; AUS); Planten (Haiti; Ma.; JFM; TRA); Planten Mayor (Sp.; AVP); Platvoet (Afr.; KAB); Popushnik (Rus.; AVP; KAB); Poputnik (Rus.; KAB); Ractzi (Ma.; JFM); Rau Ma De (Annam; KAB); Ribwort (Eng.; VOD); Rippenkraut (Ger.; KAB); Ripple Grass (Eng.; EFS); Rippleseed Plantain (Eng.; MZN); Sabaataslaa (Arab.; DEP); Sahaatazlaa (Arab.; KAB); Sejumbok (Malaya; EFS); Siete Venas Anchas (Sp.; JFM); Socchicam (Ma.; JFM); Spierkraut (Ger.; KAB); Spitzfeder (Ger.; KAB); Tanchagem Maior (Por.; EFS; POR; USN); Tensagem (Por.; AVP); Teufelshuetchen (Ger.; KAB); Tharam (Kas.; MKK); Tha Ram (Tibet; TIB); To Obaco (Japan; TAN); Torraja (Ma.; JFM); Transagem (Brazil; Ma; JFM); Tshur (Kalmuk; KAB); Tukum-i-Baratunga (Iran; NAD); Vegbred (Den.; EFS; KAB); Vergehkraut (Ger.; KAB); Vestigio de Hombre Blanco (Ma.; Sp.; JFM); Voegelbraeune (Ger.; KAB); Warak Sabun Masasah (GHA); Way Bread (Eng.; NAD); Wechbree (Dutch; AUS); Weebelaar (Afr.; KAB); Weegbree (Afr.; Dutch; AUS; KAB); Wegblatt (Ger.; KAB); Wegebreit (Ger.; EFS; KAB); Wegeliballen (Ger.; KAB); Wegerich (Ger.; AUS; AVP; KAB); Weybrede (Eng; AUS); Whiteman's Foot (Eng.; KAB); Whiteman's Footsteps (Eng.; RAR); Wild Plantain (Eng.; JFM); Wild Sago (Eng.; KAB); Xa Luan The (Annam; KAB); Xa Tien (Annam; KAB); Ya En Yue (Thai; POR); Yantin (Shipibo/Conibo; EGG; MD2); Zilovlak (Serbia; AVP).

### Activities:

Analgesic (1; TRA); Anthelmintic (f; ZUL); Antialzheimeran (1; COX; FNF); Antiarthritic (1; COX; FNF); Antiatherosclerotic (1; BGB; CAN); Anticancer (f1; COX; FNF; HH2); Anticapillary-Fragility (1; TRA); Antidiarrheal (f; PED); Antiedemic (f1; CAN; MPG; TRA); Antihemorrhagic (f; CAN); Antiinflammatory (f1; CAN; HH2; PNC; TRA; ZUL); Antileishmanic (f; X8701041); Antioxidant (1; FNF); Antirheumatic (f1; FNF; PED); Antiseptic (f1; CAN; DLZ; PR14:617; VOD); Antispasmodic (1; TRA); Antitumor (f1; COX; FNF; PED); Antitussive (f1; BGB); Antiulcer (f1; TIB; ZUL); Antiviral (1; AJC31:225; TRA); Antiyeast (1; FNF; PED); Aperient (f1; FNF; PNC); Aphrodisiac (f; MPG); Astringent (f1; BGB; DEP; JFM; KOM); Bactericide (1; BGB; CAN); Bronchodilatory (1; FNF; TGP); Capillarfortificant (1; CAN); Cicatrizant (f; DLZ; JFM; VOD); Collyrium (f; DEP; JFM); COX-2-Inhibitor (1; FNF; JNP61:1212; TGP; TIB); Demulcent (f1; AUS; BGB; CRC); Deobstruent (f; CRC; EFS); Depurative (f; DEM); Diaphoretic (f; DEM); Digestive (f1; WAM); Diuretic (f12; BGB; CAN; FNF; TIB; TRA); Emmenagogue (f; MPG); Emollient (f1; BGB; WAM); Expectorant (f1; BGB; EGG; FNF; PED); Febrifuge (f; DEP); Fungicide (1; CAN); Hemostat (f; DEP; EGG); Hepatoprotective (1; BGB; CAN; FNF); Hypocholesterolemic (1; BGB; CAN); Hypotensive (1; TRA); Hypotriglyceridemic (1; BGB; CAN); Hypouricemic (f; ZUL); Immunodepressant (1; AJC31:225); Immunomodulator (1; AJC31:225); Immunostimulant (1; FNF; PR14:617; TGP); Lactagogue (1; FNF); Laxative (f1; BGB; CAN; MPG); Lipolytic (1; BGB; CAN); NO-Genic (1; PR14:617); Orexigenic (f; ZUL); Panacea (f; DEM); Pectoral (f; CRC); Refrigerant (f; CRC); Stimulant (f; DEP); TNF-genic (1; PR14:617); Tonic (f; DEP; GHA; ZUL); Uricosuric (f1; PNC); Uterotonic (f1; BGB; CAN; TRA); Vasotonic (1; TRA); Vermifuge (f; ZUL); Vulnery (f1; AUS; FNF; JFM; VOD).

### Indications:

Abortion (f; JFM); Abscesses (f; CRC; EGG; GHA); Adenopathy (f; CRC); Adenovirus (1; AJC31:225); Alzheimer's (1; COX; JNP61:1212); Anger (f; VOD); Arthrosis (f1; COX; FNF);

JNP61:1212; TGP); Asthma (f; CRC; EGG; MAD); Bacteria (1; TRA); Bites (f; CRC; DEM; EGG); Bleeding (f; EGG; JFM; MAD; ZUL); Boils (f; DEM); Bronchosis (f1; AUS; BGB; CAN; EGG; FNF; MAD); Bruises (f; CRC; KAB); Bug Bites (f1; WAM); Burns (f; TIB); Calculus (f; MPG); Cancer, breast (f1; CRC; FNF; JLH; PED); Cancer, colon (f1; FNF; JLH; JNP61:1212; PED); Cancer, eye (f; CRC; JLH); Cancer, feet (f; CRC; JLH); Cancer, gum (f; CRC; JLH); Cancer, lip (f; CRC; JLH); Cancer, liver (f; CRC; JLH); Cancer, mouth (f; CRC; JLH); Cancer, nose (f; CRC; JLH); Cancer, parotid (f; CRC; JLH); Cancer, rectum (f; CRC; JLH); Cancer, stomach (f; CRC; JLH); Cancer, testicle (f; CRC; JLH); Cancer, throat (f; CRC; JLH); Cancer, uterus (f; CRC; JLH); Carbuncles (f; DEM); Carcinoma (f; JLH); Cardiopathy (f; MD2); Chest Ache (f; DEM); Childbirth (f; JFM; VOD); Cholecystitis (f; CRC); Cholera (f; MAD); Circulosis (f; MD2) Colds (f1; BGB; CAN; CRC; MPG; VOD); Colic (f; CRC); Colitis (f; DEM); Congestion (f; GMJ); Conjunctivitis (f12; DEM; GMJ; MD2; TRA; VOD); Constipation (f; DEM; EGG; MPG); Convulsions (f; CRC); Coughs (f; CRC; ZUL); Cystitis (f1; CAN; DLZ; FNF; MAD); Dandruff (f1; FNF; TGP); Dermatitis (f12; BGB; EGG; KOM; ZUL); Diarrhea (f; CRC; MAD; PED; VOD; ZUL); Dropsy (f; CRC); Duodenitis (f; DLZ); Dysentery (f; CRC; MAD; NAD; PED); Dysmenorrhea (f; DEM; MAD; MPG); Dyspnea (f; DEM); Dysuria (f; MPG; NAD; ZUL); Earache (f; CRC; MAD; ZUL); Edema (1; TRA); Enteritis (f; DEM; MAD; NAD); Enuresis (f; CRC; MAD; ZUL); Epigastritis (f; VOD); Epilepsy (f; CRC); Epistaxis (f; CRC); *Escherichia* (1; TRA); Fever (f; CRC; DEM; MAD; VOD); Frigidity (f; MPG); Fungus (f; CRC); Gas (f1; FNF; MAD; VOD); Gastritis (f1; DEM; DLZ; MAD; MD2; MIC; VOD; WAM); Gingivitis (f; CRC); Gonorrhea (f; CRC; EGG; MD2); Gout (f1; CRC; PNC; ZUL); Headache (f; CRC); Hematuria (f1; CAN; DEM; FNF); Hemoptysis (f; CRC; DLZ); Hemorrhoids (f1; CAN; CRC; EGG; FNF; MAD); Hepatitis (f; CRC; MAD; ZUL); Herpes (1; AJC31:225; CRC); High Blood Pressure (1; CAN; TRA); Hypercholesterolemia (1; BGB; CAN); Hypertriglyceridemia (1; BGB; CAN); Hysteria (f; GMJ; VOD); IBD (1; FNF; PED); Immunodepression (1; AJC31:225); Infection (f1; DEM; JFM; MD2; MIC; TRA; VOD); Inflammation (f12; BGB; DEM; KOM; TRA); Jaundice (f; CRC; EGG; MAD); Kidney Stones (f; CRC; JFM); Lacrymosis (f; CRC); *Leishmania* (f; EGG; GMJ; MD2; X8701041); Leukemia (1; AJC31:225); Leukorrhoea (f; DLZ; EGG); Lichen (f; MAD); Lunacy (f; CRC); Lymphoma (1; AJC31:225); Malaria (f; CRC; EGG; KAB); Menopause (f; GMJ); Mucositis (2; BGB; KOM); Mycosis (f; CRC); Nephrosis (f; CRC; DLZ; EGG; MD2); Neuralgia (f; MAD); Neuroblastoma (f; CRC); Obesity (f1; FNF); Ophthalmia (f; CRC; DEM; DEP; ZUL); Otitis (f; CRC; ZUL); Pain (f1; DEM; TRA); Parasites (f; JFM); Parotitis (f; JLH); Parturition (f; ZUL); Periodontitis (1; TRA); Pertussis (f; KAB; ZUL); Pharyngitis (2; BGB; KOM); Pneumonia (f; DEM); Polyps (f; CRC); Prostatitis (f; MPG); Psoriasis (f1; FNF; MAD; TGP); Pulmonitis (f; DEM; EGG; MAD); Rashes (f; CRC); Respiritis (f1; BGB; MAD); Rheumatism (f; CRC; EGG; ZUL); Rhinitis (f; CRC); Ringworm (f; CRC); Scald (f; DEM); Shingles (f; CRC); Shock (f; VOD); Snake Bite (f; DEM); Sores (f; CRC; GHA; MD2; MIC; ZUL); Sore Throat (f; CRC; JFM; VOD); Splenitis (f; CRC); Sprains (f; DEM); *Staphylococcus* (1; TRA); Stings (f1; CRC; WAM); Stomachache (f1; MAD; WAM); Stomatitis (f12; BGB; KOM; MAD; ZUL); Strangury (f; CRC); Swelling (f; DEM); Syphilis (f; CRC); Tachycardia (f; ZUL); Thrush (f1; CRC; FNF; PED); Toothache (f; CRC; MAD; ZUL); Tuberculosis (f; CRC; EGG; MAD; ZUL); Tumors (f; JLH); Ulcers (f1; CRC; MAD; MD2; MIC; RAR; ZUL); Urethritis (f; MPG); Urogenitis (f; EGG; MPG; TIB); Uteritis (f1; TRA; ZUL); VD (f; CRC); Viruses (1; AJC31:225); Wen (f; JLH); Whitlow (f; CRC); Wounds (f; AUS; DEM; MAD; MD2; MIC); Yeast (1; CRC; FNF).

#### Dosages:

FNFF = !!! Leaves, raw or cooked, and seed eaten. 2 tsp (3 g) herb (PED); 2–4 tsp fresh seed (PED); 5–15 g dry seed (PED); 1–2 tsp dry seed/glass water (PED); 2 tsp (7.5 g) seed or 1 tsp husk/glass water (APA); 2–4 g leaf (in tea) 3×/day (CAN); 2–4 ml liquid leaf

extract (1:1 in 25% alcohol) 3×/day (CAN); 2.5–5 ml liquid leaf extract (PNC); 2–4 ml leaf tincture (1:5 in 45% alcohol) 3×/day (CAN).

- Abnaki poultice the plant on bruises, inflammation, pain, rheumatism, or swelling (DEM; HNI).
- Afro-Brazilians drink the leaf tea for gastrostis, hysteria, and sore throat (VOD).
- Cherokee apply juice to sore eyes, leaves to blisters, bruises, burns, headache, sores, stings, and ulcers, taking the tea for bites, douches, hematuria, and swellings (HNI).
- Chippewa poultice leaves on rheumatism and snake bite, applying chopped root, or greased leaves, sometimes with ginger, to inflammation (HNI).
- Christians report that John the Baptist, in the lore of Saints, used it as a healing herb (EAS).
- Cree apply chewed leaves to burns, earache, scald, toothache, and swallow the leaves for internal bleeding (HNI).
- Delaware use for bruises and female ills (HNI).
- Dominican Caribs use the decoction as a collyrium in inflamed and sore eyes (VOD).
- Fox use diuretic leaves on burns and swelling (HNI).
- Haitians take the leaf tea for gas and gastrostis, the leaf juice for conjunctivitis (VOD).
- Hesquiat poultice leaves on cuts, infections, and sores (HNI).
- Latinos have marked the plant as a stop smoking aid, generating an aversion to tobacco (EAS).
- Madre de Dios Peruvians suggest douching with leaf decoction and dragon's blood for gonorrhea (MD2).
- Mohegans poultice fresh leaves on bug and snake bites (HNI).
- Navajo view the plant as a life medicine or panacea (HNI).
- Ojibwa poultice leaves on burns, bruises, snake bite, sores, sprains, and splinters (HNI).
- Omaha apply hot leaves to help remove splinters and thorns (HNI).
- Paiute take root decoction for cold and pneumonia (HNI).
- Penobscot treat cancer and warts with root (HNI).
- Peruvians apply the leaf in olive oil to eye aches (SOU).
- Peruvians recommend leaf infusion for malaria, and the juice of 6 leaves/day for rheumatism (EGG).
- Peruvians suggest a leaf omelet, or juice of leaves and juice of seeds for bronchitis (EGG).
- Peruvians take the leaf infusion with meals for urinary infections (EGG).
- Potawatomi apply heated leaves to inflammation and swelling, taking root decoction to dislodge bone from throat (HNI).
- Rappahannock apply bruised leaves to the body to reduce fever (HNI).
- Shoshone poultice leaves on boils, bruises, rheumatism, swellings, and wounds (HNI).
- Tete de Boule poultice leaves on burns and wounds (DEM; HNI).
- Tikuna mix crushed leaves with raw egg; 2 tsp 2×/day for bronchitis and fever (SAR).

#### Downsides:

Class 1 (AHP). Not covered (PH2). Newall, Anderson, and Phillipson (1996) caution that a mustard-like oil is allergenic, irritant, and can cause dermatitis. Because of laxative and uterine activity *in vitro*, its use in pregnancy and lactation is to be avoided (CAN). Excessive doses may be hypotensive and laxative. Some plantain leaves were dangerously adulterated with digitalis in 1997.

**SWEET SCENT (*Pluchea carolinensis* (Jacq.) G. Don.) +****ASTERACEAE****Illustrations:**

p 152 (AAB)

**Synonyms:**

*Conyza carolinensis* Jacq.(basionym); *Pluchea odorata* Cass. & Auct. non L.; *P. purpurascens* (Sw.) A.P. DC.; *P. symphytifolia* auct.; fide (USN).

**Notes:**

The best compilations of common names of medicinal plants, within my limited purview, are by Dan Austin in his *Florida Ethnobotany* (AUS); Burkill (1966) in his *Dictionary of Economic Plants of the Malay Peninsula* (IHB), and another Burkill (1985) in *Useful Plants of Tropical West Africa* (UPW). Not only do they give the colloquial names, they often identify the ethnic group, the geographic source, and often provide an English translation. Always interesting reading. Also notable is Dr. Porcher's database (POR), which often gives proper phonetics and native scripts, at least identifying them to country, but not translating them to English. I have had pangs of conscience at age 75 with high blood pressure and a bot-fly infection in my leg, that the time I spend in compiling these common names (often more than a day a species) may delay my attaining one of my goals, a comprehensive medicinal guide and database for Haiti. So frequently I copy my fresh compilations to Dr. Porcher, hoping they will be of use to him if he continues his admirable compilation in Australia.

**Common Names:**

Alinanche (Mex.; JTR; MPG); Big Saab (Ma.; JFM); Bitter Tobacco (Jam.; AUS); Bushy Fleabane (Bah.; AUS); Canela (Mex.; MPG); Canelón (Mex.; JTR; MPG); Cattletongue (Eng.; USN); Chalca (Mex.; JTR; MPG); Chal Ché (Maya; Mex.; AUS; JTR); Ciguapate (Nic.; MPG); Ciguapatle (Mex.; Nahuatl; Sal.; AUS); Conyze Odorante (His.; AHL); Corail (His.; AHL); Cough Bush (Bah.; Eng.; AUS); Cure-For-All (Bar.; Eng.; Fla.; AUS; USN); Curforal (Pan.; MPG); Feuilles La Chose (Haiti; AHL; AUS); Fox Leaf (Eng.; AUS); Grande Sauge (Guad.; Haiti; Mart.; AHL; AUS; VOD); Guérit-Tout (Guad.; Haiti; Mart.; AUS; VOD); Hairy Fleabane (Bah.; AUS); Hierba de Santa Maria (Mex.; AUS; JTR); Hoja de la Playa (Sp.; AUS); Indian Tobacco (Eng.; AUS); Ix Chal Che (Maya; AAB); La Chause (Haiti; AHL; AUS; MPG); La Choille (His.; AHL); La Chose (Haiti; AHL); La Choy (Creole; Dor.; Haiti; MPG; VOD); La Sauge (His.; AHL); Nahuapote (Ma.; Sal.; JFM; JTR; MPG); Pito Sico (Bel.; AAB; AUS); Riverside Tobacco (Eng.; AUS); Saab (Bah.; AUS); Sage (Eng.; VOD); Salvia (Cuba; Dor.; Mex.; Nic.; Pr.; Ven.; AHL; AUS; JTR; MPG); Salvia Blanca (Dor.; AHL; AUS); Salvia Cimarrona (Cuba; Ma.; AUS; JFM; JTR; MPG); Salvia Colorado (Dor.; AUS); Salvia del Pais (Cuba; AUS; JTR; MPG); Salvia de Playa (Cuba; AUS; MPG); Salvia Real (Ma.; JFM); Salvia Santa (Ma.; JFM); Santa Maria (Bel.; Mex.; AAB; AUS; MPG); Santa Maria Cimarron (Mex.; AUS); Sauge (Creole; Haiti; His.; AHL; VOD); Sauge Rouge (Haiti; Mart.; AUS; VOD); Seguapete (Sal.; JTR; MPG); Shrubby Fleabane (Bah.; AUS); Sigupete (Ma.; JFM); Sigupote (Guat.; Hon.; Sal.; MPG); Sour Bush (Bah.; Eng.; AUS; JTR); Suquinay (Sal.; JFM; JTR; MPG); Suquinayo (Sal.; JFM; JTR); Sweet Scent (Eng.; Ma.; Usa.; JFM; JTR; USN); Sweet Scented Fleabane (Bah.; Jam.; Trin.; AUS); Tabac à Jacot (Creole; Fwi.; Haiti; AUS; VOD); Tabac Diable (Creole; Fwi.; Haiti; AUS; VOD); Tabac Marron (Fwi.; AUS); Tabac Mawon (Creole; Haiti; VOD); Tabac Sauvage (Fwi.; His.; AHL; AUS); Tabac Zombie (Fwi.; AUS); Tabat Diable (Fr.; Sp.; USN); Tobacco Cimarron (Pan.; AUS); Wild Tobacco (Ma.; JFM; USN). (Nscn).



**Activities:**

Abortifacient (f; MPG); Alexiteric (f; JTR); Analgesic (f1; DAW; MPG); Anthelmintic (1; X7938272); Antiinflammatory (1; MPG); Antisecretory (1; X7938272); Antiseptic (f1; AAB; X7938272); Antitussive (f; AHL); Bactericide (1; X7938272); Diaphoretic (f; DAW); Digestive (f; JFM; MPG); Emmenagogue (f; JTR; MPG); Expectorant (f; AHL; JFM); Febrifuge (f; AHL; MPG); Fungicide (f1; AAB; MPG); Hemostat (f; JFM); Insecticide (f1; AAB; MPG); Lactagogue (f; MPG); Molluscicide (f; MPG); Neurotonic (f; JFM); Spasmogenic (f; MPG); Tonic (f; MPG); Vasodilator (f; MPG).

**Indications:**

Amenorrhea (f; JTR); Arthritis (f; AAR; JTR); Asthma (f; AAB; AUS); Bacteria (1; X7938272); Bleeding (f; AAB; JFM; JTR); Bronchitis (f; AUS); Bruises (f; AAB); Childbirth (f; AAB; AUS; MPG; VOD); Cholera (f; AHL; AUS; JTR); Colds (f; AAB; AUS; VOD); Colic (f; MPG); Congestion (f; AHL; JFM); Convulsions (f; MPG); Coughs (f; AHL; AUS; VOD); Diabetes (f; VOD); Diarrhea (f; JTR); Dyslactea (f; MPG); Dysmenorrhea (f; AUS); Dyspepsia (f; AUS; JTR; VOD); Dyspnea (f; DAW); Edema (f; AAB); Enterosis (f; MPG); Fever (f; AHL; AUS; MPG); Flu (f; AAB; MPG); Fungus (f1; AAB; MPG); Gastrosis (f; AUS; JTR; MPG); Gout (f; AUS; JFM); Headache (f; AUS; JTR); Head Colds (f; DAW); High Blood Pressure (f; AUS; JFM); Hoarseness (f; AUS; MPG); Infection (f1; AAB; MPG; X7938272); Inflammation (f1; AAB; MPG); Myalgia (f; AAB); Neuralgia (f; AUS; JTR; MPG); Neurosis (f; AUS); Night Sweats (f; AUS); Ophthalmia (f; AUS); Pain (f1; DAW; MPG); Puerperium (f; DAW); Rheumatism (f; AAB; AUS; JFM; JTR; MPG); Sores (f; AUS); Spasms (f; AUS); Stomachache (f; MPG); Swelling (f; AAB; AUS; JFM); Toothache (f; AUS; MPG); Tumors (f; AAB); Twitching (f; AUS); Worms (1; X7938272).

**Dosages:**

FNFF = ? Shoots of some species eaten (FAC).

- Bahamans swirl decoction for toothache, drinking for cold (JFM).
- Belizeans drink 3 cups decoction (boil 3 leaves:3 c water 2 min; steep 15 min) over 3 hr for asthma coming on, or in a day for cold, cough, or flu (AAB).
- Belizeans poultice wrapped leaves warmed in oil to arthritis, muscle pain, neuritis, and rheumatism (AAB).
- Belizeans steam the vagina with 2 handfuls of leaves boiled in 1 gal water for 10 min following childbirth to diminish bleeding and prevent infection; same decoction used to bathe bruises, inflammation, swellings, and tumors (AAB).
- Costa Ricans use the plant as analgesic (MPG).
- Cubans and Dominicans suggest applying the leaves to the forehead for headache and rheumatism (AHL, who aggregated this species with *P. odorata*) (JTR; MPG).
- Dominicans take the cold sweetened decoction for cold and cough (VOD).
- Guatemalans use the leaves for stomach cramps, the root for gastroenteritis, the plant for flu (MPG).
- Haitians suggest the decoction for childbirth, dyspepsia, fever, and rheumatism (JFM; VOD).
- Haitians use the tea as antitussive, expectorant, and febrifuge (AHL).
- Jamaicans use the decoction in childbirth, cold, and fever, and to wash sores (JFM).
- Mayans use the plant in magical ceremonies to cure convulsions (MPG).
- Mexicans use the decoction as abortifacient, emmenagogue, and for expulsion of the placenta (MPG), applying leaves as emmenagogue and febrifuge, heated leaves as hemostat (JTR).
- Nicaraguans use leaf and root tea for bleeding, colic, diarrhea, headache, pain, rheumatism, stomachache, and toothache (MPG).

- Panamanians use the plant for “aire” headache “pasma” and sinusitis (MPG).
- Tamaulipans apply leaf tincture to neuralgia and rheumatism (JTR).
- Trinidadans drink decoction for high blood pressure, using it also as an eyewash (JFM).
- Venezuelans take the decoction as antibronchitic, digestive, expectorant, neurotonic, and sudorific (JFM).
- Yucatanese decoct 5–6 leaves in 200 cc sweet water for amenorrhea, asthma, fever, and hoarseness (JFM).

**Extracts:**

Aqueous aerial extract was weakly antibacterial and antisecretory, with modest anthelmintic activity (X7938272).

**LUCERA (*Pluchea sagittalis* (Lam.) Cabrera) +  
ASTERACEAE**

**Illustrations:**

fig 247a, p 1041 (ARG); p 132 (MPG)

**Synonyms:**

*Conyza sagittalis* Lam.; *Gnaphalium suaveolens* Vell. Conc.; *Pluchea suaveolens* (Vell. Conc.) Kuntze; fide (MPG).

**Common Names:**

Lucera (Arg.; Uru.; ARG; MPG); Lusera (Arg.; MPG); Nasherek Itaa (Arg.; MPG); Quitoc (Arg.; MPG); Quitoco (Arg.; Uru.; MPG); Quitoque (Arg.; MPG); Uashita Lak (Arg.; Toba; MPG); Uashita Lok (Arg.; Toba; MPG); Uoue (Arg.; MPG); Yacare Caa (Arg.; MPG); Yerba del Lucero (Arg.; ARG; MPG). (Nscn).

**Activities:**

Antiedemic (f; X15898705; X8950305); Antihysterical (f; MPG); Antiinflammatory (f1; MPG; X15898705; X8950305); Antioxidant (f1; X8950305); Antiradicular (f; X8950305); Antiseptic (1; X14698521); Aperitive (f; MPG); Carminative (f; MPG); Eupeptic (f; MPG); Febrifuge (f; MPG); Hepatonic (f; MPG); Sedative (f; MPG); Stimulant (f; MPG); Stomachic (f; MPG); Tonic (f; MPG).

**Indications:**

Anorexia (f; MPG); Cramps (f; MPG); Edema (f; X15898705; X8950305); Fever (f; MPG); Gas (f; MPG); Gonorrhea (f; MPG); Hepatosis (f; MPG); Hysteria (f; MPG); Infection (1; X14698521); Inflammation (f1; MPG; X15898705; X8950305); Insomnia (f; MPG); VD (f; MPG).

**Dosages:**

FNFF = ? Shoots of some species eaten (FAC).

- Argentinians use the shoots as antihysterical, antiinflammatory, antispasmodic, aperitive, bitter, febrifuge, hepatic, stimulant, stomachic, and tonic (MPG).
- Uruguayans use shoot tea as eupeptic, febrifuge, and sedative, for gonorrhea and hepatosis (MPG).

**Extracts:**

Dichloromethane plant extract inhibited inflammation in rat hind paw and mice ear edema, and air-pouch granuloma edema; triterpene taraxasteryl acetate isolated from the extract also had topical antiinflammatory activity similar to the extract but at 1/20 of the dose (X15898705).

Aqueous extract also shows antiinflammatory activity and expressed potent antioxidant activity in blood leukocytes, both *in vivo* and *in vitro* (X8950305).

## WHITE FRANGIPANI (*Plumeria alba* L.) + APOCYNACEAE

### Illustrations:

fig 217, p 461 (L&W)

### Notes:

Beauvoir et al. (2001) key the two Haitian species:

- a. Leaves oblong-linear, 0.5–1.5 (–4) cm wide; margin revolute, with no vein parallel to the margin; corolla white . . . . . *Plumeria alba*
- a. Leaves elliptic to oblong-lanceolate, 10–15 cm wide; margin flat, with a vein parallel to the margin; corolla pink, red, white or yellow . . . . . *Plumeria rubra*

### Common Names:

Alelaila (Pr.; L&W); Alelí (Dor.; AVP); Alelí Blanca (Cuba; Pr.; AVP; L&W); Alelí Cimarrón (Pr.; AVP); Alheli (Pr.; Sp.; USN); Amacayo (Col.; AVP); Amacayo (Col.; Peru; RAR); Amapola (Ven.; AVP); Blanco Atabaiba (Cuba; Dor.; AVP); Azucena (Peru; AVP; RAR); Bois de Lait (Fr. Guiana; Guad.; St. Bart.; AVP); Cacalojoche (Cr.; AVP); Cacarucha Blanca (Pan.; AVP); Caterpillar Tree (Eng.; USN); Flor de Cruz (Sal.; AVP); Flor de Ensarta (Sal.; AVP); Flor de Mayo (Mex.; AVP; MAX); Flor de Pán (Nic.; AVP); Franchipanier Blanc (Guad.; Haiti; St. Bart; AVP); Frangipanier Blanc (Fr. Guiana; Haiti; AVP; KAB); Frangipanier Sauvage (Guad.; L&W); Franjipanye Blan (Creole; Haiti; VOD); Graveyard Flower (Eng.; AVP); Hamancay (Peru; Que.; RAR); Jasmim de Anta Brava (Brazil; MPB); Jasmim de Cayenne (Brazil; Por.; AVP); Jasmim de Leita (Brazil; MPB); Jasmim do Pará (Brazil; MPB); Jasmine (Barbuda; L&W); Jazmín (Peru; EGG); Kananakaravira (Sanskrit; KAB); Lirio (Peru; RAR); Lirio Blanco (Cuba; AVP); Lirio del Valle (Cuba; RyM); Milktree (Eng.; Pr.; USN); Milky Bush (Vi.; L&W); Nikté (Mex.; AVP); Pagoda Tree (Eng.; USN); Pau de Leite (Brazil; MPB); Pigeonwood (Dwi.; L&W; USN); Plumeria (Eng.; AVP); Sabak Nikté (Mex.; AVP); Sabanikté (Mex.; AVP); Sak Nikte (Mex.; MAX); Suche (Peru; EGG); Suche Rosado (Peru; EGG); Tabaiba (Pr.; AVP); Tamaiba (Ven.; AVP); Temple Tree (Eng.; AVP); White Champa (Eng.; WOI); White Frangepan (Dwi.; L&W); White Frangipani (Eng.; Scn.; AH2); Wild Frangipani (Eng.; USN). (American entries diacritically prepared).

### Activities:

Abortifacient (f; SKJ); Bactericide (f; EGG; WOI); Cardiotonic (f; EGG); Cathartic (f; EGG); Caustic (f; EGG; MPB); Emmenagogue (f; EGG); Febrifuge (f; DAW); Fungicide (f; EGG); Hemostat (f; WOI); Pectoral (f; MPB); Purgative (f; MPB); Rubefacient (f; WOI); Stimulant (f; WOI); Toxic (f; EGG); Vermifuge (f; VOD).

### Indications:

Abscesses (f; DAW); Arthrosis (f; WOI); Bacteria (f; EGG; WOI); Bleeding (f; WOI); Blennorrhagia (f; KAB); Constipation (f; MPB); Dermatitis (f; VOD; WOI); Dropsy (f; WOI); Fever (f; DAW); Fungus (f; EGG; WOI); Gingivitis (f; WOI); Hernia (f; MPB); Herpes (f; WOI); Infection (f; EGG; WOI); Mycosis (f; EGG); Parasites (f; VOD); Rheumatism (f; WOI); Scabies (f; WOI); Snake Bite (f; MPB); Sprains (f; MPB); Syphilis (f; VOD); Toothache (f; MAX; VOD); Tumors (f; JLH); VD (f; VOD); Viruses (f; WOI); Warts (f; MPB); Worms (f; KAB; VOD; WOI).

**Dosages:**

FNFF = X

- Guianans apply the latex to herpes, scabies, and sores (KAB).
- Haitians take the root decoction for worms (VOD).
- Haitians use as a wash for skin parasites, syphilis, and toothache (VOD).
- Yucatanese use the latex for abscess and toothache (MAX).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**FRANGIPANI (*Plumeria rubra* L.) X**

**APOCYNACEAE**

**Illustrations:**

fig 218, p 463 (L&W)

**Synonyms:**

*Plumeria acuminata* W. T. Aiton; *Plumeria acutifolia*; fide (USN).

**Notes:**

Many authors equate this also with *P. alba* so I aggregate the activities and indications (but not obvious common names) here, though various respected authors, e.g., McGuffin et al. (2000), the USDA Nomenclature Database (USN), and Beauvoir et al. (2001) maintain *P. alba* and *P. rubra* as distinct.

Little and Wadsworth (1964) distinguish the two species as follows:

- a. Leaves narrowly lance-shaped, long-pointed, the edges turned under; lower surface densely hairy, flowers white ..... *Plumeria alba*
- a. Leaves elliptic, short-pointed, the edges not turned under; lower surface sometimes hairy, flowers red, white, or yellow ..... *Plumeria rubra*

**Common Names:**

Alelí (Pr.; AVP; L&W); Alelí de la Tierra (Sp.; AVP); Alelí Rojo (Pr.; L&W); Amancayo (Col.; AVP); Amapola (Ven.; AVP); Atabaiba Rosada (Dor.; AHL); Azuceno (Peru; EGG); Bel-laco Caspi (Peru; EGG); Cacalojoche (Cr.; AVP; L&W); Cacalosúchil (Mex.; L&W; MAX); Cacaloxochitl (Mex.; L&W); Campechana (Mex.; MAX); Campotonera (Mex.; MAX); Caracucha (Pan.; Peru; AVP; EGG; SOU); Caracuche (Peru; AVP); Flor de Cuervo (Mex.; AVP); Flor de Ensarta (Sal.; L&W); Flor de la Cruz (Guat.; Sal.; AVP); Flor de Mayo (Bel.; Sal.; AVP; BNA); Flor de Toro (Nic.; AVP; L&W); Franchipanier Rose (Haiti; AVP); Franchipanier Rouge (Haiti; AVP); Frangijapone (Vi.; AVP); Frangipagne Rose (Haiti; AVP); Frangipán (Cuba; AVP); Frangipani (Eng.; Pr.; Scn.; AH2; USN; VOD); Frangipanier Rose (Guad.; Haiti; St. Bart, AVP); Frangipanier Rouge (Guad.; Haiti; St. Bart.; AVP); Franjipan Woz (Creole; Haiti; VOD); Hamancay (Que.; EGG); Hong Ji Dan Hua (China; Pin.; AH2); Jacalosúchil (Mex.; MAX); Jasmin Caiana (Por.; AVP); Jessamine (Bah.; AVP); Juche (Cr.; AVP); Lirio (Cuba; L&W); Lirio de la Costa (Sp.; AVP); Lirio Tricolor (Cuba; AVP; RyM); Matuhua (Guat.; L&W); Mayflower (Bel.; BNA); Nigte de Monte (Guat.; L&W); Nosegay (Eng.; AVP); Nosegay Frangipani (Eng.; L&W); Pagoda Tree (Eng.; AVP); Palo de Cruz (Guat.; AVP); Palo de la Cruz (Pan.; AVP); Q'arakuchu (Bol.; Que.; DLA); Red Frangepan (Dwi.; AVP; L&W); Red Frangipani (Eng.; Ocn.; AH2); Red Jasmine (Bermuda; Jam.; AVP); Red Paucipan (Vi.; AVP); Red Plumeria (Eng.; AVP); Sacuanjoche (Nic.; AVP; L&W); Spanish Jasmine (Bah.;



Bel.; AVP; BNA); Suche (Peru; EGG); Suche Amarillo (Peru; SOU); Suche Blanco (Peru; SOU); Suche Rojo (Peru; SOU); Suche Turumbaco (Peru; SOU); Suchi (Bol.; Peru; Que.; DLZ; EGG); SÚchil (Mex.; AVP); Torito (Cr.; L&W); Turumbaco (Peru; EGG).

### Activities:

Abortifacient (f; NPM; WOI); Alterative (f; KAB); Anesthetic (1; MPI); Anticancer (1; JNP53:1447; X1921428; X1965200); Antiherpetic (1; WOI); AntiHIV (1; X1710653); Anti-leukemic (1; JNP53:1447; X1965200); Antimelanomic (1; JNP53:1447; X1965200); Antimutagenic (1; X8980690); Antisarcomic (1; JNP53:1447); Antiseptic (f; LMP; NPM); Antitumor (1; JNP53:1447); Antiviral (1; JNP54:143); Astringent (f; RAR); Bactericide (1; JE33:289); Candidicide (1; MPI); Cardioactive (1; X3086679); Cicatrizant (f; EGG); Cytotoxic (1; JNP53:1447; X1921428; X1965200); Dermatitigenic (1; JFM); Diuretic (f; LMP); Emmenagogue (f; LMP; WOI); Febrifuge (f; LMP); Fungicide (f1; EGG; WOI); Hemostat (f; KAB; WOI); HIV-RT-Inhibitor (1; X1710653); Hypoglycemic (1; MPI); Laxative (1; JFM); Molluscicide (1; JE33:289; X1921428); Pectoral (f; JFM); Piscicide (f; NPM); Purgative (f; EGG; LMP); RT-Inhibitor (1; JNP54:143; X1710653); Rubefacient (f; LMP); Sedative (f; JFM); Stimulant (f; WOI); Sudorific (f; JFM); Uterotonic (1; MPI); Vermifuge (f; JFM; NPM).

### Indications:

Abscesses (f; LMP); Amebiasis (f; NPM); *Bacillus* (1; MPI); Bacteria (1; JE33:289); Blennorrhagia (f; KAB); Blennorrhoea (f; LMP); Boils (f; NPM); Cancer (1; JNP53:1447; X1921428; X1965200); Cancer, breast (1; X1965200); Cancer, colon (1; X1965200); Cancer, lung (1; X1965200); *Candida* (1; MPI); Caries (f; LMP); Cholera (f; DLZ); Constipation (f1; JFM); Dermatitis (f; JFM); Dropsy (f; WOI); Dysentery (f; NPM); Erysipelas (f; JFM); *Escherichia* (1; MPI); Fever (f; LMP); Fibrosarcoma (1; X1965200); Fungus (f1; EGG; WOI); Gingivitis (f; WOI); Gonorrhoea (f; NPM); Hemorrhoids (f; JFM); Herpes (f; KAB); Hoarseness (f; JFM); HIV (1; JNP54:143; X1710653); Infection (f1; EGG; JE33:289); Itch (1; WOI); Leukemia (1; JNP53:1447; X1965200); Lumbago (f; LMP); Melanoma (1; JNP53:1447; X1965200); Mycosis (f1; EGG; WOI); Myosis (f; NPM); Pain (f; LMP); Parasites (f; DLZ); Pneumonia (1; MPI); Pulmonosis (f; JFM; VOD); Rheumatism (f; NPM; WOI); *Salmonella* (1; MPI); Sarcoma (1; JNP53:1447); Scabies (f; KAB); *Shigella* (1; MPI); Sores (f; JFM); Stitch (f; JFM); *Streptococcus* (1; MPI); Swelling (f; NPM); Syphilis (f; JFM); Toothache (f; KAB); Tuberculosis (f1; EGG; LMP; VOD); VD (f; JFM; WOI); *Vibrio* (1; MPI); Warts (f; DAW); Worms (f; JFM; LMP); Wounds (f; EGG); Yeast (1; MPI).

### Dosages:

FNFF = ? De Lucca and Zalles (1992) say the toasted seed are edible, but not for me (JAD). Dried flowers are used as a tea substitute and eaten as a sweetmeat (FAC).

- Assamese use for permanent sterilization (X12266264).
- Bolivians take the floral decoction for cholera (DLZ).
- Costa Ricans put latex into carious teeth, and use root bark decoction for syphilitic sores (JFM).
- Dominicans suggest the flowers are pectoral, the bark purgative (AHL).
- Guatemalans use a weak flower infusion as pectoral, sedative, and sudorific, also for chest complaints and hoarseness (JFM).
- Haitians add the flowers to small bits of sugar cane, calophyllum resin, gomphrena soursop, and pigeonpeas in equal amounts, and sweetened, for pulmonary tuberculosis (VOD).
- Nepalese take ca. ½ tsp bark juice/day for amebic dysentery (NPM).
- Nepalese use the latex to cleanse germs and worms from wounds, and for boils, gonorrhoea, rheumatic pain, and venereal sores (NPM).
- Peruvians apply the latex as a cicatrizant to fungal dermatoses and wounds (EGG).

- Peruvians suggest the plumericine for tuberculosis (EGG).
- Trinidadans use bark infusion to bathe piles and the leaf infusion on erysipelas (JFM).
- Yucatanese apply latex to dermatoses and syphilitic sores (JFM).

**Downsides:**

LD50 stem and stem bark extracts 1,000 mg/kg ipr mus (MPI). Contains cardiac glycosides (X3086679). As of July 2007, the FDA Poisonous Plant Database listed 18 titles alluding to toxicity of this species.

**Extracts:**

Compounds isolated from the heartwood, plumericin and isoplumericin, show antibacterial, cytotoxic, and molluscicidal activity, with 4-hydroxyacetophenone being slightly cytotoxic (X1921428). The iridoid fulvoplumierin inhibited HIV-1 RT (IC50 45 µg/ml) (X1710653). Allamandin, allamcin, 2,5-dimethoxy-p-benzoquinone, fulvoplumierin, plumericin, and liri-odendrin cytotoxic against murine lymphocytic leukemia (P-388) and several human cancer cell-types (breast, colon, fibrosarcoma, lung, melanoma, KB) (X1965200).

**PURSLANE (*Portulaca oleracea* L.) +++****PORTULACACEAE****Illustrations:**

fig 192 (DAV); pl 95 (KAB)

**Notes:**

This edible succulent annual weed ranges from Amazonas to Alaska. The seed cannot germinate until seasonal temperatures exceed 86°F, after rain. Flowers appear 4 to 6 weeks after emergence of the plant, opening only in a.m. of hot, sunny days and lasting only a day, producing no nectar. The white rust (*Albugo portulacae*) produces white, blisterlike spots on leaves. Another common fungus is *Helminthosporium portulacae*. Caterpillarlike larvae of the purslane sawfly (*Schizocerella pilicornis*) and larvae of the portulaca leaf-mining weevil (*Hypurus bertrandi*) mine the leaves. An orange-red butterfly caterpillar, the variegated fritillary (*Euptoieta claudia*), feeds on this as does white-lined sphinx moth caterpillar (*Hyles lineata*), sometimes called the purslane sphinx. Purslane is a weed host of the sugar beet cyst nematode (*Heterodera schachtii*), and soybean cyst nematodes (*H. glycines*) feed in the roots. Dove, lark, finch and sparrow, longspur, mice and vole, eat the seeds; rabbits eat the plant. Persians and East Indians raised it more than 2,000 years ago (EAS; MZN).

**Common Names:**

Adioné (Ivo.; UPW); Adwera (Akim; Ashanti; Ghana; KAB; UPW); Adwerair (Twi; KAB); Afla (Ewe; KAB); Aflangtokpui (Ewe; Krepi; KAB); Akusinami (Wayäpi; GMJ); Ale-

crim de San Jose (Ma.; JFM); Amor Crescido (Ma.; JFM); Ancharupa (Mex.; Peru; JLH); Ancharupay (Mex.; Peru; JLH); Andrachni (Greek; KAB; RAR); Andrakla (Greek; KAB); Andralikna (Greek; KAB); Antrakla (Greek; KAB); Arjoubat (Arab.; Mauritania; UPW); Assun Obison (Kalmuk; KAB); Ausiman (Bicol; KAB); Awrorke (Ga; KAB); Baglatullhumqa (Arab.; NPM); Baglat ul Mubârak (Arab.; JLH); Baklet el H'ammka (Arab.; JLH); Baraloniya (Ben.; NPM); Baralunia (Hindi; KAB); Bechali (Nig.; UPW); Beldroega (Brazil; Ma.; EFS; JFM; JLH; MPB); Beldroega Pequena (Por.; AVP; JFM); Bembe (Ma.; JFM); Bembe di Come (Ma.; JFM); Berdolaga (Bel.; BNA); Bhuigholi (Mar.; KAB); Boddupavilikura (Tel.; KAB); Brihalloni (Sanskrit; KAB); Buklutulkukema (Arab.; NPM); Burdliecka (Malta; KAB); Burtzeln (Ger.; JLH); Caaponga (Brazil; MPB); Capi (Shipibo/Conibo; EGG); Chhotalunia (Hindi; KAB); Cholza (Iran; KAB); Chulo-Chulco (Peru; EGG); Colasiman (Tag.; KAB); Common Purslane (Eng.; BUR); Common Purslane (Eng.; Ma.; JFM); Coupe-Pied (Haiti; AHL; AVP; JFM); Croupier (Creole; Guy.; GMJ); Cutuyuyo (Ecu.; BEJ); Dabrin Saniya (Hausa; KAB); Dailara (Mun.; KAB); Dailsag (Sadani; KAB); Desikulfah (Nwp.; KAB); Dhap (Gurung; NPM); Dudagorai (Kan.; KAB); Ensámelte (Gui. Bissau; UPW); Fandria-Nomby (Sakalave; KAB); Fasa Kabba (Hausa; KAB); Fasa Kumburi (Hausa; KAB); Flor de un Dia (Ma.; Sp.; JFM); Gangapavilikura (Tel.; KAB); Garden Purslane (Eng.; KAB); Garyaunla Jhar (Nepal; NPM); Gelang (Malaya; EFS); Gendakola (Sin.; KAB); Ghol (India; KAB); Ghole (Mar.; KAB); Gholika (Sanskrit; KAB); Gholu (India; KAB); Gol (Bom.; Kon.; KAB); Golasiman (Tag.; KAB); Golchibagi (Kon.; KAB); Graviol (Ma.; JFM); Gronposren (Ma.; JFM); Harshen Saniya (Hausa; KAB); Iarba Grasa (Rom.; KAB); Kalebotetraka (Betsileo; NPM); Kapin (Shipibo/Conibo; EGG; MD2); Karikkirai (Tam.; KAB); Khate Jhar (Gurung; NPM); Kherefeh (Iran; KAB); Khulfa (Toba; KAB); Khulfekibhaji (Dec.; KAB); Khurfa (Arab.; Hindi; EFS; KAB); Khurfakara (Arab.; KAB); Khurfar (Iran; Urdu; KAB); Khursa (Hindi; DEP; EFS; KAB); Koricchira (Mal.; KAB); Kotspu (Piro; EGG; SOU); Kozuppa (Sanskrit; OFF); Kropie Assan (Palikur; GMJ); Kulfa (Hindi; KAB); Kulfi (Ben.; KAB); Kurfa (Arab.; Hindi; Iran; EFS; KAB); Kurfah (Bom.; KAB); Kurfak (Iran; KAB); Kurfekasag (Hindi; KAB); Kurza Nega (Pol.; KAB); Kurza Noga (Pol.; AVP); Llutu-Llutu (Que.; EGG; RAR); Llutu-Llutu-Yuyu (Que.; EGG); Llutu-Yuyu (Aym.; Bol.; Que.; DLZ; EGG; RAR); Lona (Sanskrit; KAB); Loni (Guj.; Sanskrit; EFS; KAB); Lonia (Ma.; Hindi; JFM; KAB); Lonika (Sanskrit; EFS; KAB); Lonk (Sin.; KAB); Lunak (Kachhi; Kohlu; Kum.; Nasirabad; Nwp.; Sharig; DEP; KAB); Lunia (Hindi; Sanskrit; EFS; KAB); Lunia Kulfah (Hindi; KAB); Luniya (Nwp.; KAB); Luniyakulfah (Kum.; KAB); Lunuk (Hindi; KAB); Ma Chih Hsien (China; KAB); Ma Ch'ih Hsien (China; JLH); Ma Chi Xian (Pin.; AH2; DAA); Manibari (Sp.; AVP); Manshuri (Las Bela; KAB); Ma Si Hien (Ic.; KAB); Mayabyit (Burma; KAB); Mazabi (Gui.; UPW); Mhotigal (Mar.; KAB); Mhotiluni (Guj.; Porebunder; KAB); Mirri (Toba; KAB); Misbredie (Afrikaan; KAB); Missi-Kumbere (Sudan; AVP); Mota Uric Alang (San.; DEP; KAB); Motighol (Bom.; Mar.; KAB); Muncha (Hindi; KAB); Muniya (Nwp.; KAB); Munya (Ben.; Hindi; KAB); Murlai (Pushtu; KAB); Nereyu (Krobo; KAB); Nonkha (Hindi; KAB); Nonkhalunuk (Hindi; KAB); Nundhiki (Nepal; NPM); Núniya (San.; Nwp.); Nuniya Sag (Mooshar; NPM); Olasiman (Tag.; KAB); Ora Pro Nobis (MPB); Paite Jhar (Nepal; NPM); Pakchho (Chepang; NPM); Pappukura (Tel.; KAB); Parupukkirai (Tam.; KAB); Pasalai (Madras; KAB); Passakaba (Sudan; AVP); Passalakkirai (Tam.; KAB); Paxlac (Ma.; JFM); Peddapavilikura (Tel.; KAB); Pichli (Jhalawan; KAB); Pichlo (Kachhi; KAB); Pochco Yuyo (Peru; EGG); Porcelana (Dor.; AHL); Porcelin (Fr.; KAB); Porcellana (It.; Malta; AVP; EFS; KAB); Porcellane (Fr.; AVP; KAB); Porchailles (Fr.; AVP); Porclein (Dutch; AVP); Porselein (Afrikaan; Dutch; KAB); Portulaca (It.; Rom.; KAB); Portulak (Den.; Ger.; Rus.; Swe.; AVP; KAB); Postelein (Afrikaan; Ma.; JFM; KAB); Pot Purslane (Eng.; KAB); Poupier (Haiti; AHL; AVP; JFM); Poupyé (Creole; Haiti; VOD); Poupyé Komen (Creole; Haiti; VOD); Pourcellaine (Fr.; AVP; EFS; KAB); Pourcellane (Fr.; KAB); Poupier (Cre-

ole; Guy.; Haiti; Réunion; GMJ; KAB); Pourpier Bord de Mer (Haiti; AVP); Pourpier Commun (Fr.; JFM); Pourpier Cultive (Fr.; KAB); Pourpier Rouge (Réunion; KAB); Pourpier Sauvage (Fr.; EFS); Poutou Laigo (Lan.; KAB); Pressley (Eng.; BUR); Pulichankirai (Sri.; KAB); Pulikkirai (Tam.; KAB); Purslain (Bel.; BNA); Purslance (Eng.; BUR); Purslane (Eng.; Malta; Scn.; AH2: AVP; JFM; KAB); Purunisag (Oriya; KAB); Purzelkraut (Ger.; AVP); Pusley (Ma.; JFM); Pussley (Ma.; JFM); Rau Sam (Ic.; KAB); Saku (Sierra Leone; UPW); Salada de Negro (Ma.; JFM); Salimran (Tamang; NPM); San Mafe (Mali; UPW); Sarikin Jibji (Hausa, KAB); Sayikan (Tag.; KAB); Schrucha (Rus.; KAB); Segan (Malaya; KAB); Selele (Suto; KAB); Semizotu (Tur.; EFS); Shurdako (Jhalawan; KAB); Sportellacchia (It.; Malta; EFS; KAB); Suberhiyu (Japan; JLH); T]a p'lo (Lib.; UPW); Tiaf a Nuk (Sen.; UPW); Tirenkhurfeh (Iran; KAB); Tsikobokobondaanitra (Hova; KAB); Turk (Iran; KAB); Tursbuk (Pushtu; KAB); Turuk (Iran; KAB); Urialangara (Mun.; KAB); Varkkos (Afrikaan; KAB); Verdolaga (Bel.; Cuba; Ma.; Peru; Sp.; BNA; JFM; KAB; LOR; MDD); Verdolaga Amarillo (Ma.; Sp.; JFM); Verdolonga (Ecu.; BEJ); Wa'a Chichi (Ese'eja; EGG; MD2); Warkharai (Pushtu; KAB); Wèy N]á (Niger; UPW); Wilde Postelein (Dutch; EFS); Wilder Portulak (Ger.; EFS); Xuxul (Ma.; JFM); Yalamlu (Piro; Yine; EGG; MD2); Yeru (Peru; EGG).

### Activities:

Alexeritic (f; DAV); Alterative (f; DAV); Analgesic (f1; KAB; X11090998; X11390132); Anti-convulsant (1; X11390132); Antidepressant (1; FNF); Antidiabetic (f; GMJ); Antifertility (1; PR14:329); Antihypoxic (1; X16282054); Antiinflammatory (1; X11090998); Antimutagenic (1; X11527563); Antioxidant (1; AAB; X15452401); Antiscorbutic (1; DAV; JFM); Antiseptic (f1; AAB; FAD; 60P); Antispasmodic (f; BUR); Antiulcer (1; X15287075); Antiviral (f; DAV); Aperient (f; BUR; DAV); Astringent (1; DAV); Bactericide (1; AAB; WOI); Bronchodilator (1; X15182905); Cardiotoxic (f; AHL; JFM; KAB); Collyrium (f; KAB); Demulcent (f1; DAV); Depurative (f; AAB); Detoxicant (f; AEL31:3); Digestive (f; GMJ; VOD); Diuretic (f1; AAB; DAV; FAD); Emmenagogue (f; EGG; JFM; MPB; SOU); Emollient (f; DAV); Febrifuge (f; VOD); Fungicide (f1; DAV; PR14:329); Gastroprotective (1; X15287075); Hemostat (f1; DAV; FAD); Hepatoprotective (f; 60P); Hyperglycemic (1; 60P); Hypertensive (1; MPB); Hypoglycemic (f1; AAB; JAC7:405; WOI); Hypotensive (1; FAD); Lactagogue (f; DAW); Laxative (f; JFM); Myorelaxant (1; AAB; X15182905); Parasiticide (f1; X11891089); Refrigerant (f; AAB); Sedative (f; AHL; DAV; VOD); Stimulant (f1; DAW); Tonic (f1; WBB); Uterocontractant (1; 60P); Uterotonic (1; AAB); Vermifuge (f1; DAV; DLZ; VOD; X11891089); Vulnerary (f1; AAB; X12963132).

### Indications:

Abscesses (f; FAD); Amenorrhea (f; EGG; MPB; VOD); Anaphylaxis (1; FNF; HAD); Anthrax (f; DAV); Asthenia (f; VOD); Asthma (1; X15182905); Backache (f; VOD); Bacteria (1; AAB); Bilioussness (f; KAB); Bites (f; DAV; MD2); Bleeding (f1; AAB; FAD); Bleenor-rhagia (f; DAV); Boils (f; DAV); Bruises (f; DEM; JFM); Burns (f; AEL31:3; EGG; FAD; MD2; WOI); Cancer, eye (1; JLH); Cancer, rectum (1; JLH); Cancer, testicle (1; JLH); Cancer, uterus (1; JLH); *Candida* (1; X10925396); Carbuncles (f; UPW); Cardiopathy (1; AAB; FNF; HAD); CFS (1; FNF); Chancre (f; UPW); Cheilosis (f; BUR); Colds (f; DAV); Colic (f; DAV; MD2); Colitis (1; AEL31:3); Congestion (f; JFM); Conjunctivitis (f; JFM); Constipation (f; JFM); Corns (f; JLH); Costalgia (f; UPW); Coughs (f; AAB); Cystosis (f; JFM); Debility (f; UPW; VOD); Depression (1; FNF); Dermatophyte (1; X10925396); Dermatitis (f1; AEL31:3; DAV; EGG; KAB); Diabetes (f1; AAB; AEL31:3; EGG; WOI); Diarrhea (f; DAV; DEM); Dysentery (f; DAV; EGG; WOI; 60P); Dysmenorrhea (f; VOD); Dyspepsia (f; EGG); Dysuria (f; AYL; FAD; WOI); Earache (f; DEM; FAD; WOI); Eczema (f1; AEL31:3; DAV; FAD); Edema (f; DAV; JFM); Enterosis (1; X15287075); Erysipelas (f; DAV; WOI); Fever (f; EGG; 60P); Fit (f; UPW); Fungus (1; PR14:329); Gastrosis (f1; DEM; X15287075);



60P); Gonorrhoea (f; EGG; VOD); Gravel (f; DAW); Headache (f; AAB; AEL31:3; FAD; MD2; UPW); Hematuria (f; AHL; WOI); Hemoptysis (f; KAB; WBB); Hemorrhoids (f; DAV); Hepatosis (f; EGG; JFM; KAB; MD2; VOD; WOI); Herpes (f1; AEL31:3; DAV; EAS); Hyperglycemia (f; DAV); Hypotension (f; DAV); Infection (1; AAB; X10925396); Inflammation (f1; AEL31:3; FAD; JLH; X11090998); Insanity (f; UPW); Insomnia (f; AHL; DAV; VOD); Itch (f; AEL31:3; FAD); Jaundice (f; EGG; SOU); Leprosy (f; KAB); Leukorrhoea (f; DAV); Low Blood Pressure (1; 60P); Mastosis (f; AEL31:3; BUR; WOI); Migraine (f; EGG); Miscarriage (f; UPW); MS (f; TGP); Mycosis (1; PR14:329); Nausea (f; DAV); Nephrosis (f; EGG; JFM; KAB; MD2; 60P); Nipples (f; BUR); Ophthalmia (f; DLZ; JFM); Pain (f1; DEM; KAB; MD2; VOD; X11390132); Palpitations (f; JFM); Parasites (f1; X11891089); Pleurosis (f; DAV); Prickly Heat (f; KAB); Proctosis (f; JLH); Psoriasis (1; AEL31:3); Pulmonosis (f1; EGG; WBB; X15182905); Respirosis (1; X15182905); Ringworm (1; AEL31:3); Scalding (f; KAB); Scarlet Fever (f; DEM); Scurvy (f; VOD); *Shigella* (1; AAB); Shingles (1; AEL31:3); Snake Bite (f; WBB); Sores (f1; AAB; FAD); Splenosis (f; KAB; WOI); Sprains (f; VOD); *Staphylococcus* (1; AAB); Stings (f1; EGG; FAD; FNF; JAD); Stomachache (f; AEL31:3; FAD); Stomatosis (f; DEM; KAB; WOI); Strangury (f; AEL31:3; FAD); Swelling (f; EGG; JFM; WOI); Syphilis (f; UPW); Thirst (f; KAB); Thrombus (f; DEM); Toothache (f; WOI); Tuberculosis (f; EGG; MD2); Tumors (f; DAV); Ulcers (f1; AAB; X15287075); Urethrosis (f; JLH); VD (f; VOD); Viruses (f; VOD); Vitiligo (f; AEL31:3); Warts (1; AEL31:3; JLH); Whitlow (f; JFM); Worms (f1; DEM; JFM; VOD; X11891089); Wounds (f1; AAB; X12963132); Yeast (1; X10925396).

### Dosages:

FNFF = !! Many ethnic groups eat salad of cooked greens, often drying it for winter use. Treat it like spinach. I like it, leaf, stems, etc. much better than spinach, raw, cooked, or pickled (DEM; FAC; JAD).

- Asian Indians apply the juice to burning sensations and prickly heat (KAB).
- Asian Indians grind leaves and apply, in oil, to boils (KAB).
- Bolivians drop plant juice into eye for eye ailments (DLZ).
- Bolivians take seed infusion as vermifuge (DLZ).
- Brazilians take the plant for wounds and use as a lotion for sore eyes (JFM).
- Cherokee use plant juice for earache and worms (DEM; HNI).
- Curaçaoans eat as salad for days to overcome constipation or liver congestion (JFM).
- Curaçaoans give plant decoction to children as vermifuge (JFM).
- Dominican Caribs use boiled leaves as poultice (often with *Petiveria*) for backache and dysmenorrhea (VOD).
- Haitians eat broth or salad for asthenia, debility, and scurvy (VOD).
- Haitians use dry leaf decoction to treat asthenia (VOD).
- Iroquois poultice it on bruises and burns, respect it as a good medicine to correct a bad medicine (DEM).
- Jamaicans take the decoction as a heart tonic (JFM).
- Madre de Dios natives use the juices for bugbites, burns, colds, and tuberculosis, taking the decoction for kidney and liver ailments (MD2).
- Navajo use the plant for pain and stomachache (DEM).
- Peruvians use the stems to treat jaundice (SOU).
- Rappahannock use bruised leaves as salve in dermatosis (DEM).
- Trinidadans take the plant for palpitations (JFM).
- Venezuelans take the decoction as diuretic, laxative, and vermifuge (JFM).
- Western Keres Indians take shoot tea for diarrhea and as an antiseptic wash on blood clots (DEM), rubbing it in the mouth of patients having difficulty opening their mouths (DEM).

**Downsides:**

Can cause oxalic acid damage; fatal to animals grazing heavily on it (WOI). As of July 2007, the FDA Poisonous Plant Database listed 30 titles alluding to toxicity of this species.

**Extracts:**

Rich source of pre-vitamin A, vitamin C and E, as well as omega-3-fatty acids. I find the following abstract suspiciously high (maybe 3 orders magnitude) for beta-carotene: "The beta-carotene content ranged from 22 to 30 mg/g fresh mass in leaves" (X11043602). Average contents of norepinephrine and dopamine were 0.015% and 0.20%, respectively (X15881360). NA and DA were 0.5–100 µg/ml ( $r = 0.9952$ ) and 6.25–200 µg/ml ( $r = 0.9992$ ), respectively. The relative standard deviations of the corrected peak area were 6.73% and 4.26%, respectively. Noradrenaline and dopamine ranges were 0.5–100 µg/ml and 6.25–200 µg/ml, respectively, in various plant parts (X15792250).

**CURARINA (*Potalia amara* Aubl.) ++****LOGANIACEAE****Illustrations:**

fig 193 (DAV)

**Synonyms:**

*Nicandra amara* (Aubl.) Gmel.

**Common Names:**

Anabi (Brazil; MPB); Awuibiden (Maku; SAR); Chin-Wee (Puinave; SAR); Curarina (Peru; Sp.; LOR; MDD); Curarina Sacha (Peru; SOU); Kurare (Aguaruna; SOU); Martiguaje (Col.; SAR); Okaji-Kahpuu (Bora; SAR); Pau de Cobra (Brazil; MPB); Pau de Cobra Tremblador (Brazil; MPB); Sacha Mangua (Peru; Sp.; LOR).

**Activities:**

Analgesic (f; DAV); Antidote (f; DAV); Cicatrizant (f; DAV); Emetic (f; DAV); Febrifuge (f; GMJ); Laxative (f; DAV); Toxic (f; DAV).

**Indications:**

Abscesses (f; GMJ); Bites (f; DAV); Caries (f; DAV); Conjunctivitis (f; MPB); Constipation (f; DAV); Fever (f; GMJ); Food Poisoning (f; DAV; MPB); Ophthalmia (f; DAV); Pain (f; DAV);

Snake Bite (f; DAV); Stings (f; DAV); Swelling (f; GMJ); Syphilis (f; DAV); Urethritis (f; MPB); VD (f; DAV); Wounds (f; DAV).

**Dosages:**

FNFF = ? Aqueous decoction or extract for aches and pains (DAV). Leaf decoction used for conjunctivitis and urethritis (MPB).

- Boras apply the maceration on snake bite, stingray, and ant bites (isula) (AYA; SAR).
- Brazilians suggest leaf decoction for conjunctivitis, ophthalmia, and urethritis (MPB).
- Brazilians use infusion for food poisoning, ophthalmia, and syphilis (MPB).
- Créoles and Wayãpi use leaf decoction for fever (GMJ).
- Latinos consider shoots and leaves antisyphilitic (DAV).
- Latinos use strong tea for cassava poisoning (DAV).
- Palikur use tender leaves and small branches for swellings from deep abscesses (GMJ).
- Peruvians use aqueous decoction or extract for aches and pains (DAV).
- Vaupes Indians take infusion as an emetic in food poisoning (SAR).

**Downsides:**

Considered toxic. As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**GRAPE TREE (*Pourouma cecropiifolia* Mart.) ++**

**URTICACEAE**



**Illustrations:**

fig 195 (DAV)

**Common Names:**

Baacohe (Peru; Sp.; LOR); Cocura (Peru; RAR); Cucura (Peru; RAR); Grape Tree (Eng.; DAV); Ohe (Barasana; SAR); Sacha Uvillas (Peru; Sp.; USN); Shuvia (Peru; SOU); Suiya (Aguaruna; SOU); Ubilla (Peru; Sp.; LOR); Unye (Siona; SAR); Uva (Col.; SAR); Uva Uva (Peru; RAR); Uvilla (Col.; Peru; SAR; SOU); Wewit Katku (Bara-Maku; SAR).

**Activities:**

Intoxicant (f; DAV); Sterilant (f; DAV).

**Dosages:**

FNFF = !! Fruits edible; toasted seed used as coffee substitute (DAV).

- Bara-Maku rub bark scrapings in water and give to women to cause permanent sterility (SAR).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**CAT'S-TONGUE (*Priva lappulacea* (L.) Pers.) ++****VERBENACEAE****Illustrations:**

fig 271D (DAG); p 118 (AAB)

**Synonyms:**

*Verbena lappulacea* L. (basonym); fide (USN).

**Common Names:**

Amor Seco (Cuba; Dor.; AHL; AVP); Bolsa Quihua (Peru; EGG); Bur Bush (Eng.; JFM); Bur Vervain (Eng.; JFM); Cadillito (Ma.; JFM); Cadillo (Ma.; JFM); Cadillo de Bolsa (Mex.; MAX); Cadillo Sacalato (Ma.; JFM); Cancer Herb (Bel.; Eng.; BNA); Cat's-Tongue (Eng.; Fla.; JFM; USN); Ceguera (Bol.; DLZ); Chirrite (Ma.; JFM); Clammy Bur (Jam.; JFM; USN); Collant (Fwi.; USN); Cousin Vent (Haiti; AHL; AVP); Fasten'-Pon-Coat (Jam.; USN); Gendarme (Fwi.; USN); Herbe a Angine (Fr.; JFM); Hierba de Cancer (Bel.; Sp.; BNA); Josho Maquen Rao (Peru; Shipibo/Conibo; EGG); Masote (Bel.; BNA); Mosote (Bel.; Sp.; AAB); Mozote (Nic.; USN); Mozote de Gallina (Ma.; JFM); Mozotillo (Ma.; JFM); Pegajosa (Ma.; JFM); Pega Pega (Cuba; Dor.; AHL; AVP); Pega Ropa (Bel.; Sp.; AAB; BNA); Puspo Quihua (Peru; EGG); Rabbit Meat (Ma.; JFM); Rattleweed (Ma.; JFM); Styptic Bur (Jam.; USN); Topecito de Conuco (Dor.; AHL); Torâ Pim (Bel.; BNA); Tsayuntsay (Mex.; MAX); Tzayentzal (Mex.; MAX); Velvet Bur (Jam.; USN); Velvet-Burr (Eng.; Fla.; USN); Vendôme (Haiti; AHL; AVP); Verbena (Mex.; MAX); Zayuntzay (Ma.; JFM). (Nscn).

**Activities:**

Antifertility (f; EGG); Antiseptic (f; AAB); Cicatrizant (f; EGG); Contraceptive (f; EGG); Diuretic (f; AHL); Vulnerary (f; AAB; EGG).

**Indications:**

Colds (f; JFM); Colic (f; DAV); Coughs (f; DAV; IED); Diarrhea (f; AHL); Enterosis (f; AHL); Fungus (f; AAB); Gas (f; AHL); Gastrosis (f; DAV); Infection (f; AAB); Itch (f; AAB); Leukorrhoea (f; MAX); Mycosis (f; AAB); Oliguria (f; AHL); Parasites (f; AAB); Rashes (f; AAB); Sores (f; AAB); Sore Throat (f; JFM); Sprains (f; GMJ); Wounds (f; AAB; EGG).

**Dosages:**

FNFF = ?

- Belizeans apply powdered parched leaves to dermatoses, fungal infections, sores, and wounds (AAB).
- Belizeans apply juice or crushed plant to itch and rash (AAB).
- Belizeans drink 3 cups tea (handful of leaves to 3 cups water steeped 10 min) daily for 3 days for parasites, followed by purge (AAB).
- Chocó use for whooping cough (IED).
- Créoles poultice whole plant maceration with salt onto sprains (GMJ).
- Cuna drink root decoction with lemon juice for stomachache (DAV).
- French West Indians take the shoot decoction in gargle for sore throat (JFM).
- Haitians use for diarrhea, gastroenteritis, intestinal gas, and oliguria, (AHL).
- Hispaniolans use for colic, cough, diarrhea, gas, and gastritis (DAV).
- Jamaicans take decoction for colds (JFM).

- Peruvians apply powdered dry leaves to wounds (EGG).
- Peruvians take leaf and root infusion during menstruation to avoid conception (EGG).
- Peruvians treat wounds with salted leaf decoction (EGG).
- Yucatanese use the leaf decoction in leukorrhea (MAX).

**Downsides:**

Toxic to cattle (DLZ).

## ALGARROBO (*Prosopis chilensis* (Molina) Stuntz) ++

### FABACEAE

**Illustrations:**

f 127c (ARG)

**Synonyms:**

*Acacia siliquastrum* Lag.; *Ceratonia chilensis* Molina (basionym); *Prosopis siliquastrum* (Lag.) DC.; fide (USN).

**Notes:**

Peggy and I were lucky enough to change the millennium at Machu Picchu. In Cuzco, I first enjoyed the delectable cocktail they call “algarrobiña.” It was as rich and pleasing to me as such beverages as Kahlua and Cream or Bailey’s Irish Cream. But the “algarrobiña” was made with a flavoring from the diminutive carob- or locust-like pods of the Chilean mesquite. This is a temperate species very similar to tropical *Prosopis juliflora* and with the same applications. (See CR2 for uses of *Prosopis juliflora*, many of which will probably accrue also to this species.) The Wealth of India (WOI) has reduced *P. juliflora* to a synonym of *P. chilensis*. The USDA still maintains them as separate species. The Wealth of India data below might indeed belong to either species, which from a medicinal point of view might be considered generic (WOI).

**Common Names:**

Algarrobo (Peru; Sp.; EGG; USN); Algarrobo Blanco (Sp.; USN); Algarrobo Chileno (Arg.; Sp.; ARG); Algarrobo de Chile (Sp.; USN); Algarrobo Paiva (Peru; Sp.; EGG); Chilean Algarrobo (Eng.; USN); Chilean Carob (Eng.; JAD); Chilean Mesquite (Eng.; USN); Cupechichó (Bol.; Chiquitano; DLZ); Cupesí (Bol.; DLZ); Curuyuqui (Bol.; Chiriguano; DLZ); Garroba (Peru; Sp.; EGG); Garropa (Bol.; DLZ); Garroperro (Bol.; DLZ); Guarango (Bol.; Que.; DLZ); Huaranca (Peru; Sp.; RAR); Huarango (Peru; Sp.; EGG; RAR); Kiawe (Eng.; Sp.; HAD; USN); Mesquite (Eng.; USN); Tacco (Peru; RAR); Thaco (Peru; RAR); Thaxo (Aym.; Bol.; DLZ); Warunku (Bol.; Que.; DLZ); Yawar Lloque (Bol.; Que.; DLZ).

**Activities:**

Antiseptic (f1; DLZ; WOI); Antitussive (f; DLZ); Astringent (f; EGG; RAR); Bactericide (1; WOI); Herbicide (f; WOI); Lactagogue (f; RAR); Laxative (f; EGG); Tonic (f; RAR).

**Indications:**

Angina (f; DLZ); *Bacillus* (1; WOI); Bacteria (1; WOI); Bilioussness (f; EGG); Bronchitis (f; EGG); Calculus (f; EGG); Conjunctivitis (f; DLZ); Constipation (f; EGG); Coughs (f; DLZ); Diarrhea (f; DLZ; RAR); Dysentery (f; DLZ); Dyslactea (f; RAR); Infection (f1; DLZ; WOI); *Micrococcus* (1; WOI); Pertussis (f; DLZ); Pharyngitis (f; DLZ); Sore Throat (f; DLZ); Stones (f; EGG).

**Dosages:**

FNFF = !! Fruits edible raw or cooked. Pods contain nutritious pulp; sometimes ground into bread, cakes, mush, porridge, or a beverage called “atole” or fermented to beer; seeds edible. Cotyledons used in candy bars in Chile (DLZ; FAC; TAN; X11048586).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**COPAL (*Protium copal* (Schltdl. & Cham.) Engl.) ++****BURSERACEAE****Illustrations:**

p 56 (AAB)

**Synonyms:**

*Icica copal* Schltdl. & Cham.; *I. palmeri* Rose; *Protium palmeri* (Rose) Engl.

**Notes:**

Ceremonially very important to the Mayans, “copal” was used in incense ceremonies, an incense in prayer, to ward off the “evil eye” or “mal ojo.” On a full moon, the harvester would slice open the bark, then return home and drink a thick corn “atole.”

**Common Names:**

Copal (Bel.; Sp.; AAB; BNA); Pom (Bel.; Maya; AAB; BNA); Pomte (Bel.; Maya; BNA). (Nscn).

**Activities:**

Antiseptic (f; AAB); Parasiticide (f; AAB); Vulnerary (f; AAB).

**Indications:**

Caries (f; AAB); Enterosis (f; AAB); Gastrosis (f; AAB); Infection (f; AAB); Pain (f; AAB); Parasites (f; AAB); Sores (f; AAB); Wounds (f; AAB).

**Dosages:**

- Belizeans scraped the bark, powdered it, and applied to infections, sores, and wounds (AAB).
- Belizeans stuffed resin into carious teeth which soon broke off easily (AAB).
- Belizeans took decoction (1 × 6-inch bark boiled 10 min in 3 cups water) for intestinal parasites and other stomach ails (AAB).

**Downsides:**

FNFF = ?

**YSY (*Protium heptaphyllum* (Aubl.) Marchand) +****BURSERACEAE****Synonyms:**

*Icica heptaphyllum* Aubl.; *Protium aromaticum* Engl.; *P. insigne* (Triana & Planch.) Engl.; *P. microphyllum* HBK.; *P. tacamahaca* March.

**Common Names:**

Almecegueira (Brazil; MPB); Anime (Peru; EGG); Breu (Brazil; MPB); Breu-Branco (Brazil; MPB); Breu-Jauaricica (Brazil; MPB); Caraño (Peru; EGG); Currucay (Peru; EGG); Jauaricica (Brazil; MPB); Ysy (Par.; MPG). (Nscn).

**Activities:**

Analgesic (f1; JFM; X15964027; X16450293); Antidepressant (1; X17207523); Antiinflammatory (f1; MPB; X14643690); Antiulcer (1; X14643690); Anxiolytic (1; X17207523); Astringent (f; MPG); Cercaricide (1; X703849); Decongestant (f; JFM); Depurative (f; MPG); Gastroprotective (1; X14643690; X15368675); Hemostat (f; MPB); Hepatoprotective (1; X15763370); Molluscicide (1; MPG); Schistosomicide (1; MPG; X703849); Sedative (1; X17207523).

**Indications:**

Acne (f; JFM); Anxiety (1; X17207523); Arthrosis (f; JFM); Asthma (f; JFM); Bleeding (f; MPB); Bronchosis (f; JFM); Catarrh (f; MPG); Congestion (f; JFM); Coughs (f; JFM); Depression (1; X17207523); Dysentery (f; JFM); Enterosis (1; X14643690); Gangrene (f; MPB); Gastrosis (1; X14643690; X15368675); Headache (f; EGG; JFM); Hepatosis (1; X15763370); Inflammation (f1; MPB; X14643690); Insomnia (1; X17207523); Pain (f1; JFM; X15964027; X16450293); Pulmonosis (f; JFM); Rheumatism (f; JFM); Schistosomiasis (1; MPG; X703849); Sores (f; MPB); Swelling (f; JFM); Syphilis (f; JFM); Toothache (f; JFM); Tumors (f; MPG); Ulcers (1; X14643690; X15368675); VD (f; EGG).

**Dosages:**

FNFF = ! Ripe fruits used to make a beverage; seeds yield oil (EGG).

- Brazilians use the hemostatic bark and leaves to treat gangrenous sores and inflammation (MPB).
- Brazilians and Colombians use the resin decoction for tumors (MPG).
- Colombians use the resin for pimples, sores, swellings, and syphilis (JFM).
- Panamanians use an unidentified *Protium* called “caraña hedionda” or “chutra” for asthma headache, and screw worm (IED; JFM).
- Paraguayans mix the resin with tallow for catarrh (MPG).
- Paraguayans use bark decoction as astringent depurative, the leaf tea for catarrh (MPG).
- Peruvians use resin to treat headache and VD (EGG).
- Surinamese dissolve 1 tsp powdered resin in 1 liter water taking 3 cups/day for asthma, bronchitis, and chest congestion (JFM).
- Venezuelans apply the resin to dislocations, ringworm, and tumors, and on the temples and behind the ears for headache, rheumatism, and toothache (JFM).

**Extracts:**

Alpha- and beta-amyrin, isolated from the trunk wood resin, showed hepatoprotective activity in acetaminophen-induced liver injury in mice (X15763370), antiinflammatory, antiulcer, gastroprotective (X14643690; X15368675), and antiitch activity (X15301927). Leaf and fruit extracts cercaricidal against *Schistosoma mansoni* (X703849).

**BLACK CHERRY (*Prunus serotina* Ehrh.) ++****ROSACEAE****Illustrations:**

p 776 (CR2)

**Synonyms:**

*Cerasus serotina* Torr. & Gray; *Padus serotina* Erhr.; fide (BUR).

**Notes:**

Erichsen-Brown (1989), Steinmetz (1957), and Felter and Lloyd (1898) treat it with the closely related *P. virginiana* which shares many common names and indications with this species. Common names below may apply to either (CEB; EFS; FEL).

**Common Names:**

Amerikaanse Vogelkers (Dutch; EFS); Black Cherry (Eng.; Scn.; AH2; USN); Black Choke (Eng.; BUR; KWD); Cabinet Cherry (Eng.; KWD); Cerezo (Sp.; EFS); Choke Cherry (Eng.; KWD); Coke Cherry (Eng.; BUR); Mountain Black Cherry (Eng.; KWD); Puante Virginienne (Fr.; EFS); Rum Cherry (Eng.; KWD); Virginian Prune (Eng.; EFS); Virginian Wild Black Cherry (Eng.; EFS); Virginia Prune Bark (Eng.; BUR; KWD); Virginische Ahikirsche (Ger.; EFS); Virginische Traubenkirsche (Ger.; EFS); Virginische Vogelkers (Dutch; EFS); Virginya Lirazi (Tur.; EFS); Whicky Cherry (Eng.; BUR; KWD); Wild Black Cherry (Eng.; Ocn.; AH2; KWD); Wild Cherry (Eng.; CR2; KWD; USN).

**Activities:**

Analgesic (f1; APA); Antidiarrheal (f1; WAM); Antiinflammatory (f1; APA; X16328068); Antiproliferant (1; X16328068); Antiseptic (f; CEB); Antispasmodic (f; SKY); Antitussive (f1; APA; HNI; PH2; SKY; WAM); Anxiolytic (f; TOM); Apoptotic (1; X16328068); Astringent (f1; APA; EFS; PH2; PNC); Chemopreventive (1; X16328068); Cyanogenic (f1; PH2); Decongestant (f1; APA); Depurative (f; DEM); Digestive (f; FEL); Expectorant (f1; APA; FAD); Gastrostimulant (f; FEL); Hematonic (f; DEM); Narcotic (f; CEB); Pectoral (f; EFS); Poison (f; EFS); Sedative (f1; APA; PH2; PNC; WAM); Tonic (f; EFS; FEL); Tranquilizer (f1; APA); Vermifuge (f; CEB).

**Indications:**

Ague (f; CEB; DEM; HNI); Anemia (f; FEL); Anorexia (f; FAD; FEL); Anxiety (f; APA); Aponia (f; HNI); Asthma (f; CEB); Bilioussness (f; DEM); Bright's Disease (f; HNI); Bronchosis (f1; APA; CEB; FAD; PH2; WAM); Burns (f; CEB; DEM); Cancer (f1; APA; JLH; X16328068); Cancer, colon (f1; JLH; X16328068); Cardiopathy (f; CEB; FEL; TOM); Child-birth (f; DEM; HNI); Chills (f; DEM); Chlorosis (f; FEL); Cholera (f; CEB; DEM; HNI; KWD); Cirrhosis (f; TOM); Colds (f; APA; FAD; HNI; MIC; X16328068); Coughs (f1; APA; FAD; HNI; MIC; PH2; WAM); Cramps (f; DEM); Cystosis (f; HNI); Debility (f; FAD; FEL); Dermatitis (f; DEM); Diarrhea (f1; APA; FAD; FEL; WAM); Dysentery (f; CEB; DEM); Dyspepsia (f; BUR; FAD; FEL; PH2); Dysuria (f; FEL); Enterosis (f1; APA); Fever (f; FAD; FEL; X16328068); Flu (f; MIC); Gangrene (f; CEB); Gastrosis (f; CRC; FEL); Gout (f; TGP); Headache (f; DEM); Hematochezia (f; DEM); Hepatosis (f; FEL); Hysteria (f; CEB; DEM); Inflammation (f1; APA; FAD; FEL; X16328068); Insomnia (f1; APA); Itch (f; DEM); Jaundice (f; DEM; TOM); Labor (f; APA); Laryngitis (f; DEM); Lethargy (f; DEM); Lumbago (f; CEB); Malaria (f1; HNI); Measles (f; DEM; HNI); Menorrhagia (f; HNI); Nephrosis (f; HNI); Neurosis (f; BUR; FEL; PH2); Ophthalmia (f; FEL); Pain (f1; APA; CEB); Palpitations (f; FEL); Pertussis (f; APA; FEL; PH2; PNC); Phthisis (f; FEL); Pleurisy (f; FEL); Pneumonia (f; APA; FAD; FEL); Pulmonosis (f; APA; FAD; FEL); Respirosis (f; TOM); Scrofula (f; DEM; FEL); Smallpox (f; HNI); Sores (f; DEM; HNI); Sore Throat (f; DEM; X16328068); Stress (f; APA); Syphilis (f; DEM); Tuberculosis (f; DEM; FEL; TOM); Ulcers (f; DEM); VD (f; DEM); Worms (f; DEM); Wounds (f; CEB; DEM).

**Dosages:**

FNFF = ! Fruits consumed, out of hand, in beverages, or pemmican (FAC; JAD). 2–4 g bark (AHP); 1 oz bark/pt water (FEL); 1 tsp powdered bark/cup water 1–3×/day (APA); 2.5–10 ml



bark syrup (PNC); 0.25–0.5 tsp bark tincture 1–3×/day (APA); 2–4 ml bark tincture (PNC); 2–4 ml tincture 3–4×/day (SKY).

- Alabamans suggest bark syrup, with boneset and mullein, as the “finest cough syrup” (TOM).
- Alabamans suggest the bark with blueberry, redroot, and yellowroot for diabetes and high blood pressure; sounds like Syndrome X to me, as treated by Tommy Bass (TOM).
- Cherokee used the bark for ague, childbirth, cold, cough, failing voice, fever, malaria, measles, and thrush (HNI).
- Lumbee in a “neotraditional” mode took the cherry wine for difficult pregnancies, the bark for cystitis, metrorrhagia, and nephrosis, including Bright’s disease (HNI).
- Micmac used the bark for smallpox (HNI).
- Mohegan and Ojibwa used bark tea for colds, sores, and wounds (HNI).
- Penobscot used the bark as antitussive, tonic, and to mask bad-tasting medicines (HNI).

#### Downsides:

Class 2d. Cyanogenic glycosides (prunasin, yielding up to 1,500 ppm HCN). Not for long term use; do not exceed recommended dose (2–4 g bark) (AHP). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). But they designate no dosage! (JAD). “Canadian regulations do not allow ... as a non-medicinal ingredient for oral use products” (Michols, 1995). Not for high dose or use for more than one week pediatrically (WAM). Poisoning from ingesting leaves reported for a goat, with depression, weakness, seizure-like activity, and lateral recumbency (X15586581). As of July 2007, the FDA Poisonous Plant Database listed 122 titles alluding to toxicity of this species.

#### Extracts:

Bark extract antiproliferant and apoptotic in human colorectal cancer cells, with increased NAG-1 expression a/o down-regulation of beta-catenin signaling, and reduced cyclin D1 expression (X16328068).

P

## VIRAVIRA (*Pseudognaphalium viravira* (Mol.) Anderb.) + ASTERACEAE

#### Synonyms:

*Gnaphalium viravira* Mol.

#### Common Names:

Dinka I Awen (Chile; MPG); Hierba de la Diuca (Chile; MPG); Hierba de la Vida (Chile; MPG); Siempre Viva (Chile; MPG); Vira Vira (Chile; Que.; MPG). (Nscn).

#### Activities:

Antiseptic (1; X9406895); Bactericide (1; X9406895); Expectorant (f; MPG); Febrifuge (f; MPG); Gram(+)-icide (1; X9406895); Laxative (f; MPG); Oxytotic (f; MPG); Sudorific (f; MPG).

#### Indications:

Bacteria (1; X9406895); Bronchitis (f; MPG); Colds (f; MPG); Congestion (f; MPG); Constipation (f; MPG); Fever (f; MPG); Infection (1; X9406895); Ophthalmia (f; MPG); Pain (f; MPG); Wounds (f; MPG).

#### Dosages:

FNFF = X

- Chileans take tea (1 tbsp flowers/cup water) 2–3×/day, for bronchitis, cold, and fever (MPG).
- Chileans wash wounds with strained and cooled or lukewarm decoction (10 g plant/cup water) (MPG).
- Mapuches use for various pains, ophthalmia, and as expectorant (MPG).

**Downsides:**

With a folkloric reputation as oxytocic, the plant might be avoided by pregnant women.

**Extracts:**

Leaf and twig resin exudates ent-16-kauren-19-oic acid and, to a lesser extent, ent-9(11),16-kauradien-19-oic acid show antimicrobial activity against Gram-positive bacteria (X9406895).

**GUAVA (*Psidium guajava* L.) ++****MYRTACEAE****Illustrations:**

fig 117 (DAV); p 417 (L&W); pl 421 (KAB)

**Synonyms:**

*Psidium cujavillus* Burm. f.; *P. pomiferum* L.; *P. pumilum* Vahl; *P. pyriferum* L.

**Common Names:**

Aambak (Limbu; NPM); Abas (RAI); Aduaba (Nzima; KAB); Am (Hindi; DEP); Amasi (Newari; NPM); Amba (Chepang; Majhi; Nepal; Tamang; NPM); Ambak (Nepal; KAB); Ambaru (Tamang; NPM); Ambhok (Sunwar; NPM); Amlorkhung (Lepcha; KAB); Amrad (Iran; DEP); Amratafalum (Sanskrit; NAD); Amrud (Arab.; Iran; Nwp.; Urdu; IHB; KAB; NAD); Amrut (Hindi; Pun.; NAD); Amruta Phalam (Sanskrit; NAD); Am Ud (Arab.; DEP); Amuk (Nepal; KAB; NAD); Anjirzard (Pun.; KAB); Aprithaktvacha (Sanskrit; KAB); Araca (Brazil; Ma.; JFM; MPG); Araca Felpudo (Brazil; MPG); Arasa (Bol.; Chiriguano; DLZ); Arasaguasu (Brazil; KAB); Arazá Puitá (Arg.; AVP; L&W); Arrayan (Arg.; Guat.; Tag.; AVP; KAB); Arrayana (Mex.; AVP); Banjiro (Japan; RAI; TAN); Bayabas (Pi.; Tag.; JTR; KAB); Bayawas (Java; IHB); Belauki (Danuwar; NPM); Belauti (Magar; NPM); Bilauti (Gurung; NPM); Bimpish (Cashibo; EGG; RAR; SOU); Bimpishi (Shipibo/Conibo; MD2); Biyawas (Malaya; IHB); Bodojamo (Oriya; KAB); Burimak (Ulwa; ULW); Bwa Kréyol (Creole; Haiti; VOD); Cak (Guat.; AVP; MPG); Calinbaquin (Tag.; KAB); Cas (Cr.; AVP); Ch'amxuyy (Guat.; MPG); Coloc (Bel.; Mex.; Guat.; AVP; BNA; MPG); Common Guava (Eng.; VOD); Cotorrero (Cuba; AVP); Dipajaya (Java; IHB; RAI); Djambœ (Brazil; Dutch; Ma.; EFS; JFM; MPG); Djambœ Kloetoek (Malaya; EFS); Djambu (Ger.; EFS; RAI); Djambu Klutuk (Malaya; EFS);

Dridhabija (Sanskrit; KAB); Eguaba (Fanti; KAB); Enandi (RAI); Esajo (Ese'eja; MD2); Ettajama (Tel.; WOI); Fan Shi Liu Gan (Pin.; DAA); Farang (Thai; IHB); Gavo (Betsimis-araka; KAB); Gaya (Magahi; DEP; KAB); Gay Oi (Cochin; KAB); Goa (Ewe; Ga; Krobo; KAB); Goaachhi (Ben.; KAB; WOI); Goaiba (Brasil; RAR); Goaichi Phal (Ben.; NAD); Goavifotsy (Hova; KAB); Goavimeny (Hova; KAB); Goavy (Hova; KAB); Gobiab'era (Por.; AVP); Goejaaba (Dutch; AVP); Goejaba (Sur.; AVP; L&W); Goiaba Branca (Por.; AVP); Goiaba Pera (Por.; AVP); Goiabeira (Brazil; MPB); Gouav (Creole; Haiti; VOD); Gouave (Haiti; AVP); Govabier (Por.; AVP); Goyave (Haiti; AVP); Goyavier (Haiti; Wi.; AVP; KAB); Goyavier a Fruits (Guad.; L&W); Goyavier de Cayenne (Wi.; KAB); Goyavier de Jardin (Wi.; KAB); Goyavier du Pays (Wi.; KAB); Goyavier Porte-Pois (Guy.; AVP); Goyavier Savanes (Guy.; KAB); Goyya (Tel.; WOI); Goyya Pandu (Tel.; NAD); Goyya Pazham (Tam.; NAD); Granaat Peer (Dutch; IHB); Gua (Twi; KAB); Guafin (Col.; AVP); Guava (Bel.; Eng.; [not Sp. except Ecu.; Peru; Pr.]; Scn.; AH2; CR2; DAG; DAV; EGG; NPM; VOD); Guavenbaum (Ger.; RAI); Guayaba (Bel.; Ecu.; Sp.; AAB; DAG; L&W); Guayaba Agria (Dor.; AHL); Guayaba Colorado (Mex.; JTR); Guayaba Cotorrera (Cuba; JTR); Guayaba de China (Mex.; JTR); Guayaba de Gusano (Nic.; JTR); Guayaba del Peru (Cuba; JTR); Guayaba de Venado (Mex.; JTR); Guayaba Injerta (Dor.; AHL); Guayaba Manzana (Col.; JTR); Guayaba Peralera (Nic.; AVP); Guayaba Peruana (Mex.; JTR); Guayaba Perulera (Nic.; Sp.; AVP; L&W); Guayabito Piru (Col.; AVP); Guayabo (Cuba; Peru; Sp.; DAV; LOR; MDD; RyM); Guayabo Agrio (Ven.; AVP); Guayabo Blanco (Brazil; Peru; DAV; MPG); Guayabo Casero (Ma.; JFM); Guayabo de China (Peru; ROE); Guayabo de Gusana (Nic.; Peru; MPG; ROE); Guayabo de Venado (Peru; ROE); Guayabo Dulce (Col.; AVP; L&W); Guayava Peluda (Pan.; TBC); Guayavus (Haiti; IHB); Guyaba (Dutch; AVP); Gwayav (Creole; Haiti; VOD); Huallaba (Peru; EGG; RAR); Huayaba (Peru; EGG); Hurapo (Chile; AVP); Ikiec (Ma.; JFM); Jam (Bom.; Dec.; IHB; KAB); Jama (Tel.; NAD); Jama Phala (Kan.; NAD; WOI); Jamba (Mah.; NAD); Jambu Batu (Malaya; IHB); Jambu Bereksa (Malaya; IHB); Jambu Biji (Malaya; IHB); Jambu Biyawas (Malaya; IHB); Jambu Burong (Malaya; IHB); Jambu Klutuk (Java; Sunda; IHB); Jambu Krutuk (Java; IHB); Jambu Melukut (Malaya; IHB); Jambu Padang (Malaya; IHB); Jambu Pelwas (Malaya; IHB); Jambu Portugal (Malaya; IHB); Jamo (Oriya; KAB); Jam Pandu (Tel.; DEP; NAD); Jamphal (Sin.; NAD); Jamrud (Guj.; WOI); Jamrukh (Guj.; NAD; WOI); Julabojamo (Oriya; KAB); Kakirio (Br. Guy.; AVP); Kamsharni (Arab.; KAB); Kayawase (Amboina; IHB); Kima (Cocaima; SOU); Komashki (Matsigenka; MD2); Kondajama (Saora; KAB); Kowayas (Celebes; IHB); Koyabas (Timor; IHB); Koyabasa (Celebes; IHB); Koyapalam (Tam.; NAD); Koyga (Tam.; SKJ); Koyya (Tam.; NAD; WOI); Kuawa (RAI); Kujabas (Rotti; IHB); Kumaski (Peru; SOU); Kume'oi (Amarakaeri; Huachipaeri; MD2); Kuru (Ulwa; ULW); Kuya (Wayāpi; GMJ); Kwayau (Palikur; GMJ); Laljam (Dec.; KAB); Lal Peyara (Ben.; NAD); Lal Sufrium (Hindi; NAD); Lambu (Lepcha; NPM); Latam (Bhojpuri; Mooshar; NPM); Lattam (Rai; NPM); Llomy (Amuesha; SOU); Luma (Arg.; AVP); Lupro (Limbu; NPM); Madhuramla (Sanskrit; KAB); Madhuria (Assam; NAD); Malaka (Burma; KAB); Malakaben (Burma; KAB); Malakalbeng (Burma; NAD); Malakkapera (Mal.; KAB); Mansala (Sanskrit; KAB; SKJ); Mapun (Thai; IHB); Matos (Peru; EGG; RAR); Matus (Peru; EGG; RAR); Matus Sacha (Peru; EGG; RAR); Mérisyé ti Fèy (Creole; Haiti; VOD); Mridu (Sanskrit; KAB); Nulu (Pan.; MPG); Oi (Ic.; KAB); Oi Rung Nho (Cochin; KAB); Oracha (Tikuna; SAR); Paera (Kon.; NAD); Palamper (Mal.; MPI; NAD); Pata (Bel.; Guat.; AVP; BNA); Pataj (Ma.; JFM); Peera (Goa; IHB); Pela (Guy.; AVP); Per (Kon.; KAB); Pera (Badaga; KAB); Peragadi (Sin.; DEP); Perakka (Mal.; IHB); Perala (Bom.; India; Sanskrit; IHB; NAD; RAI); Perala Hannu (Kan.; NAD); Pero Indiano (It.; AVP); Peru (Bom.; Mah.; IHB; NAD); Peruka (Sanskrit; KAB); Perulera (Nic.; L&W); Petokal (Java; IHB; RAI); Peyara (Ben.; NAD; WOI); Phan Thach Luu (Ic.; KAB); Piac (Ma.; JFM); Piche (Bel.; BNA); Pichi (Bel.; Mex.; AVP; BNA; RAI); Picho (Mex.; AVP); Pici (Maya; AAB); Pidudi (Oriya; KAB); Pie Gouave (Haiti; AVP); Pita (Sanskrit; KAB); Piyara (Ben.; Guj.; Nwp.; IHB; KAB; WOI);

Poat-a (Taiwan; TAN); Poirier des Indes (Wi.; KAB); Posh (Guat.; MPG; RAI); Purijo (Pan.; MPG); Puta (Belize; BNA); Putah (Ma.; JFM); Pyé Gwayav (Creole; Haiti; VOD); Sacha Guayaba (Peru; EGG); Safari (Hindi; SKJ; WOI); Safed (Hindi; WOI); Safed Jam (Dec.; KAB); Safed Safari (Hindi; Pun.; MPI); Sahuintu (Peru; EGG; RAR); Sailla (Peru; EGG; RAR; SOU); Sawintu (Aym.; DLZ); Saylla (Que.; DLZ); Sebe Hannu (Kan.; WOI); Segapugoyya (Tam.; KAB); Segapu (Tam.; DEP); Sengoyya (Tam.; KAB); Shahuintu (Que.; EGG; RAR; SOU); Sháwi (Aguaruna; EGG); Shebe Hannu (Kan.; NAD); Shepe (Kan.; DEP); Sibi (Kan.; KAB); Sida (Hova; KAB); Sirigoyya (Tam.; KAB); Sore (Cr.; AVP); Taybas (Tag.; KAB); Tehua (Culina; EGG); Tellajama (Tel.; KAB; WOI); Ti Mérisyé (Creole; Haiti; VOD); Tokal (Java; IHB; RAI); Trabek (Hova; KAB); Trabek Srok (Cam.; KAB); Tspata (Piro; EGG); Tuava (Tahiti; KAB); Tuphel (Mar.; WOI); Tuvara (Sanskrit; KAB); Uyyakkondan (Tam.; KAB); Vastula (Sanskrit; KAB); Vellaikoyya (Tam.; KAB); Wild Guava (Bel.; L&W); Wuyamas (Celebes; IHB); Xallxoxotl (Mex.; IHB); Yamu (Thai; IHB); Yocaa (Amahuaca; EGG); Zaitun (Sin.; KAB); Zetton (Sin.; NAD).

### Activities:

Abortifacient (f; MPG); Amebicide (1; RAI; X10782488); Analgesic (1; PR14:107; RAI); Antiadhesive (1; RAI); Anticolitic (1; PR14:107); Anticonvulsant (1; PR14:107); Antidiarrheal (1; TRA); Antiemetic (f1; EGG; PR14:107); Antiepileptic (1; PR14:107); Antigastritic (1; PR14:107); AntiHIV (1; VVG); Antihyperglycemic (1; PR14:388); Antiinflammatory (f; PR14:388); Antiinsomniac (1; PR14:107); Antiischemic (1; X12571408); Antileukemic (1; FT72:865); Antimalarial (1; X12428427); Antimutagenic (1; MPG; TRA); Antioxidant (1; RAI; VVG; X12571408); Antiperistaltic (1; PR14:107); Antiplasmodial (1; X12428427); Antiproliferant (1; FT72:865); Antiradicular (1; FT72:865; RAI; X12571408); Antiseptic (f1; AHL; JFM; RAI; VVG); Antispasmodic (1; NPM; PR14:388; TRA; 60P); Antitumor (1; VVG); Antitussive (f; EGG; RAI; RAR); Antiviral (1; MPG; PR14:388; X11938857); Aperient (f; DEP; NAD); Aphrodisiac (f; KAB); Astringent (1; IED; NPM; VVG; WBB); Bactericide (1; TRA; VAG); Candidicide (1; RAI; TRA; X12471432); Cardiodepressant (1; RAI); Cardioprotective (1; X12571408); Chemopreventive (1; FT72:865); CNS-Depressant (f1; PR14:107; RAI); Digestive (f; MPG); Emmenagogue (f; MPG; RAI; ROE); Expectorant (f; IED); Febri-fuge (f; NPM); Gastrotonic (f; MPG); Hemostat (f1; EGG; PR14:388; VVG); Hypoglycemic (1; RAI; TRA; VAG; VVG); Hypotensive (f; RAI); Myorelaxant (1; RAI); Proaggregant (1; PR14:388); Radioprotective (1; TRA); Sedative (1; RAI; TRA); Tonic (f; MPG); Vasoconstrictor (1; PR14:388; RAI; VVG); Vulnerary (f; NPM).

### Indications:

Aging (1; VVG); Alopecia (f; MPG); Amebiasis (f2; MPG; X10782488); Amenorrhea (f; RAI; ROE); Arrhythmia (1; RAI); *Bacillus* (1; RAI); Bacteria (1; DAA; TRA; 60P); Bilioussness (f; KAB); Bleeding (f1; EGG; JFM; ROE; VVG); Blisters (f; SKJ); Boils (f; VVG; WOI); BPH (1; FNF); Bronchosis (1; WOI); Cachexia (f; KAB; WOI); Cancer (1; FT72:865); *Candida* (1; TRA; X12471432); Cardiopathy (1; VVG; X12571408); Caries (f; MD2); Catarrh (f; EFS; IED; JFM); Cerebrosis (f; KAB; WOI); Childbirth (f; IHB); Cholera (f1; DEP; JFM; MPB; NAD; NJB7:45; PR14:388; SUW); Chorea (f; KAB; WOI); *Clostridium* (1; RAI); Colds (f; MPG); Colds (f; MD2; MPG); Colic (f; JFM; KAB; MPG); Congestion (f; JFM; MPG); Conjunctivosis (f; AAB; EGG; MD2; RAI; WOI); Constipation (f; EGG; NAD); Convulsions (1; WOI); Coughs (f; EGG; MD2; RAR; VVG); Cramps (1; EGG; PR14:388; RAR; 60P); Cuts (f; NPM); Dermatoses (f; IED; JFM; ROE; ULW); Diabetes (1; DAA; ROE; TRA; VVG); Diarrhea (f12; AAB; DEP; EGG; IHB; MD2; NPM; RAI; RAR; TRA; ULW; VOD; VVG); Dropsy (f; AHL; DLZ); Dysentery (f1; AAB; DEP; IHB; JFM; NPM; VVG; X11938857); Dysmenorrhea (f; DAV; EGG; VOD; 60P); Dyspepsia (f; AAB; IED; ROE; ULW; VOD; 60P); Eczema (f; ROE); Edema (f; JFM; RAI); Enterosis (f12; EGG; JFM; MD2; RAI; ROE; VOD; X11938857); Epilepsy

(f; IHB; VOD; WOI); *Escherichia* (1; RAI; WOI); Fever (f; MD2; NPM; ULW; VVG; WBB); Fistula (f; JFM); Fungus (1; AAB; RAI); Gastrosis (f; EGG; JFM; MD2; RAR); Gingivorrhagia (f1; KAB); Gingivosis (f1; AAB; KAB; NAD; NPM; PR14:388); Gonorrhoea (f; VOD); Gout (f; DAV; NAD; RAI); Hangover (f; RAI); Headache (f; NPM); Hepatosis (f; MPG; VOD; 60P); High Blood Pressure (f1; IED; RAI; ULW; VOD); High Cholesterol (1; RAI); High Triglyceride (f; RAI); Hoarseness (f; VOD); Hysteria (f; IHB); Infection (f; IED; NAD; ULW; VVG); Inflammation (f; MPB; NPM; WBB); Ischemia (1; X12571408); Itch (f; ROE); Jaundice (f; IED); *Klebsiella* (1; NJB7:45); Laryngosis (f; RAI); *Leishmania* (f; GMJ); Leucorrhoea (f; EGG; MPB); Leukemia (1; FT72:865; IHB); Leukorrhoea (f; AAB; IHB; JFM); Malaria (1; IED; RAI; VVG; X12428427); Mange (f; JFM); *Mycobacterium* (1; AAB); Mycosis (1; RAI; TRA; X12471432); Myocardosis (1; RAI); Nausea (f1; DAV; DEP; MD2; TRA; VOD); Nephrosis (f; KAB; NPM; WOI); Nervousness (f; TRA); Neuralgia (f; DLZ); Ophthalmia (f; AAB); Pain; (f1; DLZ; EGG; NPM; PR14:107; RAI; VOD); Parasites (f; IED); Pharyngosis (f; MPB; RAI; VOD); PMS (f; RAI); Pneumonia (1; NJB7:45); Proctosis (f; DEP; KAB; NAD; WBB); Prolapse (f; DEP; KAB; NAD; WBB); *Pseudomonas* (1; RAI); Pulmonosis (f; RAI); Rashes (f; IED); Respirosis (f; IED); Rheumatism (f; NPM; VOD; WOI); Ringworm (f; JFM); Rotavirus (2; RAI; X11938857); *Salmonella* (1; DAA; TRA; WOI); Sarcina (1; AAB); Scabies (f; RAI; VAG; ZUL); *Shigella* (1; RAI; TRA; WOI); Shock (f; DAV; RAI); Sores (f; AAB; DEP; IED; JFM; ROE; VOD); Sore Throat (f; AAB; VOD); Sprains (f; WBB); *Staphylococcus* (1; AAB; TRA); Stomachache (f; AHL; JFM; MD2; SKJ; SOU); Stomatosis (f; AAB; MPB; NAD; RAI; SKJ); Swelling (f; AHL; DAV; DEP; IHB; JFM; NPM); Telangectasia (f; ROE); Thirst (f; KAB); Toothache (f; EGG; KAB; MD2; WOI); Trauma (f; VOD); Trichomonas (1; MPG); Ulcers (f; AAB; JFM; WBB); Urethrosis (f; JFM); Urogenitosis (f; ROE); Uterosis (f; JFM); Vaginosis (f; MPG; RAI); Varicosis (f; VOD); VD (f; VOD); Vertigo (f; DAV; RAI; TRA); *Vibrio* (1; PR14:388); Viruses (1; PR14:388); Worms (f; EGG; IED; MPB); Wounds (f; AAB; MD2; NPM; VVG; WBB); Yeast (1; RAI; TRA; X12471432).

### Dosages:

FNFF = !!! Fruits widely consumed; roots reportedly eaten in soups; seeds source of edible oil (FAC; JAD). 1 cup/day fruit juice for pediatric diarrhea (RAI); 9 g leaf/day in tea for diabetes (DAA); 1 cup leaf decoction 3x/day (RAI); 1–3 tsp decoction (½ oz root bark:6 oz water, boiled down to 3 oz) 3x/day for diarrhea (DEP).

- Brazilians use for anorexia, cholera, dermatosis, diarrhea, dysentery, dyspepsia, gastrosis, mucososis, laryngitis, sore throat, stomatitis, and vaginosis; children take young sprouts for diarrhea (MPB; RAI).
- Cubans take new-shoot decoction for colds (JFM), leaf teas for colds, dysentery, and dyspepsia (AHL; JTR; RAI).
- Curaçaoans take leaf/bark decoction for catarrh, leukorrhoea, metrorrhagia, and urethrosis (JFM).
- Haitians take fruit juice or leaf decoction, with sugar or salt, using the plant for colds, diarrhea, dysentery, dyspepsia, epilepsy, gonorrhoea, hemorrhoids, hepatosis, high blood pressure, infection, itch, scabies, stomachache, and wounds, gargling for hoarseness and sore throat, washing sores and varicose veins with leaf infusion (RAI; VOD).
- Madre de Dios Peruvians mix mashed bud juice with that of mango buds and lemon juice for colds, cough, and sore throat (MD2).
- Mexicans take flower decoction for bleeding and diarrhea, otherwise using plant for deafness, dermatosis, itch, scabies, stomachache, swelling, ulcers, worms, and wounds (JFM; RAI).
- Panamanian Choco Indians take ripe fruits for respiratory congestion (IED).

- Peruvians suggest astringent bark for diarrhea, hemorrhage, and stomachache, the leaves cooked with lemon for gastrostis, the powdered fruit with water for cramps and diarrhea, otherwise used for bleeding, conjunctivitis, cough, dysentery, dysmenorrhea, dyspepsia, edema, enterosis, laryngitis, pain, PMS, shock, vaginosis, vertigo, vomiting, and worms (EGG; MPG; RAI; RAR).
- Tikuna take ½ cup bark decoction or full cup leaf decoction before each meal for diarrhea (SAR).
- Venezuelans take leaf decoction for diarrhea and gastroenteritis (JFM).
- Yucatanese use leaf a/o bark decoction for fistulae, mange, and ulcers (JFM).

**Downsides:**

Do not use more than 30 days (TRA). Not for pregnant or lactating women or children (TRA). Caution with cardiac and hypoglycemic patients (RAI). As of July 2007, the FDA Poisonous Plant Database listed five titles alluding to toxicity of this species.

**MUIRA PUAMA (*Ptychopetalum olacoides* Benth.) ++****OLACACEAE****Notes:**

My leading Brazilian sources (MPB and RAI) indicate that the names and uses for closely related *Ptychopetalum olacoides* and *P. uncinatum* are almost identical (except the latter contains less luteol; MPB).

**Common Names:**

Marapama (Brazil; RAI); Marapuama (Brazil; MPB); Muirapuama (Brazil; Eng.; Scn.; AH2; CR2; MPB); Muira-Puama (Por.; USN); Muirat (Brazil; MPB); Muiratam (Brazil; RAI); Pau Homen (Brazil; RAI); Potency Wood (Eng.; RAI); Potentholz (Ger.); Potenzholz (Brazil; RAI).

**Activities:**

Adaptogenic (f1; RAI); Analgesic (f1; RAI); Antiangiogenic (1; FNF); Anticholinesterase (1; X12895682); AntiEBV (1; FNF); Antiedemic (1; FNF); Antifatigue (f1; RAI); Antiflu (1; FNF); Antihyperglycemic (1; FNF); Antiinflammatory (1; FNF); Antilithic (1; FNF); Antimalarial (1; FNF); Antioxalate (1; FNF); Antioxidant (1; X15507336); Antiperoxidant (1; FNF); Antiprostaglandin (1; FNF); Antirheumatic (1; FNF); Antispasmodic (f; RAI); Antistress (f1; RAI); Antitumor (1; FNF); Antiulcer (f1; RAI); Antiurethrotic (1; FNF); Antiviral (1; FNF); Aphrodisiac (f1; APA; CRC; NAD; PB36:327; PNC); Astringent (f1; PNC); CNS-Stimulant (f1; APA; CRC; MAD; PB36:327; RAI); Cytotoxic (1; FNF); Dopaminergic (1; PB36:327); Hypotensive (1; FNF; MPB; RAI); Memorogenic (f1; RAI); Nervine (f; APA; CRC); Neuroprotective (1; X15302233); Neurotonic (f; EFS); Noradrenergic (1; PB36:327); Orexigenic (f; CRC; FAC; MAD); Pancreatic (f; CRC); Stimulant (f1; APA; PB36:327); Tonic (f; APA; CRC; MAD).

**Indications:**

Alopecia (f; RAI); Alzheimer's (f1; RAI; X15507336); Anorexia (f; APA; FAC; PH2; RAI); Arthrosis (f1; APA; FNF); Ataxia (f; RAI); Beri-Beri (f; RAI); Cardiopathy (f; RAI); Colic (f; MAD); Cramps (f; RAI); Debility (f1; PB36:327; RAI); Dementia (1; X15507336); Depression (f; RAI); Diabetes (1; FNF); Diarrhea (f; APA; PH2; PNC); Dysentery (f; MAD; MPB); Dysmenorrhea (f; APA; CRC; MAD; MPB); Dyspepsia (f; APA; CRC; RAI); Edema (1; FNF); Enterosis (f; RAI); Fatigue (f1; RAI); Flu (f1; FNF; RAI); Frigidity (f; APA; RAI); Gastrostis (f; RAI); High Blood Pressure (1; MPB; RAI); High Cholesterol (f1; RAI); Hookworm (f;

APA; RAI); Hysteria (f; RAI); Impotence (f1; PB36:327; APA; CRC; PH2; PNC; RAI); Infection (1; FNF); Infertility (f; RAI); Inflammation (1; FNF); Lassitude (f1; PB36:327); Malaria (1; FNF); Menopause (f; RAI); Neuralgia (f; CRC; MAD); Neurasthenia (f; RAI); Neurosis (f; RAI); Obesity (f; RAI); Pain (f1; APA; RAI); Paralysis (f; CRC; MAD; MPB); PMS (f; RAI); Poliomyelitis (f; APA; RAI); Rheumatism (f; APA; CRC; MAD; MPB); Stones (1; FNF); Stress (f; RAI); Stroke (f; RAI; X15302233); Swelling (1; FNF); Trauma (f; RAI); Tremors (f1; PB36:327); Urethrosis (1; FNF); Uterosis (f; RAI); Viruses (1; FNF).

### Dosages:

FNFF = ! While I would not consider it a food, Facciola (1998) says, "The stem wood and root have a long history of use in Brazil as a general food tonic and appetite stimulant. Also becoming popular with natural food enthusiasts." 1 dropper prior to sex (APA); 15–25 drops fluid extract 2–3 day for aphrodisia (MAD); 5–8 drops tincture for dysentery (MAD); 0.5–2 ml decoction or liquid extract (10 parts dry herb:2 parts grape brandy:1 part glycerine) 3×/day (PH2); 2–4 ml liquid root extract (APA); 0.5–5 ml liquid root extract (PNC); 2–4 ml bark a/o root tincture (4:1) 2×/day (RAI); 1 cup root bark decoction daily (RAI).

- Brazilians use for alopecia, anorexia, ataxia, beri-beri, cardiopathy, cramp, debility, depressions, diarrhea, dysentery, dysmenorrhea, dyspepsia, enterosis, flu, frigidity, gastrosis, hookworm, hysteria, impotence, myasthenia, neuralgia, neurosis, paralysis, PMS, polio, rheumatism, stress, trauma, and weakness (MPB; RAI).

### Downsides:

Class 1 (AHP). "No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages" (PH2). As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

### Extracts:

Brazilian scientists Siquera et al. (1998) do not exactly call "muira puama" the major Amazon aphrodisiac. They mention that Amazon caboclos take the roots in alcohol for "nervous weakness," a syndrome with several symptoms: depression, lassitude, sexual impotence, and tremors (PB36:327). A hydroalcoholic extract at 200 mg/kg potentiates yohimbine-induced lethality, reverses reserpine-induced ptosis, and prevents apomorphine-induced stereotypy. The data suggest that "muira puama" is a CNS active, interacting with the dopaminergic or noradrenergic systems. The authors speculate that, since some of the symptoms resemble parkinsonian symptoms, roots could have antiparkinsonian effects. Their extracts did affect pharmacological models for depression, impotence, and tremors (Siquera et al., 1998). Described as one of the major active constituents, lupeol is antiangiogenic, antiedemic, anti-EBV, antifu, antihyperglycemic, antiinflammatory ( $1/3$  indomethacin), antilithic, antimalarial, antioxalate, antioxidant, antiperoxidant, antiprostaglandin, antirheumatic, antitumor, antiurethrotic, antiviral, cytotoxic, and hypotensive (FNF).

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# Q

## BITTERWOOD (*Quassia amara* L.) ++ SIMAROUBACEAE

### Illustrations:

p 92 (MAX)

### Notes:

Steinmetz (EFS) aggregates *Quassia amara* with *Picrasma excelsa*. So (EFS) common names, like so many in this family, may apply to both species and others. Arsene (1971) lists *Simaruba officinalis* as a synonym, giving “*Quassia amara*” as the Haitian common name. I list the AVP common names here, not sure what Arsene (1971) had in mind.

In Costa Rica, our guide, Jorge Fernandez, told us that this herb or shrubs stems, steeped in alcohol or water, was one of the best things out there to settle the stomach, especially after too much food or drink, both as a preventive and as a cure. Marcos Soto, who had accompanied us before as well, had pretty much the same idea, but stressed that it was good for drunkenness, hangover, and liver problems, a sort of poor man’s tico milk thistle. As a matter of fact, the guides were kind enough to purchase a specimen for me, steeping in their nasty moonshine sugarcane rum from a local bar at the bottom of the hill, near Monte Verde, where they sell it rather regularly to regular drinkers, to help prevent the consequences of overindulgence. Jorge told us also that when he lived in the bush with his Cabecaras tribe, they were involved in the moonshine business, more recently rendered illegal. Ironic that he should tell us that his father (or was it grandfather) had survived four or five different snake bite cases. “Hombre grande” also has quite a reputation for snake bite as well.

### Common Names:

Acajou Blanc (Fr.; AVP); Acia-Aç (Tur.; EFS); Acuasía (Col.; Sp.; AVP); Adjir Agatch (Tur.; AVP); Amargo (Sp.; RAI); Batakka di Basta (Ulwa; ULW); Bitter Ash (Eng.; AVP); Bitterholz (Ger.; AVP; MAD); Bitterhout (Dutch; EFS; JFM); Bitterwood (Eng.; Jam.; AVP; EFS); Bois Amer (Guad.; Haiti; Mart.; AVP); Bois Amer de Suriname (Fr.; EFS); Bois Blanc (Haiti; AVP); Bois d’Absinthe (Guad.; Mart.; AVP); Bois de Surinam (Fr.; AVP); Cassia (Cuba; AVP); Crucete (Pan.; IED; RAI); Cuasia (Mex.; Peru; Por.; AVP; PCS; SOU); Cuasia Amarga (Sp.; JFM); Cuasia de Jamaica (Sal.; AVP); Cuasia de Surinam (Cuba; JTR); Fliegenholz (Ger.; EFS); Grand Bois (Fr.; AVP); Guabito Amargo (Pan.; IED); Guabo (Cr.; AVP); Guavito (Sp.; AVP); Guavito Amargo (Pan.; IED); Guavo (Cr.; Darien; IED); Guina (Por.; AVP); Heilig-hout (Dutch; EFS); Hombre Grande (Cr.; Pan.; IED); Hombron (Cr.; IED); Kasciib Morr (Arab.; AVP); Kassia (Pol.; Rus.; AVP); Kwasi-Bita (Ma.; JFM); Kwassie-Bita (Ma.; JFM); Kwassiehout (Dutch; EFS); Kwassya (Pol.; Rus.; AVP); Leña Amarga (Pr.; AVP); Marubá (Brazil; MPB); Marupá (Brazil; MPB); Murupa (Ma.; JFM); Palo Amargo (Dor.; AVP); Palo de Cuasia (Ma.; JFM); Palo Isidoro (Ma.; Ven.; AVP; JFM); Palo Muñeco (Dor.; AHL); Pau Amarelo (Por.; JFM; RAI); Pau Quassia (Por.; JFM); Pensilero (Sal.; AVP); Puesilde (Pan.; IED); Quacia Amarga (Ma.; JFM); Quashi Bitters (Ma.; JFM); Quassia (Brazil; It.; Peru; Scn.; Swe.; AH2; AVP; MPB; SOU); Quassia Amara (Haiti; AVP); Quassia Amarga (Sp.; JFM); Quassia Amer (Fr.; AVP); Quassia de Caiena (Ma.; JFM); Quassia de la Jamaïque (Fr.;

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EFS); Quassia de Surinam (Haiti; AVP); Quassia Surinam (Ma.; JFM); Quassiehout (Dutch; EFS); Quassienholz (Ger.; AVP); Quina (Brazil; MPB); Quina Cayenna (Ma.; JFM); Quinine Cayenne (Guad.; Mart.; AVP); Quinine de Cayenne (Ma.; JFM); Quinquina Cayenne (Guad.; Mart.; AVP); Ruda (RAI); Ruhrbaumrinde (Ger.; AVP); Simarouba (Fr.; AVP); Simaruba (Cuba; It.; Swe.; AVP); Vestindisk Bitter Tree (Den.; AVP); Vliegenhout (Dutch; EFS).

### Activities:

Amebicide (1; MPG); Analgesic (f1; IED; RAI); Anthelmintic (1; PHR); Antianemic (f; HAD); Anticancer (f1; AUS; MPG; RAI); Antifertility (1; RAI; X9307052); Antiinflammatory (1; RAI); Antileukemic (1; RAI); Antimalarial (1; X10617067); Antiseptic (f; FNF; HAD); Antiulcer (1; RAI); Antiviral (1; RAI); Ascaricide (1; PHR); Astringent (f; IED); Bitter (1; PHR); Choleric (f1; PHR; PH2; RAI); Cytotoxic (1; AUS); Depurative (f; CRC; MAD; RAI); Digestive (f; PHR; PH2; RAI); Febrifuge (f; CRC; RAI); Hypotensive (f; IED); Insecticide (f1; AHL; CRC; MPB; RAI); Larvicide (1; RAI); Laxative (f; CRC; RAI); Litholytic (f; HAD); Mosquitocide (1; RAI); Narcotic (f1; CRC; EFS); Orexigenic (1; PHR; PH2); Parasiticide (1; RAI); Pediculicide (1; CRC; MBC; RAI); Piscicide (f; EFS); Pulifuge (f; RAI); Purgative (f; PHR; PH2); Secretagogue (f1; MAX; PHR; PH2); Sialagogue (f; HAD; MAX; MPG; RAI); Stomachic (f; CRC); Tonic (f; CRC; PHR; PH2; ULW); Vermifuge (f1; HAD; EFS; RAI).

### Indications:

Alcoholism (f; CRC; MAD); Amebiasis (f; MPG); Anemia (f; HAD; MBC); Anorexia (f1; MAD; PHR; RAI); Ascites (f; MAD); Backache (f; RAI); Bites (f; IED; ULW); Cancer (f1; AUS; CRC; MPG; RAI); Carcinoma (f; CRC); Cholecystosis (f; PH2); Cirrhosis (f; MAD); Colic (f; MPG); Constipation (1; CRC; RAI); Debility (f; CRC; RAI); Diabetes (f; CRC; JFM); Diarrhea (f; CRC; MAD; MPB); Dysentery (f; MPG); Dyspepsia (f; CRC; MAD; MPB; RAI); Endothelioma (f; JLH); Enterosis (f; IED); Epithelioma (f; JLH); Fever (f; CRC; IED; MAD; RAI; ULW); Gallstones (f; RAI); Gas (f; CRC; MPB); Gastrosis (f; MAD; MBC); Gonorrhea (f; CRC); Halitosis (f; HAD); Hangover (f; HAD); Heartburn (f; MAD); Hepatosis (f; CRC; IED; MAD); High Blood Pressure (f; IED); HIV (1; RAI); Intoxication (f; HAD); Jaundice (f; CRC; MAD); Kidney Stones (f; RAI); Leukemia (1; CRC; RAI); Lice (1; CRC; HHB); Malaria (f1; CRC; IED; MPB; MPG; RAI; ULW; X10617067); Measles (f; RAI); Nephrosis (f; HAD; MBC); Nervousness (1; RAI); Odontalgia (f; RAI); Ophthalmia (f; MAD); Pain (f1; IED; RAI); Parasites (f; CRC); Pediculosis (1; CRC; MBC; RAI); Sarcoma (f; JLH); Scabies (f; RAI); Snake bite (f; CRC; IED); Spasms (f; CRC); Splenosis (f; MAD); Stings (f; IED); Stomachache (f; HAD); Stones (f; HAD; MBC); Syphilis (f; MAD); Threadworm (f; RAI); Toothache (f; MPB; RAI); Typhus (f; MAD); Ulcers (f; RAI); Vaginosis (f; RAI); Viruses (f1; RAI); Worms (f1; HAD; EFS; MAX; PHR; PH2; RAI).

### Dosages:

FNFF = ! Bitter bark and wood substituted for hops in beer making; extracts used to flavor baked goods, candies, liqueurs, and soft drinks (FAC). Quoting an old Merck recommendation, 1–2 g wood/day as decoction; average dose 0.5 g 2–3×/day (AHP); 500 mg (HHB; PHR; PH2); 5 drops tincture 3×/day (MAD); steep 5 × 1 cm stick in 1 liter water or vermouth, taking a cup 3×/day for fever (JFM).

- Brazilians have cups made of and use water steeped therein for diarrhea, dysentery, dyspepsia, fever, and gas (JFM), using also for anorexia, cholecocystosis, colic, debility, enterosis, gallstones, gastrosis, hepatosis, measles, and odontalgia (RAI).
- Brazilians steep wood chips in brandy to make a tonic liqueur (FAC).
- Costa Rican Indians took wood decoction for fever (JFM), and used for diabetes, diarrhea, fever, and worms (RAI).
- Costa Ricans take decoction for diabetes and diarrhea (JFM).
- Cubans respect the wood as bitter and febrifuge (JTR).

- Garifuna take stem decoction for aches and pains, bites and stings of snakes, scorpion, and insects, fever, malaria, worms and intestinal parasites, as an astringent, and as tonic blood fortifier (JAD).
- Guatemalans use for constipation, diabetes, high blood pressure, and nervousness (RAI).
- Guyanans take powdered wood in alcohol as tonic (JFM).
- Mexicans take wood decoction as stomachic in dyspepsia and fever (JFM), also using for cholecystitis, dyspepsia, hepatitis, parasites, and worms (RAI).
- Nicaraguans take for anemia, bugbites, malaria, parasites, and worms (RAI).
- Panamanian blacks believe the bitter bark tree cures and prevents snake bite (IED).
- Panamanians drink bark tea for fever and hepatitis (IED), hyperglycemia and malaria (RAI).
- Panamanians use infusion of the wood in alcohol as a febrifuge and in liver and snake bite remedies (JAD).
- Peruvians take decoction or wine tincture of bark for fever and hepatitis (EGG), or use for dyspepsia, gall and kidney stones, tuberculosis, and worms (RAI).
- Surinamese Indians use for fever and parasites (RAI).
- Venezuelans take as tonic, also for constipation, dysentery, fever, and worms (RAI).

#### Downsides:

Class 2b (AHP). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). Contraindicated in pregnancy (PHR; PH2); taking when menstruating may produce uterine colic (JFM). Perhaps with antifertility effects in male rats (RAI). Overdose gastroirritant, leading to nausea (AHP). Extended use may damage vision (PHR). As of July 2007, the FDA Poisonous Plant Database listed six titles alluding to toxicity of this species.

#### Extracts:

Powdered bark used for debility, diabetes, diarrhea, dysentery, fever, flatulence, gonorrhea, halitosis, malaria, stomachache, and according to Hartwell (JLH), formerly of the U.S. NCI, carcinoma, endothelioma, epithelioma, and sarcoma. Even I am quoted (Duke, 1985) as saying that the root decoction is used for many of those same ailments. With animal experiments, aqueous extracts caused no mortality at doses of 500–1,000 mg/kg body weight. It was concluded that, orally, the aqueous extract may have a parasymphicomimetic effect on the intestinal muscles. Intraperitoneally, it caused piloerection (not exactly a yohimbine), a loss of posterior reflexes, diminution of motor activity, and an increase in respiratory rate, at ipr doses of 1,000 mg/kg. The wood has been used in the manufacture of moth-repellant boxes and flypaper. Hombre grande chemicals are showing promise against the white fly, *Bemisia tabaci*, which is very talented at developing resistance to conventional insecticides. Without industrial manipulation, the extracts were a contact insecticide to white flies (JAD).

### SOAP TREE (*Quillaja saponaria* Molina) + ROSACEAE

#### Illustrations:

p 434 (HH3); p 471 (MPG)

#### Synonyms:

*Quillaia poeppigii* Walp.; *Q. smegmadermos* DC.; *Q. molinae* DC.; *Smegmadermos emarginatus* Ruiz & Pav.; fide (MPG).

**Common Names:**

Bois de Panama (Fr.; HH3); Chilenischer Seifenbaum (Ger.; USN); China Bark (Eng.; HH3); Corteccia di Quillaia Saponaria (It.; HH3); Écorce de Panama (Fr.; HH3); Écorce de Quillija (Fr.; HH3); Halava Wood (Eng.; FAC); Hout Jabón de palo (Sp.; USN); Houtzeepboom (Dutch; EFS); Jabón de Palo (Sp.; USN); Kallay (Chile; MPG); Kilaya (Tur.; EFS); Kullai (Chile; MPG); Kvillaja (Den.; EFS); Murillo Bark (Eng.; HH3); Murillo's-Bark (Eng.; USN); Panama Bark (Eng.; HH3); Panamaholz (Ger.; HH3); Panamarinde (Ger.; HH3); Panamaspäne (Ger.; HH3); Quillaia Bark (Ger.; HH3); Quillaiarinde (Ger.; HH3); Quillaja (Eng.; Scn.; AH2; USN); Quillay (Chile; Sp.; HH3; MPG; USN); Seifenholz (Ger.; HH3); Seifenrindenbaum (Ger.; EFS; HH3); Soap Bark (Eng.; HH3); Soapbarktree (Eng.; USN); Soapbush (Eng.; USN); Soaptree (Eng.; CR2); Soap Tree (Eng.; HH3); Waschholz (Ger.; HH3); Waschrinde (Ger.; HH3); Zeephoutboom (Dutch; EFS).

**Activities:**

Antiexudative (f; PH2); Antiinflammatory (f1; MPG; PHR); Antiulcer (1; MPG); Cardiodepressant (1; CRC); Depurative (f; PHR); Detergent (1; CRC); Expectorant (1; CRC; HH3; MPG; PH2); Hemolytic (f; CRC); Hepatotoxic (1; AHP); Hypocholesterolemic (1; MPG); Immunostimulant (1; MPG; PH2); Lipolytic (f; PH2); Molluscicide (1; MPG); Purgative (1; PH2); Respirodepressant (1; CRC); Shampoo (1; CRC); Spermicide (1; HH3); Sternutatory (f; CRC).

**Indications:**

Alopecia (f; HH3); Athlete's Foot (f; CRC); Bronchitis (f; CRC; MPG; PHR; PH2); Congestion (1; CRC; HH3; MPG; PH2); Coughs (f; CRC; MPG; PHR; PH2); Dandruff (f; CRC; HH3; PH2); Dermatitis (f; CRC; MPG); Heart (f; CRC); High Cholesterol (1; MPG); Inflammation (f1; CRC; MPG; PHR); Obesity (f; PH2); Psoriasis (f; MPG); Respirosis (f; PHR; PH2); Seb-orrhea (f; HH3; MPG); Sores (f; CRC; MPG); Ulcers (1; MPG); Vaginosis (f; CRC); Wounds (f; MPG).

**Dosages:**

FNFF = !! Often added to clarify and create heads (foams) on commercial beverages. Also used to flavor baked goods, beverages, candies, ice creams, etc. Middle Easterners mix with citrus/sugar syrups and whip into frothy marshmallow-like confection called "natife cream" or "natef mousse" (FAC). 200 mg as tea (AHP; HH3); 1.5–5 g decoction in 150 g water 2–3×/day (MAD).

- Chileans suggest bark macerate in shampoos for seborrhea (MPG).
- Chileans take 2–3 cups/day leaf and bark tea for bronchitis and cough (MPG).
- Latinos suggest bark decoction to treat chronic sores and wounds and scaly skin (MPG).

**Downsides:**

Class 2d. Powder irritates mucosa (AHP). "No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages" (PH2). But they designate no dosage (JAD)! Overdose may trigger diarrhea, enterosis, gastrosis with stomachache, and vertigo (PHR; PH2). As of July 2007, the FDA Poisonous Plant Database listed 19 titles alluding to toxicity of this species.

**Extracts:**

Saponins antiexudative, expectorant, hypocholesterolemic, immunostimulant, lipolytic, and purgative (PH2). LD<sub>10</sub> (quillaic-acid) = >2,000 mg/kg orl cat (FNF), LD<sub>50</sub> (quillaic-acid) = 0.4 mg/kg ivn cat (HH3), LD<sub>50</sub> (quillaja saponin) = 650 mg/kg ipr mus (HH3), LD<sub>50</sub> (quillaja saponin) = 275 mg/kg ivn mus (HH3), LD<sub>50</sub> (quillaja saponin) = 1625 mg/kg orl mus (HH3).

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# R

## INKBERRY (*Randia aculeata* L.) ++

### RUBIACEAE

#### Illustrations:

p 715 (AHL)

#### Common Names:

Agalla de Costa (Cuba; AUS; JTR); Árbol de Navidad (Pr.; AUS); Bastard Lime (Bel.; AUS); Bois de Lance (Fwi.; AUS; JTR); Box Brier (Eng.; JTR); Cabainacte (Pr.; Taino; AUS; JTR); Café Cimarron (Cuba; AUS); Cambrón (Pr.; JTR); Chillbush (Bah.; AUS); Christmas Tree (Pr.; Vi.; AUS); Corallero (Col.; AUS); Cracilla (Mex.; AUS); Croc à Chien (Haiti; AHL; AUS); Crucecillo de la Costa (Mex.; AUS; JTR); Crucesita (Mex.; AUS; JTR); Cruceta Negra (Ven.; AUS); Cruceto (Col.; Mex.; Ven.; AUS; JTR); Dogwood (Eng.; JTR); Dragale (Cuba; AUS; JTR); Escambrón (Pr.; AUS; JTR); Espina Cruz (Cuba; Mex.; AUS; JTR); Fishing Rod (Eng.; JFM); Florida Boxwood (Eng.; AUS; JFM); Indigo Berry (Bah.; Jam.; Vi.; AUS); Ink (Eng.; JFM); Ink Berry (Bar.; Jam.; Pr.; AUS; USN); Juan de la Cruz (Cuba; AUS; JTR); Lancewood (Cayman I.; AUS); Leele (Curacao; AUS); Maiz Tostado (Col.; AUS; JTR); Maria Angola (Col.; AUS); Palo de Cotorro (Pr.; AUS); Palo de Espinillo (Sp.; AUS); Palo de Lele (Curacao; AUS); Papache (Mex.; AUS); Papachilla (Mex.; AUS; JTR); Pechcitam (Ma.; JFM); Peettschkitam (Bel.; Maya; AUS); Petit Coco (Guad.; AVP); Pitajoní Bravo (Cuba; AUS; JTR); Pitajoní Espinoso (Cuba; AUS; JTR); Prickly-Bush (Bah.; Jam.; AUS); Punta Real (Sp.; AUS); Raboe die Kabasi (Dwi.; AUS); Rabu di Cabai (Dwi.; JFM); Ramo de Navidad (Dor.; AHL; AUS); Resuelesuele (Dor.; AUS); Serrasuela (Dor.; AHL; AUS); Sota Caballo (Pr.; AUS); Sticky-Bush (Eng.; AUS); Stiff Cock (Bah.; AUS); Tantillo (Sp.; JFM); Tintello (Pr.; AUS); Tintero (Col.; Sal.; AUS); Tintillo (Pr.; JTR); Wakoera (Dwi.; AUS); Wakura (Ma.; JFM); White Indigo-Berry (Eng.; AUS); Wild Guava (Eng.; AUS); Wild Lime (Eng.; AUS); Wild Okra (Eng.; AUS); Yamaguey (Cuba; Taino; AUS); Yamaguey de Costa (Cuba; Taino; AUS; JTR). (Nscn).

#### Activities:

Antiseptic (f; AUS); Aphrodisiac (f; AUS); Astringent (f; AUS); Febrifuge (f; AUS; JTR); Hemostat (f; AUS).

#### Indications:

Afterbirth (f; DAW); Bleeding (f; AUS); Childbirth (f; AUS); Chills (f; AUS); Dysentery (f; AUS; DAW; JTR); Fever (f; AUS; JTR); Impotence (f; AUS); Infection (f; AUS); Osteosis (f; DAW); Snake Bite (f; DAW); Sores (f; AUS).

#### Dosages:

FNFF = ! Fruit edible (AUS).

- Bahamans (indeed West Indians) view the herb as aphrodisiac and take it for chills and fever (in the bones), using leaves in baths for infected sores, or roots boiled with Senna to expel the placenta (AUS).
- Cubans use as febrifuge and hemostat (JTR).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**DEVIL-PEPPER (*Rauwolfia tetraphylla* L.) +****APOCYNACEAE****Illustrations:**

p 376 (HH2); p 465 (L&W); p 610 (AHL)

**Synonyms:**

*Rauwolfia canescens* L.; *R. heterophylla* Roem. & Schult.; *R. hirsuta* Jacq.; *R. tomentosa* Jacq.; fide (JFM; JTR; POR; USN).

**Notes:**

In the late 1950s and early 1960s I was supported on a grant to Dr. R. E. Woodson, who was studying the alkaloids of the Apocynaceae. One of my jobs was to identify specimens collected by Felix Woytkowski who was focusing on collecting Peruvian Apocynaceae, many of which bear the common name "sanango." One of the "sanangos" I worked on became a new genus. Dr. Woodson was quite quiet about his results with such alkaloids as reserpine and canescine, etc. But that was the era when *Rauwolfia* alkaloids were being developed as tranquilizers and hypotensives. It seems to be too dangerous an herb for casual consumption.

Pierre-Noel (in Arsene, 1971) aggregated the common names for *Rauwolfia nitida* and *R. tetraphylla* so the AVP names, and probably many other names, not to mention activities and indications below, might apply to either species.

**Common Names:**

Alelí (Cuba; AVP); Amatillo (Sal.; AVP); Amazon Snakeroot (Eng.; DAV); American Serpentwood (Eng.; HH2); Bachaquero (Ma.; JFM); Barachandrika (Hindi; HH2; POR); Be-Still Tree (Eng.; POR); Bitter Ash (Pr.; L&W); Bitterbark (Pr.; AVP); Bitterbush (Vi.; AVP); Boboró (Ven.; AVP); Bois Lait Femelle (Haiti; AVP); Borrachero (Ma.; JFM); Cabalmuc (Mex.; JFM); Cabamuc (Mex.; AVP); Cabatmuc (Mex.; AVP); Cachimbo (Pr.; AVP); Cagada de Aura (Cuba; AVP); Canina de Perro (Cuba; AVP); Chalchupa (Guat.; Ma.; Sp.; JFM; POR); Chaqmuc-Ac (Mex.; JFM); Chaqmuc-Ak (Mex.; JFM); Chiriq Sanango (Peru; AVP); Cocotombo (Mex.; AVP); Cohatacó (Cr.; AVP); Comida de Culebra (Nic.; AVP); Corazón de Paloma (Cuba; AVP); Cruceto (Col.; AVP); Curarina (Ma.; JFM); Devil-Pepper (Eng.; CR2; POR; USN); Four-Leaf Devil-Pepper (Eng.; POR; USN); Fruta de Aura (Cuba; Sp.; JFM; JTR; POR); Fruta del Diablo (Pan.; AVP); Fruta de Perro (Cuba; HH2); Frutilla (Brazil; AVP); Guataco (Cr.; AVP); Guataco Colorado (Nic.; AVP; PCS); Hierba de San José (Sal.; AVP); Huevo de Gallo (Cuba; JTR; L&W); Huevo de Ratón (Cuba; JTR); Kabalmuk (Ma.; JFM); Kabal Muk (Mex.; Sp.; POR); Lecherón Negro (Arg.; AVP); Lechuga (Cuba; JTR; L&W); Lirio (Cuba; JTR); Malambo (Cuba; JTR); Marfim (Brazil; AVP); Matacooyote (Sal.; AVP); Milkbush (Bah.; Eng.; Pr.; Vi.; AVP; JTR; POR; USN); Misho Runto (Peru; DAV; EGG); Muirajussara Falsa (Brazil; AVP); Palo Amargo (Pr.; AVP; JTR); Palo Boniato (Cuba; JFM; JTR); Palo de Leche (Dor.; AHL; AVP); Palo de Leche Chiquito (Dor.; AVP); Palo de Muñeca (Pr.; AVP); Pau Marfim Falso (Brazil; AVP); Pelillo (Peru; EGG; RAR); Piñique-Piñique (Ma.; JFM); Ranango (Peru; RAR); Rauwolfie Brillante (Guad.; AVP); Sananco (Peru; EGG; RAR); Sanango (Peru; DAV; EGG); Sarna de Perro (Mex.; AVP; MAX); Señorita (Sal.; AVP); Si Ye Luo Fu Mu (China; POR); Smooth Rauwolfia (Bah.; AVP); Súcheli Blanco (Cuba;

JTR; RyM); Tèk-Ta-Men (Bel.; Maya; BNA); Túk-Ta-Men (Maya; BNA); Turacassa (Peru; EGG); Turcassa (Peru; DAV); Turucassa (Peru; RAR); Uvito (Ma.; JFM); Venenito (Col.; AVP); Veneno (Tobago; AVP); Viborillo (Nic.; AVP). (Nscn).

### Activities:

Allergenic (1; CRC); Analgesic (f; RAR); Antiaging (f; EGG; RAR); Antiedemic (f; JFM); Antirheumatic (1; WOI); Avicide (1; CRC); Curare (f; DAV); Diuretic (f; JFM); Expecto- rant (f; JFM); Hypotensive (1; CRC; X13465805); Mydriatic (1; JTR); Narcotic (1; CRC); Parasiticide (1; CRC); Poison (1; CRC); Sedative (1; X14357418); Tranquilizer (1; CRC).

### Indications:

Aging (f; EGG; RAR); Blepharosis (f; JFM); Congestion (f; JFM); Dermatitis (f; CRC; JFM; JTR; MAX); Edema (f; JFM); Erysipelas (f; CRC; JFM; MAX); Fever (f; CRC); Gin- givosis (f; CRC); Headache (f; RAR); High Blood Pressure (1; CRC; EGG; X13465805); Insomnia (1; CRC; X14357418); Malaria (f; CRC); Mange (1; CRC); Neurosis (f1; EGG; RAR); Ophthalmia (f; JFM); Pain (f; RAR); Parasites (f1; CRC; MAX); Pharyngosis (f; PCS); Preeclampsia (1; X13690132); Rheumatism (1; WOI); Snake Bite (f; CRC; VOD); Sore Throat (f; CRC; JFM; PCS); Stomatosis (f; CRC; HH2); Swelling (f; JFM); Syphilis (f; CRC; JFM; MAX); Tension (f; VOD); Toothache (f; DAV; EGG; JFM); Ulcers (f; CRC); VD (f; CRC); Wounds (f; CRC; JFM).

### Dosages:

FNFF = X. Don't take, certainly not without advice from a qualified health practitioner.

- Cubans suggest that the bark, placed in an aching tooth, will lead it to disintegrate; they treat mange in dogs with mashed fruits (JFM).
- Cubans use the latex to treat chronic dermatosis (JTR).
- Guatemalans and Salvadorans apply the febrifugal root extracts, with glycerine or oil, to dermatoses (JFM).
- Guatemalans take the decoction for malaria and snake bite (JFM).
- Haitians suggest root preparations (of *R. nitida*) to curb tension, the leaf compress for snake bite (VOD).
- Mexicans apply crushed root to erysipelas, the leaves to sores and wounds (JFM).
- Mexicans use root decoction as mouthwash or gargle for sore gums and throat (JFM).
- Peruvians, like all widely read Latinos, suggest the plant for high blood pressure and mental upsets, the classical indications for the alkaloid reserpine (EGG).
- Peruvians suggest the herb for geriatrics (EGG).
- Peruvians wash aching teeth with the leaf decoction (EGG).
- West Indians use bark decoction topically for dermatosis, internally for syphilis (JFM).
- Yucatanese, deeming the latex antiedemic, cathartic, diuretic, emetic, and expectorant, apply it to granulated eyelids (JFM).

### Downsides:

Not covered (AHP; KOM; PHR). Ingestion can reportedly cause pain in the mouth, constric- tion of the pharynx, nausea and vomiting, intense thirst, dysuria, burning gastroenteritis. Has reportedly caused fatalities. Antidote: lemon juice and emollient (MAX). As of July 2007, the FDA Poisonous Plant Database listed seven titles alluding to toxicity of this species.

**RED MANGROVE (*Rhizophora mangle* L.) +  
RHIZOPHORACEAE**

**Illustrations:**

fig 179, p 385 (L&W); p 144 (AAB)

**Synonyms:**

*Rhizophora samoensis* (Hochr.).

**Notes:**

The newly (over) promoted “Fiji titi” was identified in news releases as *Rhizophora mangle*, which at least in the Americas is an Atlantic species. My Asian sources, e.g., Kirtikar and Basu, 1975 (KAB), list the Asian species as *Rhizophora mucronata*. I suspect the chemistries and medicinal potential of the Atlantic and Pacific species are similar. Kirtikar and Basu (1975) note that Indochinese use the bark of *R. mucronata* for angina and hemorrhage (elsewhere for diabetes). An earlier Indian source (DEP) states under *R. mucronata*, “O’Shaughnessy expressly states that none of the mangroves are reputed to have any medicinal virtue ... The fruit is reported to be sweet and edible, and the juice to be made into a kind of light wine.” I am pleased to have a complete set of *The Wealth of India* (WOI, 1972), a treasured 11-volume series, my best encyclopedia of economic botany. In treating the Asian or Pacific species *R. mucronata*, one of the world’s best sources of the antiviral tannin, *Wealth of India* states “Young shoots are cooked and eaten as a vegetable. Leaves, unripe fruits and ripe fruits contain 9.1, 12.0 and 4.2 per cent of tannin, respectively” (WOI). The bark usually contains 25–35% tannin, but 48% has been reported in *Hager’s Handbuch* (HHB), my German encyclopedic source. *Hager’s Handbuch* notes that the Pacific mangrove was earlier used for diarrhea, dysentery, and hematuria (HHB). The astringency of the tannin would make this logical.

**Common Names:**

Ahilo:Ckitisí (Mikasuki; Seminole; AUS); Aili Kunnit (Cuna; AUS); American Mangrove (Eng.; Ocn.; AH2; USN); American Red Mangrove (Eng.; FAC); Apereiba (Brazil; AUS); Austernbaum (Ger.; HHB); Black Mangrove (Br. Guy.; L&W); Canaponga (Brazil; AUS; JFM); Canaro (Mex.; AUS); Candelón (Mex.; Sp.; AUS; AVP; JTR); Colorado (Bel.; AUS; BNA); Duizendbeenboom (Sur.; AUS); Duizendhout (Sur.; AUS); Guaparaiba (Brazil; Tupi; AUS); Guapereiba (Brazil; Tupi; AUS); Guarapahy (Brazil; Tupi; AUS); Gurúra (Garifuna; IED); Kakoetji-Roe (Guy.; AUS); Kakutira (Arawak; Guy.; Sur.; AUS); Kakutiru (Arawak; Guy.; Sur.; AUS; JFM); Konapo (Car.; Guy.; Sur.); Kunapo (Car.; Guy.; Sur.); Leuchterbaum (Ger.; HHB); Manga Robeira (Ma.; JFM); Mangel (Ma.; JFM); Mangel Tan (Ma.; JFM); Manggel Tan (Curacao; Dwi.; AVP; L&W); Mangle (Dor.; Mex.; Sp.; AHL; AUS; USN); Mangle Cabellero (Cr.; Vi.; AUS; AVP; L&W); Mangle Colorado (Bel.; Cuba; Dor.; Mex.; Pr.; Sp.; AAB; AUS; EFS; RyM; USN); Mangle de Chifle (Pr.; L&W); Mangle Dulce (Mex.; Peru; Ven.; AUS; AVP); Mangle Gateador (Cr.; AVP; JTR); Mangle Geli (Ecu.; AVP); Mangle Injerto (Ecu.; AVP; L&W); Mangle Jeli (Peru; AVP); Mangle Noir (Guad.; AUS; L&W); Mangle Piñon (Sp.; AUS); Mangle Prieto (Sp.; AUS); Mangle Rojo (Col.; Cuba; Sp.; Ven.; AVP; L&W; USN); Mangle Rouge (Guad.; AUS; L&W); Mangle Salado (Pan.; Ven.; AUS; AVP; L&W); Mangle Tinto (Mex.; AUS); Mangle Zapatero (Pr.; AVP; JTR; L&W); Manglier (Fr.; Guad.; Mart.; AVP); Manglier Chandelle (Guad.; Haiti; AHL; AUS; AVP; L&W); Manglier Noir (Fr.; AHL; EFS); Manglier Rouge (Guad.; Haiti; AHL; AUS; AVP); Mangro (Sur.; AVP; L&W); Mangrove (Eng.; Ger.; AVP; USN); Mangue (Por.; AVP); Mangue Bravo (Brazil; AVP); Mangue de Pendão (Brazil; AUS); Mangue de Sapoteiro (Brazil; AUS); Mangue Robeira (Brazil; AVP); Mangue Sapateiro (Brazil; AVP); Mangue Tan (Brazil; AUS); Mangue Verdaieiro (Brazil; AUS); Mangue Vermelho (Por.; AVP; USN); Manngrovebaum (Ger.; HHB); Nahnawa’ara (Mex.; Yaqui; AUS); Odd Lady Mangrove (Eng.; AUS); Old Lady Mangrove (Eng.; AUS); Palétuvier (Fr.; Guad.; Mart.; AVP); Palétuvier Rouge (Fr.; Guad.; Mart.; AUS; AVP); Pnaocj-Xnazolcam (Seri;

AUS); Purguá (Ven.; AVP); Ratimbo (Brazil; Por.; AUS; AVP); Red Mangrove (Bel.; Eng.; Fr. Guiana; Scn.; AH2; BNA; USN); Romangel (Dutch; AUS); Roode Mangrove (Creole; Guy.; AUS); Stelzenbaum (Ger.; HHB); Tabché (Bel.; Mex.; AVP; BNA); Tolastika-Tî (Creek; Seminole; AUS); Wortelboom (Dutch; Sur.; AVP; EFS); Wurzelbaum (Ger.; AVP; EFS; HHB); Xtabche (Maya; AUS); Zwamp Mangro (Sur.; AUS; AVP). (American entries diacritically prepared).

### Activities:

Antiinflammatory (f; EB28:24); Astringent (f1; AHL; DAW; EFS; RAR); Bactericide (1; AUS); Emmenagogue (f; EB28:24); Expectorant (f; DAW); Febrifuge (f; AHL; DAW; EFS); Fungicide (1; AUS); Hemostat (f; AHL; DAW; MPB); Immunostimulant (1; AUS); Insecticide (1; AUS); Intoxicant (f; DAW); Orexigenic (f; JFM); Tonic (f; DAW; JFM); Vulnerary (f12; EB28:24; X12490213).

### Indications:

Amenorrhea (f; EB28:24); Angina (f; AHL); Asthma (f; AHL; DAW; JTR); Backache (f; AUS; JFM); Bacteria (1; AUS); Bleeding (f1; AHL; DAW; JFM; MPB); Boils (f; EB28:24); Cancer (f; DAW; JLH); Ciguatera (f; AUS); Dermatitis (f; AAB; AUS; IED); Diabetes (1; AUS); Diarrhea (f; AUS; IED; JFM; MPB); Dysentery (f; AUS; JFM); Dyspepsia (f; EB28:24); Dyspnea (f; DAW); Elephantiasis (f; AUS; EB28:24; JFM); Enuresis (f; AUS; DAW; JFM); Epistaxis (f; JFM); Fever (f; AHL; DAW; EFS; HHB; JFM); Filariasis (f; EB28:24); Fungus (1; AUS); Gonorrhea (f; AUS; JFM); Hemoptysis (f; DAW); Hoarseness (f; JTR); Immunodepression (1; AUS); Infection (1; AUS); Inflammation (f; EB28:24); Jaundice (f; JFM); Leprosy (f; AAB; DAW; EFS; JFM); Leukorrhea (f; AUS; JFM); Metrorrhagia (f; JFM); Ophthalmia (f; EB28:24); Pharyngosis (f; AUS; DAW); Pregnancy (f; JFM); Pulmonosis (f; AHL); Sores (f; AAB; EB28:24; IED; JLH); Sore Throat (f; AUS; DAW; JFM); Swelling (f; AUS); Syphilis (f; AUS; JFM); Tuberculosis (f; AHL; DAW; JTR); Uterorrhagia (f; JFM); VD (f; AUS); Wounds (f12; EB28:24; X12490213).

### Dosages:

FNFF = !? Dried leaves make a good tea substitute (but Facciola (1998) advises moderation, or milk to bind tannin, on account of the mangroves high tannin content). "Roots, starch fruits, and the inner portion of the green sprout, or hypocotyl, have been used as emergency foods" (FAC). Fruit edible (RAR).

- Bahamans use the root decoction for enuresis (AUS; JFM).
- Belizeans boil a handful chopped bark in 1 gal water 10 min to bathe dermatoses, leprosy, serious sores, and swellings (AAB).
- Brazilians take decoction (5 g bark:250 g water) for 3 days for diarrhea, dysentery, epistaxis, gonorrhea, leukorrhea, and uterorrhagia (JFM).
- Brazilians used the bark for malignant ulcers (JLH).
- Cubans have animals drink mangrove sap to avoid plagues (JTR).
- Cubans take bark decoction for bleeding of lungs and trachea, and for tuberculosis (JFM; JTR).
- Cubans use bark and root decoction for asthma, hoarseness, and leprosy (JTR).
- Curaçaoans take leaf decoction (from leaves closest to the ocean) and bathe with decoction, 9 days for fish poisoning (Ciguatera?) (JFM).
- Guyanans use the bark decoction for diarrhea and dysentery (JFM).
- Mexicans take the decoction for elephantiasis, fever, hemorrhage, and sore throat (JFM).
- Nicaraguan Garifuna take the bark decoction for diarrhea, digestive disorders, skin rashes, and sores (IED).
- Yucatanese steep ~5 g powdered bark 2 hr in 150 cc water, then boil, taking 3×/day (first time on empty stomach) for leprosy and syphilis (JFM).



**Downsides:**

One source identified it as an intoxicant. Too much tannin of course can have its down sides as well as positive effects. As of July 2007, the FDA Poisonous Plant Database listed six titles alluding to toxicity of this species.

**Extracts:**

Antihyperglycemic when administered to hyperglycemic rabbits, decreasing hyperglycemic peak a/o area under glucose tolerance curve. Dry bark may contain 10–40 (–48)% tannin, aerial roots 10.5% (HHB; JFM). Activities of tannin are reported in the FNF database: anthelmintic, antitumor, anticariogenic, antidiarrheal, antidyenteric, antihepatotoxic, anti-HIV, antihypertensive, antilipolytic, antimutagenic, antiophidic, antioxidant (1/3 quercetin), antiradicular (1/3 quercetin), antioxidant IC<sub>50</sub> = 1.44 µg/ml, antiradicular 500 mg/kg/day orl mus, antirenitic, antitumor, anti-tumor-promoter, antiulcer, antiviral, bactericide, cancer-preventive, carcinogenic, chelator, cyclooxygenase-inhibitor, glucosyl-transferase inhibitor, hepatoprotective, immunosuppressant, lipoxygenase-inhibitor, MAOI, ornithine-decarboxylase-inhibitor, psychotropic, viricide, and xanthine-oxidase-inhibitor; LD 3,500 mg/kg orl mus, LD 40 mg/kg ivn mus, LD 2,260 mg/kg orl rat, LD 1,500 mg/kg scu rat (FNF).

**VIRILITY VINE (*Rhynchosia pyramidalis* (Lam.) Urb.) ++****FABACEAE****Synonyms:**

*Dolichos pyramidalis* Lam. (basionym); fide (USN).

**Common Names:**

Virility Vine (Eng.; CR2).

**Activities:**

Aphrodisiac (1; CRC); Hallucinogen (1; CRC); Narcotic (1; CRC); Poison (1; CRC).

**Indications:**

Coughs (f; CRC); Impotence (1; CRC).

**Dosages:**

FNFF = ?

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed six titles alluding to toxicity of this species.

**WILD SWEETSOP (*Rollinia mucosa* (Jacq.) Baill.) ++****ANNONACEAE****Illustrations:**

fig 202 (DAV)

**Synonyms:**

*Annona biflora*; *A. mucosa* Jacq. (basionym); *A. obtusiflora*; *A. pterocarpa*; *Rollinia curvipetala*; *R. deliciosa* Saff.; *R. orthopetala* A. DC.; *R. pulchrinervia* A. DC.; *R. sieberi* A. DC.; fide (EGG; USN).

**Common Names:**

Aguacatillo (Dor.; AHL); Anón (Dor.; AHL); Anona (Peru; Sp.; DAV; USN); Anón Cimarón (Peru; EGG); Anonilla (Peru; EGG); Biribá (Bol.; Brazil; DLZ; EGG); Biribarana (Por.; USN); Cachimán (Sp.; USN); Cachiman Crème (Fr.; USN); Cachiman Montagne (Guad.; Mart.; USN); Candón (Dor.; Sp.; AHL; USN); Candongo (Dor.; AHL; TRA); Cherimoya (Sp.; USN); Schleimapfel (Ger.; USN); Wild Sweetsop (Eng.; USN). (Nscn).

**Activities:**

Analeptic (f; MPB); Antiarachidonic (1; X11393523); Anticancer (1; X8778247; X9195761; X9370035); Antileukemic (1; TRA); Antiscorbutic (f; MPB); Antiseptic (f; MPB); Antitumor (1; TRA; X12608866; X8778247; X9195761; X9370035); Collagen-Inhibitor (1; X11393523); Cytotoxic (1; X8778247; X9195761; X9370035); Insecticide (1; TRA); Larvicide (1; TRA); PAF-Inhibitor (1; X11393523); Pediculicide (f1; TRA).

**Indications:**

Cancer (f1; JLH; TRA; X12608866; X8778247; X9195761; X9370035); Cancer, colon (1; X9370035); Colitis (f; MPB); Enterosis (f; MPB); Infection (f; MPB); Leukemia (1; TRA); Pediculosis (f1; TRA); Tumors (1; X8778247; X9195761; X9370035).

**Dosages:**

FNFF = !! Fruits eaten from Mexico to the West Indies to Peru and Bolivia (AHL; DLZ).

- Brazilians consider fruit analeptic and antiscorbutic, use ground seed for intestinal infections, bark for enterocolitis (MPB).
- Dominicans apply seeds fried in coconut oil for pediculosis (TRA).

**Downsides:**

Avoid seeds or extracts contacting the eyes (TRA).

**Extracts:**

The N-methoxycarbonyl aporphine alkaloids from the stems, romucosines-A, -B, -C, and -D, exhibited significant inhibition of collagen, arachidonic acid, and platelet-activating factor-induced platelet aggregation (X11393523). Acetogenins rollidecin-C and -D, rollinacin, rollinecin-A and -B, and rollitacin, from aqueous ethanolic and methanolic leaf fraction, exhibited cytotoxicity toward human tumor cell lines, with rollidecin-C exhibiting specificity for colon tumor cell line (HT-29) (X8778247; X9195761; X9370035).

**MANY ROOTS (*Ruellia tuberosa* L.) +****ACANTHACEAE****Synonyms:**

*Cryphiacanthus barbadensis*; *Ruellia clandestina*; *R. lactea*; *R. lysimachia*; *R. picta* G. Lodd.; *R. strepens*; *R. triflora*; fide (EGG; USN).

**Common Names:**

Batatilla (Dor.; Sp.; AHL); Chandelier (Guad.; St. Bart.; AHL); Dinamita (Cuba; JTR); Escopetilla (Ven.; AHL); Falsa Ipeca (Brazil; MPB); Fleurs Pétards (Haiti; AHL); Fulminante (Cuba; JTR); Guací (His.; AHL); Guausí (Dor.; AHL); Ipeca (Haiti; AVP); Ipéca (St. Bart.; AVP); Ipéca Bâtard (St. Bart.; AVP); Ipécacuanha Bâtard (Brazil; Fwi.; JTR; RAR); Ipecacuanha de Flor Roxa (Brazil; RAR); Juquilla (Ven.; AHL); Lía Huevos (Dor.; AHL); Many Roots (Eng.; AVP); Maravilla (Sp.; AVP); Minnie Root (Wi.; USN); Oreja de Ratón (Ven.; AHL); Patate Chandelier (Guad.; AHL); Patate Maqueque Chandelier (St. Bart.; AHL); Pensamiento Haitiano (Dor.; AHL); Pericito (Dor.; AHL); Peta (Creole; Haiti; VOD); Petit Ipéca Bâtard (Mart.; AVP); Petits Pétards (Haiti; AHL; AVP); Racine Pétards (Haiti; AHL; AVP); Raiz de Barreto (Ven.; AHL); Rasin Peta (Creole; Haiti; VOD); Salta Perico (Cuba; JTR); Ti Peta (Creole; Haiti; VOD); Tiquetaque (Dor.; Sp.; AHL); Triquetraque (Cuba; AHL); Yerba de Calentura (Pr.; JTR). (Nscn; American entries diacritically prepared).

**Activities:**

Analgesic (f; AHL); Antiseptic (f; AHL); Cicatrizant (f; JTR); Depurative (f; EB30:139); Diaphoretic (f; AHL); Diuretic (f; EGG; VOD); Emetic (f; JTR; RAR); Febrifuge (f; AHL); Litholytic (f; WOI); Purgative (f; JTR; MPB); Stomachic (f; JTR); Vulnerary (f; JTR).

**Indications:**

Asthma (f; JTR); Bleorrhagia (f; JTR); Bronchosis (f; EGG; WOI); Catarrh (f; JTR); Constipation (f; EB30:139); Coughs (f; AHL); Cystosis (f; AHL); Dermatosis (f; MPB); Dysentery (f; JTR); Dysuria (f; EGG); Fever (f; AHL; JTR); Flu (f; EB30:139; EGG); Gonorrhoea (f; DAW); Headache (f; EGG); Hepatosis (f; JTR); Infection (f; AHL); Inflammation (f; EGG); Jaundice (f; JTR); Leprosy (f; DAW; EGG); Malaria (f; JTR); Oliguria (f; EB30:139; EGG); Pain (f; AHL); Peritonitis (f; JTR); Pertussis (f; AHL); Pneumonia (f; JTR); Pulmonosis (f; JTR); Sores (f; JTR); Stones (f; WOI); Strangury (f; VOD); Teething (f; MPB); VD (f; EB30:139); Wounds (f; EGG; JTR).

**Dosages:**

FNFF = X

- Brazilians mix leaves with castor oil for skin eruptions blamed on teething (MPB).
- Cubans, considering roots and leaves diuretic, emetic, and purgative, use also for malaria, peritonitis, pneumonia, and whooping cough (JTR).
- Dominicans use macerated roots for leukorrhea and pelvic pain (VOD).
- Dominicans use the plant as analgesic, antiseptic, diaphoretic, diuretic, and febrifuge, for cough, cystosis, fever, and pertussis (AHL).
- Guadelupans use as diuretic, taking 2 tsp–1.5 tbsp dry herb/half bottle Spanish wine for jaundice (JTR).
- Haitians use leaf, flower, and root as diuretic, in decoction (VOD).
- Peruvians suggest the infusion for bronchosis, flu, gonorrhea, headache, inflammation, leprosy, oliguria, pain, and wounds (EGG).
- Venezuelans use root decoction for asthma, blennorrhagia, catarrh, and pulmonosis (JTR).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.



# S

## WEeping WILLOW (*Salix babylonica* L.) + SALICACEAE

### Illustrations:

pl 918B (KAB)

### Synonyms:

*Salix japonica* Thunb.; fide (NPM).

### Common Names:

Aravah (Heb.; ZOH); Arbol del Desmayo (Sp.; KAB); Attuppalai (Ap.; Tel.; KAB; SKJ; WOI); Babylon Weeping Willow (Eng.; USN); Bada (Pun.; DEP; WOI); Bains (Nepal; NPM); Bed (Pun.; WOI); Bedmaju (Pun.; KAB); Bes (Pun.; DEP); Besu (Pun.; DEP); Bhoosi (Nepal; DEP; KAB; WOI); Bidai (Pun.; DEP); Bisa (Kas.; Pun.; DEP; SKJ; WOI); Bitsubes (Pun.; WOI); Chinese Willow (Eng.; EFS); Desmay (Cat.; KAB); Desmayo (Sp.; EFS; KAB); Echte Trauer Weide (Ger.; EFS); Echte Treur Wilg (Ger.; EFS); Gadhains (Garhwal; Up.; SKJ); Garb (Fr.; KAB); Giur (Kas.; DEP; KAB); Guir (Kas.; NAD; WOI); Hazomalahelo (Hova; KAB); Kashir Vir (Kas.; SKJ); Katira (Pun.; SKJ; WOI); Laila (Pun.; DEP; WOI); Liu (China; EFS; KAB); Liu Zhi (Pin.; DAA); Lloron (Sp.; KAB); Majhinus (Kum.; WOI); Majnun (Hindi; Pun.; DEP; KAB; SKJ); Maju (Pun.; DEP); Momakha (Burma; DEP; KAB); Plakychaya Iva (Rus.; KAB); Quir (Kas.; SKJ); Salcie Pleteasa (Rom.; KAB); Salguiero (Por.; AVP); Salguiero Chorão (Por.; AVP; EFS); Salice Piangente (It.; KAB); Salice Plangente (It.; KAB); Sauce (Peru; Sp.; EGG; ROE); Sauce de Babilonia (Sp.; USN); Sauce Llorón (Cuba; Dor.; Peru; Pr.; Sp.; AVP; EGG; ROE; USN); Saule de Babylone (Fr.; EFS; USN); Saule Pleureur (Fr.; USN); Saule Pleurier (Fr.; EFS); Shidare-Yanagi (Japan; USN); Tissi (India; Nepal; EFS; NAD; WOI); Trauerweide (Ger.; KAB; USN); Treurwilger (Afrikaan; USN); Treuwilg (Dutch; KAB); Wala (Pun.; DEP; WOI); Weeping Willow (Eng.; Scn.; AH2; USN).

### Activities:

Anthelmintic (f; DEP; NAD); Antidote (varnish) (f; DAA); Antifeedant (1; X15228000); Antiseptic (f1; DAA; EFS; NAD; WOI); Astringent (f; DEP; WOI); Bactericide (1; WOI); Febri-fuge (f; DEP; ROE; SHJ); Fungicide (1; LMP); Insecticide (1; LMP); Tonic (f1; DEM; DEP; EFS; NAD; WOI); Vermifuge (f; DAW).

### Indications:

Abscesses (f; DAA; ROE); Alopecia (f; DEM; ROE); Arthrosis (f1; DAW; ROE; SKJ; WOI); *Bacillus* (1; WOI); Bacteria (1; WOI); Bleeding (f; DAA); Boils (f; DAA); Cancer (f; JLH); Carbuncles (f; DAA; DAW); Dandruff (f; ROE); Dermatitis (f; ROE); Diarrhea (f; DEM); Dyspnea (f; DEM); Enterosis (f; ROE); Fever (f1; DEP; ROE; SKJ; WOI); Flu (f; ROE); Fungus (1; LMP); Gonorrhoea (f; DAA; DAW); Hoarseness (f; DEM); Infection (f1; DAA; EFS; LMP; NAD; ROE; WOI); Jaundice (f; DAA; DAW); Malaria (f1; DAW; ROE); Mycosis (1; LMP); Parasites (f; DAA); Rheumatism (f1; DAW; ROE; SKJ; WOI); Sores (f; DAW; ROE); *Staphylococcus* (1; ROE); Swelling (f; DAA); Worms (f; DAW; DEP; EFS; NAD).

**Dosages:**

FNFF = ! Young leaves, shoots, and flower buds parboiled and eaten; older leaves a tea adulterant; source of a manna (FAC).

- Andeans suggest the plant can whiten the teeth (ROE).
- Andeans take bark tea for fever, enterosis, malaria, and bathe rheumatism therewith (ROE).
- Asian Indians suggest the catkins as antipyretic (SKJ), the bark as anthelmintic (DEP).
- Cherokee Indians take bark tea for alopecia, diarrhea, fever, and hoarseness (DEM).
- Chinese treat boils around the mouth with root ashes in mustard oil (LMP).
- Chinese use infusion (bark, twigs a/o leaves) for fever, gonorrhea, jaundice, and rheumatism (LMP).
- Tippy British ash the inflorescence in ointments for burns (AAH).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**Extracts:**

Bark contains 3–4% salicin (ROE).

## DIVINING SAGE (*Salvia divinorum* Epling & Játiva) +

### LAMIACEAE

**Common Names:**

Divining Sage (Eng.; CR2); Herb of the Virgin (Eng.; USN); Hierba de María (Sp.; USN); Hoja de la Pastora (Sp.; USN); Magic Mint (Eng.; X17035666).

**Activities:**

Anticholinergic (1; X16371085); Depressant (1; X16223871); Emetic (f; CRC); Hallucinogenic (1; CRC; X16905132; X17638340; X17681558); Psychotropic (1; CRC; X16905132; X17638340; X17681558); Narcotic (1; CRC); Telepathic (f; CRC).

**Indications:**

Diarrhea (f; X16371085).

**Dosages:**

FNFF = X. I score this conservatively because of recent (2007) reports of fatal “trips,” accurate or not. I experienced nothing on chewing a couple leaves (JAD).

- Mazatecs used for divination and shamanism (X17035666).

**Downsides:**

Not covered (AHP; KOM; PHR). Narcotic hallucinogen (CRC). Neoclerodane diterpene salvinorin A is a kappa-opioid hallucinogen; selective opioid antagonist (X16905132; X17638340; X17681558). As of July 2007, the FDA Poisonous Plant Database listed 12 titles alluding to toxicity of this species.

**Extracts:**

Standardized leaf extract depressed enteric cholinergic transmission in the guinea-pig ileum, likely due to salvinorin A (X16371085). In rat tests, salvinorin A dose dependently produced effects similar to treatments that cause depressive symptoms in humans, decreased extracellular dopamine, but did not affect extracellular concentrations of serotonin (5-HT) (X16223871).

**RAINTREE (*Samanea saman* (Jacq.) Merr.) ++****MIMOSACEAE****Illustrations:**

p 704 (TTS)

**Synonyms:**

*Albizia saman* (Jacq.) F. Muell.; *Inga saman* (Jacq.) Willd.; *Mimosa saman* Jacq. (basionym); *Pithecellobium saman* (Jacq.) Benth.; fide (USN).

**Notes:**

With more common names than medicinal uses, the raintree seems relatively unimportant from a medicinal point of view, but useful as a quick-growing nitrogen-fixing timber tree.

**Common Names:**

Algarroba (Cuba; L&W); Algarroba del Pais (Cuba; L&W); Algarrobo (Guat.; Mex.; Peru; L&W; RAR); Almacigo Blanco (Ma.; TTS); Árbol de la Lluvia (Peru; Sp.; EGG; RAR; SOU); Arbre de Pluie (Fr.; USN; VOD); Bordao de Velho (Por.; TTS); Camaño (Col.; L&W); Carabalí (Ven.; L&W); Carito (Ma.; TTS); Carreto (Sal.; L&W); Carreto Real (Ma.; TTS); Cenícero (Cr.; Guat.; Sal.; L&W; TTS); Cenísero (Ma.; TTS); Cenísero Claro (Ma.; TTS); Cenísero Oscuro (Ma.; TTS); Cenízaro (Ma.; TTS); Compano (Ma.; TTS); Cow Tamarind (Eng.; Wi.; L&W; USN); Daugení (Ma.; TTS); Delmonte (Dor.; AHL); Dormilón (Pr.; L&W; TTS); French Tamarind (Br. Guy.; Eng.; L&W; USN); Genízaro (Col.; L&W); Giant Tibet (Vi.; L&W); Gipio (Ma.; TTS); Gouanegoul (Haiti; AHL); Guacamayo Chico (Peru; EGG); Guango (Jam.; Pr.; L&W); Huacamayo Chico (Peru; L&W); Lara (Ven.; L&W); Licorice (Vi.; L&W); Manunaquis (Bol.; Chiquitano; DLZ); Monkey Pod (Eng.; Haw.; USN); Penoco (Bol.; DLZ); Raintree (Eng.; USN); Rain Tree (Eng.; VOD); Regenboom (Dutch; TTS); Saaman (Ma.; TTS); Sama (Ma.; TTS); Samaguare (Col.; L&W); Saman (Creole; Haiti; VOD); Samán (Dor.; Sp.; AHL; USN); Samana (Guad.; L&W); Samán Blanco (Ma.; TTS); Samán Negro (Ma.; TTS); Tabaca (Ma.; TTS); Tabaca de Monte (Ma.; TTS); Tatane (Bol.; Chiriguano; DLZ); Urero (Ven.; L&W); Urero Macho (Ma.; TTS); Urero Negro (Ma.; TTS); Zorra (Sal.; L&W; TTS). (Nscn; American entries diacritically prepared).

**Activities:**

Hemostat (f; VOD); Poison (f; DAW).

**Indications:**

Anxiety (f; VOD); Bleeding (f; VOD); Cancer, stomach (f; JLH); Constipation (f; VOD); Dysentery (f; VOD); Enterosis (f; JLH); Gastrosis (f; JLH); Infection (f; VOD); Nervousness (f; VOD); Sore Throat (f; VOD).

**Dosages:**

FNFF = ! Ripe pulp soft and sugary, with licorice-like flavors, pleasing to children. Pods ground into animal fodder.

- Haitians chew the seeds to combat throat infections (VOD).
- Haitians drink fruit decoction for anxiety and nervousness (VOD).
- Haitians drink leaf tea for constipation (f; VOD); others take boiled bark (TTS).
- Haitians eat the fruits for dysentery or hemorrhage (VOD).
- Venezuelans use the root decoction (in baths) for stomach cancer (JLH).

**Downsides:**

Not covered (AH2; KOM; PHR). As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.



**PERUVIAN ELDERBERRY (*Sambucus peruviana* Kunth) ++****ADOXACEAE****Illustrations:**

p 934 (ROE)

**Notes:**

Though I have nothing proven on this Amazonian/Andean species, I suspect it would compare well with the better studied European species. I have seen some species growing at tropical Iquitos and in temperate Andean situations in Peru and Bolivia (up to 3,900 m fide ROE).

**Common Names:**

Arrayan (Peru; EGG; SOU); Ccola (Aym.; EGG; RAR; SOU); Elderberry (Eng.; DAV); Guinda (Peru; ROE); Kjola (Aym.; EGG; RAR; SOU); Koola (Aym.; ROE); Layame (Aym.; ROE); Layan (Peru; EGG; RAR); Layan R'ayan (Peru; SOU); Pojchuva (Peru; EGG); Qhola (Aym.; Bol.; DLZ); Qhowala (Que.; DLZ); Ramrash (Peru; EGG; RAR; SOU); Rayan (Que.; USN); Sauce (Peru; RAR); Saúco (Peru; Sp.; EGG; LOR; MDD; SOU; USN); Yalan (Peru; EGG; RAR; SOU); Yolan (Peru; ROE).

**Activities:**

Analgesic (f; EGG; RAR); Antiinflammatory (f; ROE); Antilactagogue (f; EGG); Antiseptic (f; DAV); Aphrodisiac (f; EGG; ROE); Depurative (f; DAV); Diuretic (f; EGG); Emetic (f; ROE); Emollient (f; DLZ); Lactagogue (f; DAV; EGG); Purgative (f; EGG; RAR; ROE; SOU); Sudorific (f; EGG; ROE); Suppurative (f; EGG; RAR); Vulnerary (f; EGG).

**Indications:**

Abscesses (f; ROE); Acne (f; EGG); Alcoholism (f; EGG); Angina (f; ROE); Arthrosis (f; ROE); Bleeding (f; ROE); Bronchosis (f; ROE); Bruises (f; ROE); Bubo (f; EGG; SOU); Burns (f; DLZ; EGG); Cancer (f; ROE); Cardiopathy (f; ROE); Catarrh (f; ROE); Cholecocystosis (f; ROE); Colds (f; DLZ); Constipation (f; EGG; ROE); Coughs (f; EGG); Cystosis (f; EGG; SOU); Dermatitis (f; DLZ); Dropsy (f; EGG; RAR; ROE; SOU); Dyslactea (f; DAV); Dysmenorrhea (f; ROE); Edema (f; RAR); Fever (f; EGG); Flu (f; ROE); Gingivitis (f; ROE); Hemorrhoids (f; EGG; ROE); Impotence (f; EGG; ROE); Infection (f; DAV); Inflammation (f; ROE); Malaria (f; EGG); Measles (f; ROE); Metrorrhagia (f; ROE); Nephrosis (f; ROE); Pain (f; EGG; RAR); Pneumonia (f; ROE); Prostatitis (f; DLZ; EGG; ROE; SOU); Pulmonosis (f; ROE); Respirosis (f; ROE); Rheumatism (f; ROE); Scarlet Fever (f; ROE); Smallpox (f; EGG; RAR; SOU); Sore Throat (f; EGG; ROE); Stomachache (f; ROE); Stomatosis (f; EGG; ROE; SOU); Swelling (f; RAR; ROE); Toothache (f; EGG; RAR; ROE; SOU); Tumors (f; EGG; ROE); Wounds (f; EGG).

**Dosages:**

FNFF = !!! Fruits food pharmacy, eaten raw, made into jellies and wines (EGG).

- Andean Peruvians take leaf tea (mate) for respiratory ailments (ROE).
- Bolivian plaster mashed fruits onto abscesses (DLZ).
- Bolivians poultice fresh leaves onto burns to ease the pain (DLZ).
- Bolivians recommend root infusion for dropsy (DLZ).
- Bolivians use bark infusion to shorten duration of colds (DLZ).
- Peruvians suggest the depurative and sudorific floral decoction for cystosis, prostatitis, rheumatism, and smallpox (EGG).
- Peruvians use leaf tea/decoction for acne, malaria, sore throat (gargling), and tumors (EGG).

**PERUVIAN PEPPER TREE (*Schinus molle* L.) +  
ANACARDIACEAE**



**Illustrations:**

p 358–9 (DLZ)

**Synonyms:**

*Schinus angustifolius* Sesse & Moc.; *S. areira* L.; *S. bituminosus* Salisb.; *S. huigan* Molina; *S. huygan* Molina; *S. occidentalis* Sesse & Moc.; fide (MPG; POR; USN).

**Notes:**

This one has lamentably been called Californian and Peruvian in more than one language; so has *S. terebinthifolius*. I suspect most of the unvouchered work on either species cannot be positively verified. Both have been widely introduced. I suspect that Taylor (2005) was right in aggregating her accounts of *S. molle* and *terebinthifolius*.

**Common Names:**

Agua-Cará-Yba (Par.; MAX); Aguaraiiba (Arg.; POR); Aguaribai (Sp.; POR); Aguaribay (Arg.; Peru; Uru.; ARG; MPG; POR; ROE); American Mastic (Eng.; EFS); American Pepper (Eng.; EFS); Amerikaanse Peper (Dutch; EFS); Anacahuita (Uru.; MPG; POR); Árbol de la Vida (Peru; EGG); Arbol del Perú (Mex.; MAX); Árbol de Pimienta (Arg.; Sp.; Ven.; ARG; EFS); Aroaeira do Matto (Brazil; JLH); Aroaeira Salsa (Brazil; JLH); Aroeira (Brazil; Col.; MPB; MPG; JTR); Aroeira do Matto (Brazil; JLH); Aroeira Folha de Salsa (Brazil; MPB); Aroeira Mansa (Brazil; MPB); Aroeira Salsa (Brazil; JLH); Aroeirinha (Brazil; MPB); Bálsamo de los Jesuitas (Mex.; MAX); Bálsamo Sanalotodo (Col.; MPG); Brazilianpippuripuu

(Fin.; POR); Braziliaanse Peperboom (Dutch; POR); Brazilian Peppertree (Eng.; POR); Brazilian Pepper-Tree (Eng.; POR); California Peppertree (Eng.; Ocn.; AH2; CR2; FAC; GAZ); Californische Peperboom (Dutch; POR); Copalastle (Mex.; PCS); Copalquahuil (Mex.; Nahuatl; PCS); Cullash (Peru; EGG; ROE); Escobilla (Sp.; POR); Falsa Pimienta (Peru; EGG); Falso Pimentero (Sp.; POR); Faux Poivrier (Fr.; EFS; POR); Gualeguay (Arg.; ARG); Huigan (Araucano; Peru; EGG; MPG); Huiñan (Peru; EGG); Jesuit's Balsam (Mex.; RAI); Luigan (Peru; ROE); Maera (Peru; EGG); Mastixbaum (Dutch; POR); Molée des Jardins (Fr.; POR); Molle (Ecu.; Eng.; Ocn.; Par.; Peru; AH2; JTR; ROE); Molle del Incienso (Arg.; POR); Molle del Perú (Sp.; POR); Molle Hembra (Peru; ROE); Molle Macho (Peru; ROE); Muelle (Chile; Col.; MPG; PCS); Mulli (Bol.; Par.; Peru; EGG; MPG); Orcco Mulli (Peru; EGG); Pehme Skiinus (Estonia; POR); Peloncuáhuil (Mex.; MAX); Peperstruik (Dutch; POR); Perú (Mex.; EGG; MAX); Peruaanse Peperboom (Dutch; POR); Peruanischer Pfeffer (Ger.; POR); Peruanischer Pfefferbaum (Dutch; Ger.; POR); Peruansk Pebertrae (Den.; POR); Peruansk Pepparträd (Swe.; POR); Perui Bors (Hun.; POR); Perul (Mex.; MAX); Peruvian Mastic Tree (Eng.; EFS; POR); Peruvian Pepper Tree (Eng.; Scn.; AH2; CR2; POR); Peruviansk Pebertrae (Den.; POR); Pimenteira Bastarda (Sp.; EFS); Pimentero (Chile; Uru.; PCS; POR); Pimentero Falso (Sp.; EFS); Pimienta de América (Mex.; Sp.; PCS; POR); Pimienta del Perú (Peru; EGG); Pimentero Falso (Sp.; POR); Pimientillo (Arg.; POR); Pimiento de California (Cr.; PCS); Pimineto (Peru; ROE); Piru (Col.; Mex.; MAX; MPG); Poivrier d'Amérique (Fr.; EFS; POR); Poivrier d'Eau (Fr.; EFS); Puna Molle (Peru; ROE); Racimo de Rubies (Mex.; JTR); Schinuspeffper (Ger.; EFS); Terebinto (Arg.; Col.; ARG; MPG); Tzachtûmni (Mex.; Otomí; PCS); Tzachtunni (Mex.; Otomí; PCS); Umpelempe (Zulu; POR); Xâza (Mex.; Otomí; PCS); Yalanci Biber (Tur.; EFS).

### Activities:

Acaricide (1; X16022288); Acarifuge (1; X16022288); Allergenic (1; MPG); Analgesic (f; EGG); Anesthetic (f; GAZ); Antiedemic (1; X14648390); Antiinflammatory (f1; PH2; X14648390); Antiviral (f; CRC); Astringent (1; CRC; PH2); Bactericide (1; X8055554); Bitter (1; PH2); Candidicide (1; X15619579); Cicatrizant (f; EGG); Collyrium (f; CRC); Cytotoxic (1; MPG; X14648390; X11849838); Depurative (f; EGG); Diuretic (f; CRC; DLZ; EFS; GAZ; PH2); Emmenagogue (f1; CRC; MPG; WOI); Expectorant (f; EFS; ROE); Fungicide (1; PH2); Hemostat (f; EGG); Hypotensive (f1; EGG; MPG); Orexigenic (f; GAZ); Pain (f; EGG); Piscicide (f; CRC); Poison (1; MPG); Purgative (f1; CRC; EFS; MAX; PH2); Stomachic (f; CRC; EFS; PH2); Tonic (f; CRC; EFS); Vulnerary (f; CRC; PCS; PH2; ROE).

### Indications:

Adenopathy (f; MPB); Amenorrhea (f1; CRC; MPG; WOI); Anorexia (f; GAZ; PH2); Anuria (f; PH2); Aphtha (f; RAI); Aposteme (f; CRC); Arthrosis (f; PH2); *Bacillus* (1; X8055554); Bacteria (1; X8055554); Bleeding (f; EGG; MPB; ROE); Bleennorrhagia (f; CRC; MPB; PH2; ROE); Bronchosis (f; CRC; GAZ; JTR; PCS); Bubo (f; MPB); Burns (f; ROE); Cancer (f1; JLH; X11849838); Cancer, foot (f; JLH); Cancer, liver (f1; JLH; X11849838); *Candida* (1; X15619579); Carcinoma (1; X11849838); Caries (f; ROE); Cataracts (f; CRC; JTR; MAX; ROE); Catarrh (f; ROE); Childbirth (f; ROE); Colds (f; PH2; ROE); Colic (f; MPG); Conjunctivitis (f; PH2; ROE); Constipation (f; GAZ); Cornea (f; MAX); Coughs (f; DLZ; GAZ; ROE); Cramps (f; MPB; ROE); Cystosis (f; GAZ); Dermatitis (f; PH2; ROE); Diarrhea (f; CRC; ROE); Dropsy (f; EGG); Dysentery (f; MPB; ROE); Dysmenorrhea (f; CRC; MPG); Dyspepsia (f; GAZ; JTR); Dysuria (f; HH2); Edema (f1; MPG; X14648390); *Escherichia* (1; X8055554); Fracture (f; ROE); Fungus (1; X15619579); Gastrosis (f; PH2); Gingivitis (f; CRC; EFS; MAX; WOI); Gonorrhoea (f; CRC; JTR; MAX; MPB; ROE); Gout (f; CRC; WOI); Headache (f; EGG); Hemoptysis (f; CRC); Hepatosis (f1; EGG; X11849838); High Blood Pressure (f1; EGG; MPG; PH2; ROE); Hoarseness (f; DLZ); Infection (1; PH2; X15619579); Inflammation (f1; MPG; PH2; X14648390); Ischia (f; HH2); *Klebsiella* (1; X8055554); Leu-

korrhea (f; EGG; MPB; PH2); Mucososis (1; PH2); Myalgia (f; PH2); Mycosis (1; MPG; X15619579); Nausea (f; PH2; ROE); Neuralgia (f; GAZ); Odontosis (f; PH2); Oliguria (f; MAX); Ophthalmia (f; CRC; MPB); Orchosis (f; MPB); Pain (f; DLZ; PH2); Parasites (1; MPG); Pharyngosis (f; HH2; PH2); Pneumonia (f; ROE); Prolapse (f; CRC; PH2; ROE); *Pseudomonas* (1; MPG); Puerperium (f; ROE); Pyorrhea (f; DLZ; MPG); Respirosis (f; EGG; PH2); Rheumatism (f; CRC; EGG; MPB; PH2; ROE); Sciatica (f; GAZ); Serratia (1; X8055554); Sores (f; CRC; HH2; MPG); Sore Throat (f; EGG; PH2; ROE); Spasms (f; EGG); Sprains (f; ROE); *Staphylococcus* (1; MPG); Stomatosis (f; MAX); Swelling (f; CRC; PCS; PH2; ROE); Toothache (f; DLZ; EGG); Tuberculosis (f; CRC; HH2; MPG); Tumors (f; JLH); Ulcers (f; CRC); Urethrosis (f; CRC; GAZ; HH2); Urogenitosis (f; CRC; HH2; MAX); Uterosis (f; CRC; PH2; ROE); Vaginosis (f; GAZ); VD (f; CRC; WOI); Vomiting (f; PH2); Warts (f; JLH); Water Retention (f; HH2); Worms (f; ROE); Wounds (f; CRC; PH2); Yeast (1; X15619579).

### Dosages:

FNFF = !! Dry roasted fruits used like pepper; fruits used in chichas, horchatas, and wines (FAC). For gargles and external washes 30 g drug/500 ml water.

- Bolivians suggest leaf tea as diuretic, leaf decoction as mouthwash for pyorrhea, the fruit tincture to massage rheumatic pains, and the resin for aching caries (DLZ).
- Brazilians use the bark for amenorrhea, dysentery, inflammation, leucorrhea, and tumors, the resin for adenitis, blennorrhagia, buboes, constipation, and orchitis, the leaf tea for bleeding, gonorrhoea, muscle spasm, ophthalmia, and rheumatism (JLH; MPB).
- Callaway use leaves on rheumatism and sciatica (MPG).
- Mexicans apply the resin as a purgative, to retard cataracts, and use for gastrointestinal and venereal ailments, using the fruits for bronchoses, and the plant for aphtha, asthma, bronchitis, colic, conjunctivitis, constipation, dermatosis, dyspepsia, flu, gingivitis, gonorrhoea, rheumatism, stomachache, toothache, tuberculosis, tumors, VD, warts, and wounds (JTR; RAI).
- Mexicans prepare Jesuit's balsam by boiling the leaves until the decoction thickens, then adding 80% alcohol, using to treat sores and wounds (MAX).
- Paraguayans use the plant to treat blennorrhagia, dermatoses, dysmenorrhoea, gonorrhoea, itch, nephritic colic, oliguria, renal calculus, sores, urethritis, and wounds (JTR; MAX; RAI).
- Peruvians apply resin to the forehead for headache, and tamp the resin into caries to kill the nerves (EGG).
- Peruvians suggest drinking the leaf infusion for rheumatism, gargling leaf decoction for sore throat (EGG).
- Peruvians take flower/fruit/leaf tea to lower the blood pressure (EGG).
- Uruguayans use the resin as analgesic, antirheumatic, antiseptic, and vulnerary, otherwise for dysmenorrhoea, infections, rheumatism, and wounds (MPG; RAI).

### Downsides:

Class 1. GI irritant; though toxic in quantity, still used as spice (AHP). "No health hazards are known in conjunction with the proper administration of designated therapeutic dosages" (PH2). But they designate no dosage (JAD)! Children intoxicated by fruits, with diarrhea, gastroenterosis, headache, lassitude, and nausea (CRC). Do not take if pregnant or lactating, or with obstructive urinary stones, edema due to impaired heart, nephrosis. As of July 2007, the FDA Poisonous Plant Database listed 19 titles alluding to toxicity of this species.

### Extracts:

The EO is active against *Pseudomonas* and *Staphylococcus* and fungi *Aspergillus*, *Microsporum*, and *Trichophyllum* (MPG). LD50 (EO) = >5,000 mg/kg orl rat (HH2).

**BRAZILIAN PEPPERTREE (*Schinus terebinthifolius* Raddi) +****ANACARDIACEAE****Illustrations:**

p 441 (LWW)

**Notes:**

Taylor (2005) conveniently aggregates three confused species saying they are all called peppertrees, but not saying that *S. terebinthifolius* is called “Brazilian pepper tree,” while *S. molle* is called the “Peruvian pepper tree” (AH2). Small wonder; both species have been called both. Granted the Brazilian tends to be in Atlantic South America, the Peruvian in Pacific. Regrettably, elements of all three occur in Brazil. The USDA (for what Taylor (RAI) apparently calls *S. aroeira*) treats those as follows: *Schinus aroeira* L. (= *S. molle* var. *areira* (L.) DC.), *S. aroeira* Vell. (= *S. terebinthifolius* var. *rhoifolius* (Mart.) Engl.). All have been introduced elsewhere, often with disastrous results. RAI entries below refer to data that Taylor (2005) mentioned for “Brazilian pepper tree.” I suspect that when all be known, most of the indications apply across the board. In Argentina, the species of concern here may be keyed:

Leaflets 5–7 pair, broadly lanceovate, to 4 cm long, 1–1.5 cm broad . . . . .  
 . . . . . *S. terebinthifolius*  
 Leaflets 5–16 pair, lanceolate to 5 cm long, 0.5–1 cm broad . . . . .  
 . . . . . *S. mollis* (incl. var. *areira*)

**Common Names:**

Aroeira (Brazil; POR); Aroeira da Praia (Brazil; POR); Aroeira Mansa (Brazil; MPB; POR); Aroeira Pimenteira (Brazil; POR); Aroeira Vermelha (Brazil; JTR); Arveira (Sp.; POR); Brasiliaanse Peperboom (Afrikaans; USN); Brasilianischer Pfeffer (Ger.; POR); Brazillbors (Hun.; POR); Brazilian Peppertree (Eng.; Scn.; AH2; CR2; HOS; USN); Cambuí (Brazil; MPB); Chichita (Arg.; ARG; LWW); Christmasberry (Eng.; Ocn.; AH2; HOS); Christmasberry Tree (Eng.; USN); Copal (Cuba; Sp.; POR; USN); Faux Poivrier (Fr.; USN); Faux Poivrier du Brésil (Fr.; POR); Florida Holly (Eng.; HOS); Fruta de Sabiá (Brazil; MPB); Pimenta Rosa (Por.; POR); Pimenta de Brazil (Sp.; USN); Pink Berry (Eng.; Ocn.; AH2; GAZ); Pink Peppercorn (Eng.; FAC); Pirul (Sp.; POR); Poivre de Bourbon (Fr.; POR); Poivre Rose (Fr.; Réunion; POR); Rød Peber (Den.; POR); Rosa Pfeffer (Ger.; POR); Rósapipar (Iceland; POR); Rosépeppar (Swe.; POR); Rosé-Pfeffer (Ger.; POR); Roze Peber (Dutch; POR); Rózsaszín Bors (Hun.; POR); Schinus Fistashkolistnyi (Rus.; POR); Terebinto (Arg.; Sp.; POR), Turbinto (Sp.; POR); Xiao Ru Xiang (China; POR).

**Activities:**

Allergenic (1; LWW); Analgesic (1; HOS; RAI); Antiaggregant (1; HOS); Anticancer (f; HH2); Antidepressant (f; RAI); Antiedemic (1; HH2); Antiestrogenic (1; HOS); Antifibrosarcomic (1; HOS); Antihepatotoxic (f; HOS); AntiHIV (1; HOS); Antiinflammatory (f; HOS; X14556225); Antileukemic (1; HOS); Antileukotriene (1; HOS); Antilipoperoxidant (1; HOS); Antimelanomic (1; HOS); Antimutagenic (1; HOS); Antinitrosaminic (1; HOS); Antioxidant (1; HOS; X14556225); Antiperoxidant (1; HOS); Antiproliferant (1; HOS); Antiseptic (1; CRC; HH2; RAI; X15619579); Antispasmodic (1; RAI); Antitumor (1; HOS; RAI); Antiviral (f1; CRC; HOS; RAI; WOI); Aphrodisiac (f; CRC); Apoptotic (1; HOS); Astringent (f; CRC; HH2; RAI); Bactericide (f; CRC; HOS; RAI); Candidicide (1; RAI; X15619579); Cicatrizant (f; X14556225); COX-2-Inhibitor (1; HOS); Cyclooxygenase-Inhibitor (1; HOS); Cytotoxic (1; HOS); Digestive (f; RAI); Diuretic (f1; HH2; RAI); Fungicide (1; RAI); Genotoxic (1; X14556225); Hepatoprotective (1; HOS); Hypotensive (1; RAI); Lipoxigenase-Inhibitor (1; HOS); Mast-Cell-Stabilizer (1; HOS); Mutagenic (1; X14556225); Ornithine-Decarboxylase-Inhibitor (1; HOS); P450-Inducer (1; HOS); Phospholipase-A2-Inhibitor (1; X7576451); PKC-Inhibitor (1; HOS); PTK-Inhibitor (1; HOS); Stimulant (f; CRC; RAI; WOI); Tonic (f; CRC; RAI); Topoisomerase-II-Inhibitor (1; HOS); Tyrosine-Kinase-Inhibitor (1; HOS); Uterocontractant (1; RAI); Vulnerary (1; X11995943); Xanthine-Oxidase-Inhibitor (1; X2723668).

**Indications:**

Adenopathy (f; CRC); Alveolitis (1; X11995943); Arrhythmia (f; RAI); Arthrosis (f; CRC); Atony (f; CRC); *Bacillus* (1; X11995943); Bacteria (1; CRC; X11995943); Bleeding (f; RAI); Bronchosis (f; CRC; RAI); Bruises (f; CRC); Cancer, foot (f; HOS); Cancer, liver (1; RAI); *Candida* (1; RAI; X15619579); Cardiopathy (f; RAI); Cervicitis (1; RAI); Chills (f; CRC); Colds (f; RAI); Conjunctivitis (f; RAI); Cornea (f; MPB); Cramps (1; RAI); Depression (f; RAI); Dermatitis (f; CRC); Diarrhea (f; CRC); Dry Socket (1; X11995943); Dysmenorrhea (f; RAI); Enterococcus (1; X11995943); Enterosis (f; CRC); Flu (f; RAI); Fracture (f; RAI); Frigidity (f; CRC); Fungus (1; RAI); Ganglion (f; CRC); Gingivitis (f; RAI); Gonorrhea (f; RAI); Gout (f; CRC; RAI); Hemoptysis (f; CRC; MPB); High Blood Pressure (f1; RAI); Impotence (f; CRC); Infection (f1; CRC; RAI; WOI); Inflammation (f; RAI); Leprosy (f; MPB); Metrorrhagia (f; RAI); Mycosis (1; RAI); Neuralgia (f; MPB); Ophthalmia (f; RAI); Pain (f1; CRC; HOS; RAI); *Pseudomonas* (f; RAI); Respiritis (f; RAI); Rheumatism (f; CRC; HOS; RAI; WOI); Sciatica (f; CRC; HOS); Sores (f; CRC; HH2; HOS; RAI); *Staphylococcus* (f; RAI); *Streptococcus* (1; X11995943); Swelling (f; CRC; RAI); Syphilis (f; CRC; RAI; WOI); Tendinitis (f; CRC); Tuberculosis (f; RAI); Tumors (f; CRC); Ulcers (f; CRC; RAI); Urethritis (f; RAI); Urogenitosis (f; RAI); Uterosis (f; MPB); Vaginitis (1; RAI); VD (f; RAI); Viruses (f1; CRC; RAI); Warts (f; RAI); Wounds (f; CRC; HH2); Yeast (1; X15619579).

**Dosages:**

FNFF = ! Berries used as pepper substitute, but not recommended. See downsides below.

- Amazonian Brazilians use bark tea as laxative, the bark/leaf tea as antidepressant and stimulant (RAI).
- Argentinians use leaf decoction for menstrual, respiratory, and urinary tract problems (RAI), the plant or its resin for diarrhea, dysmenorrhea, and wounds.
- Brazilians use the resin for corneal problems, leprosy, and tumors, the bark a/o leaves for blood ailments, cardiopathy, dysmenorrhea, fever, gout, hemoptysis, high blood pressure, infection, inflammation, metrorrhagia, neuralgia, rheumatism, syphilis, and uteritis (MPG; RAI).
- South Africans use leaf tea for colds and coughs, the decoction for arrhythmia, cold, depression, gout, high blood pressure, and inflammation (RAI).

**Downsides:**

Class 1, as “pink pepper.” GI irritant (AHP). Though toxic in quantity, sold as a spice (AHP). “No health hazards are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). But they designate no dosage (JAD)! Alkyl phenols may be irritant (PH2). May intoxicate birds, fish, or horses, causing diarrhea, hemorrhoids, and nausea in humans (CRC). With demonstrated uterocontractant activity, should not be used in pregnancy. As of July 2007, the FDA Poisonous Plant Database listed 36 titles alluding to toxicity of this species.

**CANCHALAGUA (*Schkuhria pinnata* (Lam.) Kuntze ex Thell.) +  
ASTERACEAE**

**Illustrations:**

fig 39 (MPG)

**Synonyms:**

*Amblyopappus mendocinus* Phil.; *Hopkirkia anthemoides* DC.; *Mieria virgata* La Llave; *Pectis pinnata* Lam. [= *Schkuhria pinnata* var. *pinnata*]; *Rothia pinnata* (Lam.) Kuntze.; *Schkuhria abrotanoides* Roth.; *S. anthemioidea* (DC.) Coult. [= *S. pinnata* var. *wislizeni*]; *S. bonariensis* H. & A.; *S. pinnata* var. *guatemalensis* (Rydb.) McVaugh [= *S. pinnata* var. *wislizeni*]; *S. wislizeni* A. Gray [= *S. pinnata* var. *wislizeni*]; *S. wrightii* A. Gray [= *S. pinnata* var. *wislizeni*]; *S. virgata* (La Llave) DC.; *Tetracarpum guatemalense* Rydb. [= *S. pinnata* var. *wislizeni*]; fide (MPG; RA2; USN).

**Notes:**

Roersch (1994) data below (as ROE) referred to very similar *S. octoaristata* DC. (fig. p. 593 in ROE), with many of the same common names and indications.

Naturalized in North America and included in the *Materia Medica* of the New Mexican Pharmacopeia, printed in the *American Journal of Pharmacy* in 1885, noted to have antispasmodic activity (RA2).

**Common Names:**

Akech (RA2); Anisillo Cimarron (RA2); Azureta (RA2); Cachalagua (Aym.; Bol.; Que.; MPG); Canchalagua (Arg.; Bol.; Peru; EGG; MPG; RA2); Canchalahua (RA2); Dwarf Marigold (RA2); Dwarf Mexican Marigold (RA2); Escoba de Anisillo (RA2); Escobilla (RA2); Jayajpichana (RA2); Jayak Pichana (Bol.; Que.; MPG); Kanchalawa (Aym.; Bol.; Que.; DLZ; RA2); Karatataraku Putsutiri (RA2); Khakibush (RA2); Kuti Pichaña (Peru; ROE); Mata Pulgas (Arg.; MPG; RA2); Onyalo Biro (RA2); Pinnate False Threadleaf (RA2); Pinqui-Pichana (RA2); Piqui Pichana (Bol.; Peru; Que.; EGG; MPG); Schkuhria (RA2); Starry Skies (RA2); Tacote (RA2); Yellow Tumbleweed (RA2). (Nscn).

**Activities:**

Antiallergic (f; MPG); Antidiabetic (f; MPG), Antiinflammatory (f1; MPG; RA2); Antimalarial (f1; MPG; RA2; X17486688); Antispasmodic (1; RA2); Antitussive (f; RA2); Antiyeast (1; RA2); Bactericide (1; MPG; RA2); Capillary Tonic (f; RA2); Cicatrizing (f; MPG); Cytotoxic (1; X17486688); Depurative (f; MPG; RA2); Detoxicant (f; MPG); Digestive (f; MPG; RA2); Diuretic (f; MPG; RA2); Fungicide (1; RA2); Hypoglycemic (f; EGG; RA2); Insecticide (f; DLZ); Lipolytic (f; MPG); NF-kappaB-Inhibitor (1; RA2); NO-Inhibitor (1; RA2); Pediculicide (f; RA2); Plasmocidic (1; RA2; X17486688); Pulicide (f; MPG; RA2); Stomachic (f; RA2); Styptic (f; RA2); Vulnerary (f; MPG; RA2).

**Indications:**

Abscesses (f; MPG); Acne (f; EGG; RA2); Allergies (f; MPG; RA2); *Bacillus* (1; MPG); Bacteria (f1; MPG; RA2); Bilioussness (f; ROE); Bleeding (f; RA2); Calculus (f; ROE); Chancre (f; ROE); Childbirth (f; ROE); Coughs (f; RA2); Cystosis (f; DLZ); Dermatitis (f; RA2); Diabetes (f; EGG; MPG; RA2); Digestion (f; RA2); Dysmenorrhea (f; ROE); Dyspepsia (f; MPG); Eczema (f; RA2); Enterosis (f; ROE); Fungus (1; RA2); Gastrosis (f; RA2; ROE); Hepatosis (f; RA2; ROE); Hyperglycemia (f; RA2); Infection (f1; MPG; RA2); Inflammation (f1; MPG; RA2); Malaria (f1; DLZ; MPG; RA2; X17486688); Mycosis (1; RA2); Nephrosis (f; DLZ); Obesity (f; DLZ; MPG); Oliguria (f; MPG); Ophthalmia (f; ROE); Pediculosis (f; RA2); Prostatitis (f; RA2); Pulmonosis (f; ROE); Respirosis (f; ROE); Rheumatism (f; RA2); Sores (f; MPG); Spasms (1; RA2); Splinters (f; EGG); Stomachache (f; RA2; ROE); Stomatosis (f; MPG); Stones (f; ROE); Tumors (f; ROE); UTIs (f; RA2); Wounds (f; MPG; RA2); Yeast (f1; RA2); Yellow Fever (f; ROE).

**Dosages:**

FNFF = X. 1 cup shoot or plant infusion 3×/day as blood cleanser and diuretic (RA2); 1–2 g capsule 2×/day for acne and as antimalarial (RA2).

- Africans use for gastrosis, malaria, and stomachaches (RA2).
- Altenos Indians take the plant decoction for malaria (RA2).
- Americans use the plant as an antispasmodic (RA2).
- Andean Peruvians use the plant (usually tea) of *S. octoaristata* for calculus, chancre, childbirth, dysmenorrhea, enterosis, gastrosis, ophthalmia, stomachache, tumors, and yellow fever (ROE).
- Argentinians take leaf decoction for diarrhea, respiratory infection, and UTIs; the plant decoction as antibiotic and vulnerary (RA2).
- Argentinians use tea as a slimming agent and depurative (MPG).
- Bolivians dust with powdered plant to deter fleas (RA2).
- Bolivians recommend drinking the root decoction for obesity (DLZ).
- Bolivians use decoction for malaria, the tea for cystosis and nephrosis (DLZ; MPG).
- Kenyans take plant decoction for gastrosis and stomachaches (RA2).
- Ketchwa use infusion or decoction for acne, eczema, dermatitis, and as a blood cleanser (RA2).
- Latinos use the powdered plant to repel or kill fleas and lice (RA2).
- Mexicans take plant decoction or infusion for digestive complaints (RA2).
- Paraguayans use the plant as an insecticide (RA2).
- Peruvians drink tea (15 g fresh plant/l water) for vaginal yeast and urine insufficiency, and as a digestive aid; the root decoction for obesity (RA2).
- Peruvians take the plant decoction a/o infusion as antiinflammatory, antitussive, capillary tonic, depurative, digestive, diuretic, hypoglycemic, for allergies, dermatoses, diabetes, digestive problems, gas, kidney and liver disorders, malaria, prostatitis, rheumatism, UTIs, and to cleanse the blood; using topically for lice, as a styptic for wounds, and with chanca piedra and llanten for acne (RA2).
- Peruvians use for fleas, hormone regulation, and lice (RA2).
- Peruvians use the flowering shoot tea (during fasting) as anti-allergic, antidiabetic, anti-inflammatory, antimalarial, depurative, detoxicant, digestive, diuretic, for clearing the skin of acne, and splinters (EGG; MPG).
- Zimbabweans take decoction or macerated leaf for malaria (MPG; RA2).

**Downsides:**

None reported (RA2).



**Extracts:**

Methanolic plant extract exhibited high antiplasmodial activity (IC<sub>50</sub> < 5 µg/ml) against chloroquine-sensitive (D6) and -resistant (W2) *Plasmodium falciparum* clones (X17486688). Ethanollic plant extract exhibited antimalarial activity in animal tests (RA2). Whole plant a/o leaf extracts active against *Bacillus*, several fungus, mold and yeast strains (RA2). Costunolide reported to inhibit NF-kappaB and NO production (RA2).

**SABADILLA (*Schoenocaulon officinale* (Schltdl. & Cham.) A. Gray ex Benth.) +****LILIACEAE****Synonyms:**

*Veratrum officinale* Schltdl. & Cham. (basonym); fide (USN).

**Common Names:**

Cevadilla (Sp.; USN); Cévadille (Fr.; USN); Sabadilla (Eng.; USN); Sabadillgermer (Ger.; USN).

**Activities:**

Anesthetic (1; CRC); Cathartic (f; CRC); Emetic (f; CRC); Hypotensive (1; CRC); Insecticide (1; CRC); Neurotonic (f; CRC); Pediculicide (1; CRC); Poison (1; CRC); Sternutatory (f; CRC); Vermifuge (f; CRC).

**Indications:**

Angina (f; CRC); Arthrosis (f; CRC); Cancer (f; CRC); Gout (f; CRC); Flu (f; CRC); Headache (f; CRC); High Blood Pressure (f; CRC); Hysteria (f; CRC); Inflammation (f; CRC); Migraine (f; CRC); Neuralgia (f; CRC); Neurasthenia (f; CRC); Pain (1; CRC); Pediculosis (1; CRC); Rheumatism (f; CRC); Worms (f; CRC).

**Dosages:**

FNFF = ?

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed 13 titles alluding to toxicity of this species.

**SWEET BROOM (*Scoparia dulcis* L.) ++****SCROPHULARIACEAE****Notes:**

In the Afro-Brazilian Candomblé religion, this herb is associated with the deity Oxum (VOD; quoting Voeks,1997), and used in prayers to avert the "evil eye."

**Common Names:**

Albacadira (Chiriguano; DLZ); Aniseed (Ma.; JFM); Anise-Seed Bush (Bel.; BNA); Anisillo (Nic.; AUS; RAI); Arrocillo (Ca.; AUS); Azafran de la Tierra (Ma.; AUS; JFM); Balai Doux (Haiti; AUS; AVP); Balai Savane (Guad.; Mart.; AUS); Balais Doux (Guad.; AVP); Balé Dou (Creole; Haiti; VOD); Balé Sauvaj (Creole; Haiti; VOD); Bassourinha (Ma.; JFM); Berokepi (Amarakaeri; MD2); Bezemkruid (Ma.; JFM); Bezemkruit (Dwi.; AUS); Bitterbroom (Eng.; RAI); Boroemia (Sa.; RAI); Broomweed (Eng.; AUS); Broomwort (Tex.; AUS); Brum Sirpi (Miskito; Nic.; AUS; RAI); Brum Tahplira (Miskito; Nic.; AUS); Bruscón (Ma.; Ven.; AUS; JFM); Bunga Baik Salam (Malaya; AUS); Bunyiga (Dor.; AHL; AVP); Cancharagua (Dor.;

AVP); Cha de Marajo (Por.; GMJ); Cha Padang (Malaya; AUS); Chile de Pajaro (Ma.; Mex.; AUS; JFM); Color (Col.; Ma.; AUS; JFM); Culantrella (Bel.; BNA); Culantrillo (Bel.; Pr.; Sal.; AUS; AVP); Culantro (Ma.; Sal.; AUS; JFM); Culantro de Pollo (Ca.; AUS); Culantro Montes (Ma.; JFM); Culantro-Pim (Bel.; AUS; BNA); Escoba Amarga (Ma.; Pr.; AUS; JFM); Escoba de Castilla (Cr.; AUS; MPG); Escoba Dulce (Pan.; MPG; TBC); Escobeta (Ma.; JFM); Escobilla (Col.; Cuba; Hon.; Peru; Sp.; Ven.; AUS; CR2; RAI; SAR; USN); Escobilla Amarga (Pan.; MPG; TBC); Escobilla del Peru (Peru; SOU); Escobilla Menuda (Sp.; AVP); Escobillo Menudita (Col.; Ma.; AUS; JFM); Escobito Amarga (Ma.; JFM); Escobo Dulce (Col.; AUS; AVP); Haraspata (Miskito; Nic.; AUS); Herbe à Balai (Fwi.; AUS); Hierba del Golfe (Mex.; AUS); Hierba del Golpe (Mex.; AVP); Hierba de Pajarito (Sp.; AUS); Iglesia Kiwa (Col.; SAR); Ilishia Kiwa (Col.; SAR); Kawissey (Pailkur; GMJ); Komayiripini (Matsigenka; MD2); Kotsuje (Piro; Yine; MD2; RAR); Kotsuje Kshanate (Piro; RAR); Kshanate (Piro; Yine; MD2); Kukibiu Edan (Arawak; Sur.; AUS); Licorice Weed (Pr.; AUS; AVP; RAI); Mariquita (Cr.; MPG); Mashin Tarin Rao (Shipibo/Conibo; MD2); Mastuèrzo (Cr.; Cuba; Dor.; His.; Pr.; AUS; AVP; RAI); Miel de Tierra (Arg.; AUS); Ñucñu-Pichana (Peru; AUS); Ñuñco-Pichana (Peru; RAI); Nyucnyu Pichana (Peru; SOU); Orozus (Dor.; Pr.; AVP); Orozus de Pasto (Ma.; Pr.; AUS; JFM); Paraguay (Col.; Guarani; AUS; JFM); Petit Balai (Fr. Guy.; AVP); Pichanga Dulce (Ma.; Col.; AUS; JFM); Piki Pichana (Bol.; Que.; DLZ); Pineridge Aniseed (Ma.; JFM); Piqui Pichana (Peru; AUS; RAI; SOU); Riceweed (Eng.; Nic.; AUS); Roma (Sudan; AVP); Scoparia a Trois Feuilles (Creole; Haiti; VOD); Shikiskiki Tokon (Car.; Sur.; AUS); Siebie Wiwirie (Sur.; AUS); Sirsaika (Miskito; Nic.; AUS); Sisibi Wiwiri (Ma.; AUS; JFM); Sur'Préjsi (Paya; Nic.; AUS); Sweet Broom (Eng.; CR2; USN); Sweet Coparia (Ma.; JFM); Sweet Scented Broom (Eng.; Jam.; AVP; VOD); Switi (Sur.; AUS); Tapeçaba (Brazil; Ma.; AUS; JFM); Tapeçava (Brazil; USN); Tapixaba (Brazil; RAI; USN); Tapixapa (Brazil; AUS); Tapixava (Brazil; AUS; MPB; RAI); Te (Ma.; JFM); The Makao (Asia; AUS); The Guadeloupe (Fwi.; GMJ); The Pays (Creole; Guy.; GMJ); The Suisse (Haiti; AVP); Tiatina (Ecu.; Que.; AUS; BEJ; SAR); Tiatina Panga (Que.; SAR); Timitimi (Sudan; AVP); Tipichi Curatu (Par.; MPG); Tupeicaba (Brazil); Tupeicava (Brazil; MPB); Tupeiççaba (Brazil); Tupiçaba (Brazil; MPB; RAI); Tupixaba (Brazil; AUS; MPB; RAI; USN); Typycha Caratu (Ma.; JFM); Typychá Kuratu (Guarani ?; Par.; AUS); Vassourinha (Brazil; MPB; RAI; USN); Vassourinha de Botão (Brazil; AUS; MPB); Vassourinha de Nossa Senhora (Brazil; AVP); Vassourinha de Varrer (Brazil; AUS; JFM); Vassourinha-Doce (Brazil; USN); Vassourinha Mofina (Brazil; AVP); Vassourinha Miúda (Brazil; USN); Verbena Silvestre (Ma.; JFM); Wild Rice (Nic.; AUS); Ye Gan Cao (Pin.); Yerba del Golpe (Ma.; JFM); Zaki (Sudan; AVP). (Nscn).

### Activities:

Abortifacient (f; AUS; DAV); Analgesic (f1; JNP67:725; RAI; X1841990); Antidiabetic (1; MPG); Antiedemic (f; SAR); Antiemetic (f; RAR); Antifilarial (f; AUS); Antiherpetic (1; FNF; X11678658); Antiinflammatory (f1; JNP65:614; MPB; RAI); Antileukemic (1; RAI); Antioxidant (1; JMF4:179; X15900084); Antiplaque (1; EMP5:209); Antiradicular (1; JMF4:179); Antiseptic (f1; DAV; GMJ; RAI); Antispasmodic (f1; GMJ; RAI); Antitumor (1; RAI; X11678658); Antitussive (f; MD2; RAR); Antiulcer (1; X11678658); Antiviral (1; RAI; X11678658); Aphrodisiac (f; AUS; RAI; UPW); Astringent (f; DAV; VOD); Bactericide (f1; JNP65:614; MPG; RAI); Beta-Glucuronidase-Inhibitor (1; X1294695); Cardiotonic (1; MPB; RAI); Cholagogue (f; GMJ); CNS-Depressant (1; JFM); Collyrium (f; GMJ); Contraceptive (f; AUS; DAV; SAR); Cytotoxic (1; FNF; X11678658); Decongestant (f; RAI); Dentifrice (f; AUS); Depurative (f; DAV; RAI); Detoxicant (f; JMF4:179); Diaphoretic (f; JFM); Digestive (f; GMJ); Diuretic (1; X11534346); Emetic (f; AUS; DAV); Emmenagogue (1; RAI); Emollient (f; KAB; VOD); Expectorant (f1; MPG; RAI); Febrifuge (f1; DAV; MPB; RAI); Fungicide (f1; JNP65:614; RAI); Gastroprotective (1; X11678658); H<sup>+</sup>-ATPase-Inhibitor (1; JNP65:614); Hypertensive (1; JNP65:614); Hypoglycemic (1; RAI); Hypotensive (1; RAI); Inotropic (1;

X8832498); Insecticide (f; AUS); Insulinogenic (1; X15306167); K<sup>+</sup>-ATPase-Inhibitor (1; JNP65:614); Litholytic (f; RAI); Mucolytic (f; MPG); Mutagenic (1; X10052564); Myorelaxant (f; JNP65:614); Neurotropic (1; JNP67:725); Orexigenic (f; UPW); Pectoral (f; MPB); Pediculicide (f; JFM); Plasmocidic (1; AUS); Pulicide (f; JFM); Secretagogue (1; X15306167); Sedative (f1; JNP65:614; MPG); Stomachic (f; MPG); Sympathomimetic (1; X8832498); Tonic (f; JFM; RAI); Vermifuge (f; AUS); Vulnerary (f1; DLZ; RAI; WOI; X8832498).

### Indications:

Ague (f; KAB); Albuminuria (f1; RAI; WOI); Anemia (f1; RAI; WOI); Bacteria (f; JNP65:614); Bites (f; JNP65:614); Bleorrhagia (f; KAB); Bronchosis (f; DAV; JNP67:725; MPB; RAI); Bruises (f; AUS; JFM); Burns (f; RAI); Cachexia (f; UPW); Cancer (1; RAI; X11678658); Cancer, bone (1; RAI); Cancer, brain (1; RAI); Cardiopathy (f1; JNP65:614; MPB; RAI; VOD); Cerebrosis (1; RAI); Childbirth (f; JNP65:614; RAI; VOD); Colic (f; MPG; RAI); Conjunctivitis (f; DAV; RAI); Constipation (f; MPG); Corneosis (1; X11678658); Coughs (f; DAV; MD2; RAI; RAR); Cramps (f; GMJ); Dermatitis (f; MD2; RAI; UPW; VOD); Diabetes (f1; MPB; RAI; WOI; X15306167; X15900084); Diarrhea (f; DAV; JFM; RAI; VOD); Dysmenorrhea (f1; JFM; MPG; RAI; X1841990); Dyspepsia (f; MPG); Dysuria (f; JFM; MPB; MPG); Earache (f; AHL; JFM); Eczema (f; JFM); Edema (f; JFM); Enterosis (f; JMF4:179; VOD); Erysipelas (f; DAV; MPB; RAI); Fatigue (f; UPW); Fever (f; DAV; JFM; MD2; RAI; VOD); Filariasis (f; AUS); Frigidity (f; MPG); Fungus (f; JNP65:614); Gas (f; MPG); Gastrosis (f; JMF4:179; KAB; RAI); Glycosuria (1; WOI); Gonorrhoea (f; AHL; JFM; RAI); Gravel (f; WOI); Headache (f; DAV; GMJ; JFM; MD2; RAI); Hemorrhoids (f; AHL; DAV; RAI; VOD); Hepatosis (f; JFM; RAI); Herpes (1; RAI; X2852487); High Blood Pressure (f1; RAI); Hyperglycemia (1; WOI); Impotence (f; RAI; UPW); Infection (f1; DAV; RAI; X11678658); Infertility (f; MD2; UPW); Inflammation (f1; AUS; JNP65:614); Insomnia (f; JNP65:614); Itch (f; RAI; UPW); Jaundice (f; JFM; RAI); Ketonuria (1; WOI); Leprosy (f; RAI; UPW); Leukorrhoea (f; JFM); Lice (f; JFM); Low Blood Pressure (f; JNP65:614); Malaria (f1; AUS; JNP65:614; RAI); Mange (f; JFM); Marasmus (f; JFM); Melanoma (1; RAI); Metritis (f; DLZ); Metrorrhagia (f; JFM); Migraine (f; DAV); Mucososis (1; X8832498); Nausea (f; MD2; RAI); Nephrosis (f; DAV; RAI); Oliguria (f; RAI); Ophthalmia (f1; DAV; GMJ; WOI); Osteosis (1; RAI); Pain (f1; JFM; JNP67:725; MPB; RAI; VOD; X1841990); Pneumonia (f; RAR); Pulmonosis (f; JFM; RAI); Rashes (f; JFM; MD2); Respirosis (f; RAI); Retinosis (1; WOI); Snake Bite (f; RAI); Sores (f; JFM; RAI); Sore Throat (f; KAB; RAI); Stings (f; RAI); Stomachache (f; AHL; BEJ; JMF4:179; RAI); Stomatosis (f; JFM); Stones (f; RAI); Swelling (f; SAR); Syphilis (f; VOD); Thrush (f; UPW); Toothache (f; AHL; RAI); Tumors (f1; RAI); Ulcers (1; X11678658); Urethrosis (f; MPB); Urticaria (f; MPG); UTIs (f; RAI); Vaginosis (f; MPG); VD (f; JFM; RAI; VOD); Viruses (1; RAI; X11678658; X2852487); Wounds (f1; DAV; RAI; SAR; WOI); Yellow Fever (f; JFM).

### Dosages:

FNFF = ? 1 cup tea 2×/day (RAI); 2–3 g capsule 2×/day (RAI).

- Brazilians use for abortion, ache, bronchoses, cough, dermatosis, diabetes, earache, erysipelas, fever, gastrosis, hepatosis, high blood pressure, hyperglycemia, jaundice, malaria, pain, respirosis, worms, and wounds (RAI).
- Dominican Caribs use infusion internally and externally to reduce fever and after childbirth (VOD).
- Dominicans mix mashed leaves with pork lard to treat piles (AHL).
- Dominicans use leaf infusion for diarrhea and teething and (with *Launaea* and *Microtea*) for abdominal pain (VOD).
- Ecuadorians take tea for aches, pain, and swelling (RAI; SAR).
- Haitians apply infusion (2–4 oz sap 10–15 oz water, reduced to 5–6 oz) to piles (VOD), also using for cough, diabetes, dysmenorrhea, earache, gonorrhoea, headache, hemor-

rhoids, inflammation, nerves, oliguria, pain, sore, sore throat, spasm, toothache, and tumors (RAI).

- Nicaraguans take for anemia, burns, childbirth, cough, diarrhea, dysmenorrhea, fever, gastrosis, headache, heart, hepatitis, infection, itch, malaria, snake bite, and VD (RAI).
- Paraguayans take decoction or infusion for frigidity, painful urination, and vaginitis (MPG).
- Peruvians take a tea of the seeds and powdered leaves for colds and nausea (RAR), using the species also for colic, cough, dermatosis, diarrhea, dysmenorrhea, excess mucus, fever, headache, hemorrhoids, infection, infertility, nephrosis, rash, and respirosis (MD2; RAI).
- Surinamese take for bronchosis, cough, diabetes, fever, jaundice, and rash (RAI).
- Tikuna drink tea 3 days during menstruation as a contraceptive or abortifacient (RAI; SAR).
- Trinidadans take decoction for diabetes, diarrhea, eczema, and urinary burning (JFM).
- Venezuelans take for diabetes, diarrhea, and dysmenorrhea (RAI).

**Downsides:**

Not covered (AHP; KOM; PH2). As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**Extracts:**

Extracts, used in Nicaragua to treat malaria, have considerable *in vitro* activity against *Plasmodium falciparum*, possibly via proton pump action (AUS). Extracts hypertensive at 0.5–2 mg/kg ivn rat (X8832498). Amellin apparently does not cause blood sugar to drop below normal; reduction of both blood sugar and urine sugar occurs gradually. Amellin reportedly raises lowered alkali reserves in diabetics and reduces iron content of serum and of blood acetone bodies (WOI). Amellin prevents tissue wastage and promotes better utilization of dietary protein. Fat in adipose tissue is reduced by amellin administration. Amellin promotes healing. All this comes from *The Wealth of India* (WOI). I do not find amellin on PubMed. Morton (1977, 1981) says that dry plants do not exhibit the antidiabetic properties of the Indian studies ca. 1942. Eli Lilly tests showed no antidiabetic properties. But I think the fresh juice should be analyzed anew, especially after seeing what the press does with pharmaceutical-sponsored trials of herbs, e.g., St. Johnswort (CR2).

**CHAYOTE (*Sechium edule* (Jacq.) Sw.) ++**

**CUCURBITACEAE**

**Illustrations:**

p 421 (NPM)

**Synonyms:**

*Chayota edulis* Jacq.; *Sicyos edule* Jacq.; fide (USN).

**Common Names:**

Achoccha (Peru; Que.; EGG; RAR); Achogcha (Ecu.; Ma.; AVP; JFM); Alcaiota (Por.; POR); Alchoncha (Ma.; JFM); Alicavote (Hon.; AVP); Andai (Chiriguano; DLZ); Caihua Chilena (Peru; EGG); Caiota (Por.; AVP; POR); Calabaza (Peru; EGG); Camochayote (Ma.; JFM); Cayota (Bol.; DLZ); Chayocamote (Ma.; JFM); Chayota (Ma.; Ven.; AVP; JFM); Chayote (Bel.; Eng.; Peru; Scn.; AH2; BNA; EB57:365; EGG; RAR; VOD); Chayotero (Sp.; POR); Chayotestle

(Ma.; JFM); Chayotextle (Ma.; JFM); Chayotlu (Ma.; JFM); Chayotte (Dor.; Fr.; AHL; POR); Chima (Ma.; JFM); Chimaa (Ma.; JFM); Chin Chaote (Peru; RAR); Chinchayote (Ma.; Jam.; AVP; JFM); Chinta (Ma.; JFM); Chintla (Ma.; JFM); Chiotil de México (Hon.; AVP); Chocho (Por.; Sp.; POR; USN); Choko (Ma.; JFM); Chote (Cuba; Ma.; AVP; JFM); Chou Chou (Dor.; Fr.; AHL; POR; USN); Chouchoutte (Fr.; Guad.; Mart.; Réunion; St. Lucia; AVP; POR); Christofine (Fr.; USN); Christophine (Eng.; Fr. Guiana; Guad.; St. Lucia; Trin.; AVP; FAC; NPM; POR; USN); Chuchu (Par.; Por.; AVP; USN); Chuchú (Por.; POR); Chuchuceiro (Por.; AVP); Chuma (Ma.; JFM); Chu-Um (Bel.; BNA); Cidrapapa (Ma.; JFM); Cidrayota (Col.; POR); Cocombre (Dor.; AHL); Concombres Arada (Fr.; St. Bart.; AVP); Concombres Chayotte (Fr.; AVP); Cucurbita (Peru; RAR); Desi Name (Magar; NPM); Fat Shau Kwa (Canton; POR); Fo Shou Gua (China; POR); Furry Squash (Eng.; EB57:365); Gayota (Peru; Sp.; EGG; JFM; SOU); Groente Peer (Dutch; POR); Guisayote (Hon.; Ma.; AVP; JFM); Guisquil (Guat.; Sal.; POR); Guisqui (Guat.; RAR); Güisquil (Ma.; Sal.; AVP; JFM); Hayato Uri (Japan; POR; TAN); Huisayote (Ma.; JFM); Huisquil (Bel.; Maya; BNA); Huisquilla (Ma.; JFM); Ichintal (Ma.; JFM); Iskul (Newari; NPM); Iskus (Nepal; NPM); Kadilo (Tamang; NPM); Kajot (Ma.; Sur.; AVP; JFM); Kajottikurpitsa (Fin.; POR); Kayote (Den.; Swe.; POR); Laboe Siam (Dwi.; JFM); Laboe Siem (Dutch; POR); Labu Jepang (Dei.; POR); Labu Siam (Dei.; POR); Li Gua (China; POR); Machuchu (Brazil; POR); Madeira Marrow (Eng.; POR); Ma Kheua Kreua (Thai; POR); Meliton (Haiti; AHL); Militon (Creole; Haiti; VOD); Mirliton (Haiti; AHL; AVP; FAC); Nooy Th'ai (Laos; POR); Papa del Aire (Arg.; POR); Patasquilla (Ma.; JFM); Pataste (Ma.; Nic.; AVP; JFM); Pepinela (Por.; POR); Perulera (Ma.; JFM); Pipinela (Sp.; USN); Quiscayote (Guat.; AVP); Quisquilar (Ma.; JFM); Saiotta (It.; POR); Savëëx (Laos; POR); Sayote (Tag.; POR); Skul (Nepal; POR); Skush (Nepal; POR); Sosity (Malagasy; AVP); Sun Ren Gua (China; POR); Su Suu (Khmer; POR); Syciote Comestible (Fr.; Guad.; St. Lucia; AVP); Taeng Kariang (Thai; POR); Tallon (Ma.; JFM); Tallón (Pr.; AVP); Tallote (Sp.; USN); Taub Maum (Hmong; EB57:365); Taub Taaj (Hmong; EB57:365); Taub Taj (Hmong; EB57:365); Tayota (Dor.; AHL); Tayote (Dor.; AHL); Uisquil (Mex.; Sal.; POR); Vegetable Pear (Eng.; FAC); Waluh Jepang (Dei.; POR); Xuxu (Por.; POR); Zucca Centenaria (Sicily; KAB); Zuccheta Africana (It.; POR). (American entries dia-critically prepared).

### Activities:

Allergenic (f; VOD); Antiinflammatory (f; VOD); Antimutagenic (1; X11527563); Antioxidant 1; X15545051); Cardioprotective (1; X10786447); Cicatrizant (f; VOD); Diuretic (f; EGG; JFM; SOU; VOD; X3777045); Hemostat (f; EGG; SOU; VOD); Hypokalemic (1; X3777045); Hypotensive (f1; JFM; X10786447); Lactagogue (f; VOD); Litholytic (f; JFM); Ribosome-Inactivator (1; X9716381); Sedative (f; VOD); Trypsin-Inhibitor (1; X15328886); Vulnerary (f; JFM; VOD).

### Indications:

Atherosclerosis (f; DLZ; JFM); Bleeding (f; DLZ; EGG; SOU; VOD); Bronchosis (f; AHL); Calculus (f; DLZ); Cardiopathy (1; X10786447); Catarrh (f; AHL); Cystosis (f; DLZ); Dermatitis (f; JFM; VOD); Diarrhea (f; VOD); Dyslactea (f; VOD); Dysuria (f; JFM); Enterorrhagia (f; EGG; SOU); Enterosis (f; JFM); Freckles (f; DAW); Hematochezia (f; VOD); High Blood Pressure (f1; JFM; X10786447); Inflammation (f; JFM; VOD); Insomnia (f; VOD); Leukoderma (f; DAW); Pertussis (f; VOD); Pulmonosis (f; JFM); Stones (f; DLZ; JFM); Strangury (f1; VOD; X3777045); Wounds (f; JFM; VOD).

### Dosages:

FNFF= !!! Fruits edible (NPM; EB57:365), eaten baked, pickled, raw, sauteed, stirfried, steamed, in fritters, salads, meats, puddings, sauces, and tarts; seeds very good as "vegetable scallops" (FAC). Leaves cooked and eaten like spinach; roots also edible, baked, boiled, candied, or fried (NPM); tendrils and young shoots and leaves eaten like asparagus (AHL; FAC).

- Bolivians suggest the leaf infusion against internal hemorrhage (DLZ).
- Bolivians suggest the leaf decoction for arteriosclerosis and bladder stones (DLZ).
- Cubans regard fruit and root as diuretics, also using for pulmonary problems (JFM).
- Dominicans suggest the plant juice to remove facial blemishes (AHL).
- Dominicans use juice of a white variety for bronchosis, catarrh, and pertussis (AHL).
- Guatemalans claim raw fruit cauterizes wounds, leaving no scar (JFM).
- Haitians consume the fruit broth as galactagogue (VOD), eating fruit as diuretic and sedative.
- Jamaicans take grated fruit juice for high blood pressure (JFM).
- Mexicans boil 3 leaves with 5 of *Casimiroa* for high blood pressure (JFM).
- Yucatanese take leaf decoction for atherosclerosis, high blood pressure, and urinary stones (JFM).

#### Downsides:

Not covered (AHP; KOM; PH2). Peeling the fruit may cause inflammation, or even numbness if a number are peeled. Fruit contains a dermatitogenic irritating exudate (VOD). One case of severe hypokalemia in pregnancy is reported. Potassium levels returned to normal, with no hypokalemia, once ingestion stopped (X3777045). As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.

#### Extracts:

Leaf extracts exert transient depressor effect when injected in lab animals.

## NIGHT-BLOOMING CEREUS (*Selenicereus grandiflorus* (L.) Britton & Rose) + CACTACEAE

#### Synonyms:

*Cactus grandiflorus* L.; *Cactus speciosus* Weingt.; *Cereus grandiflorus* (L.) Millsp.; *Cereus scandens* Mill.; *Selenicereus grandiflorus* L.; fide (HH2; POR; USN).

#### Common Names:

Cacto (It.; Sp.; EFS); Cacto de Flor Grande (Ma.; JFM); Cactus (Eng.; Fr.; Ma.; EFS; JFM); Cactus Cierge Àgrandes Fleurs (Fr.; POR); Cardeiro (Ma.; JFM); Cardon (Ma.; JFM); Ciège à Grandes Flores (Fr.; HH2); Cumbera (Ma.; JFM); Da Hua She Bian Zhu (China; POR); Flora Cheirosa (Brazil; JFM; PIO); Flora de Sêda (Brazil; PIO); Flor da Noite (Brazil; Ma.; JFM; PIO); Flor de Baile (Dor.; Ma.; AHL; JFM); Flor de Mayo (Dor.; AHL); Gigante (Ma.; Sp.; JFM; PIO); Jamaru (Ma.; JFM); Junquilha (Ma.; JFM); Kaktus (Ger.; EFS); Königender Nacht (Ger.; HH2); Königin der Nacht (Ger.; POR); Koningin der Nacht (Dutch; EFS; POR); Large Blooming Cactus (Eng.; HH2); Large Flowered Torch Thistle (Eng.; HH2); Mandacairu (Ma.; JFM); Night Blooming Cereus (Eng.; Scn.; AH2; CRC; HH2; JFM; POR; USN); Organillo (Mex.; MAX); Pitahaya (Ma.; JFM); Princesse de la Nuit (Fr.; POR); Queen of the Night (Eng.; JFM; POR; USN); Rainha Danoite (Por.; POR); Reina de la Noche (Mex.; Sp.; MAX; POR; USN); Reina de las Flores (Sp.; JFM; PIO); Reina Gigante (Sp.; HH2); Reine de la Nuit (Fr.; POR); Schlangencactus (Ger.; HH2); Schlangencereus (Ger.; HH2); Sweet Scented Cactus (Eng.; EFS; POR); Urumbaba (Eng.; Sp.; HH2; JFM); Vanilla Cactus (Eng.; EFS; POR); Vierge à Grandes Flores (Fr.; HH2).

#### Activities:

Antiinflammatory (f; PHR; PH2); Antirheumatic (f; CRC); Cardi tonic (f1; CRC; EFS; MAX; PHR; PH2; PIO); Digitalic (f1; JFM; MAX; PIO); Diuretic (f; EFS); Emmenagogue (f; PIO); Hydragogue (f; PIO); Nervine (f; EFS); Positive Inotropic (1; HH2; X17402080);

Spinostimulant (1; PHR; PH2); Stimulant (f; EFS); Tonic (f; EFS); Vasodilator (1; PHR; PH2); Vermifuge (f; CRC; JFM); Vesicant (f; CRC).

#### Indications:

Alcoholism (f; PIO); Angina (f; CRC; PH2; PIO); Bleeding (f; PHR; PH2); Cancer (f; DAW; JLH); Cardiopathy (f1; CRC; EFS; MAX; PHR; PH2; PIO); Congestion (f; JFM); Cystosis (f; CRC; PHR; PH2); Dermatitis (f; JLF; PHR); Dropsy (f; CRC; PHR; PH2); Dysmenorrhea (f; PHR); Dyspnea (f; CRC; PH2); Dysuria (f; PHR; PH2); Endocarditis (f; CRC); Exophthalmia (f; EFS); Fungus (f; JLH); Goiter (f; EFS); Headache (f; CRC; JFM); Heart (f; CRC); Hemoptysis (f; CRC; PH2); Inflammation (f; PHR; PH2); Menorrhagia (f; HH2); Myocarditis (f; CRC); Nephrosis (f; CRC; JFM); Nervousness (f; JFM); Neuralgia (f; CRC; JFM); Neurosis (f; PH2); Nicotinism (f; PIO); Palpitations (f; CRC; JFM); Prostate (f; CRC; JFM); Respirosis (f; HH2); Rheumatism (f; CRC; MAX; PHR; PH2); Stenocardia (f; CRC; PH2); Worms (f; CRC; JFM).

#### Dosages:

FNFF = !! Fruits edible (TAN). Pio Correa (1984) says the fruit and flower buds just before opening are edible; watch for glochidia (JAD). 0.6 ml fluid extract, to 10×/day; 0.12–2 ml 2–3×/day (HH2; PHR; PH2); 10 drops tincture (1:10) in sweet water 3–5×/day (HH2; PHR).

- Brazilians, Costa Ricans, Cubans, and Mexicans use stem and floral infusion for heart problems and rheumatism (JFM; MAX).
- Brazilians suggest the plant can help addictions to alcohol, morphine, smoking, and tea (PIO).
- Cubans use stem juice as vermifuge and vesicant (JFM).

#### Downsides:

Class 1 (AHP). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). Newall, Anderson, and Phillipson (1996) caution the fresh juice can irritate the GI tract. As of July 2007, the FDA Poisonous Plant Database listed nine titles alluding to toxicity of this species.

#### Extracts:

Martinez (1969) suggests that the plant has cardioactive compounds and that it is used for heart problems. Cactine may possibly have cardiotoxic effects (PNC). Methanol extract positive inotropic (EC50 = 200 mg/l in organ baths) (HH2). Positive inotropic tyramine (X17402080).

## FALSE ARNICA (*Senecio formosus* Kunth) X

### ASTERACEAE

#### Synonyms:

*Senecio tabacum* Turc.

#### Notes:

Regrettably too many people have attributed Arnica properties to this related species, based more on the common name than science.

#### Common Names:

Árnica (Col.; IED; MPG); Árnica Colombiana (Col.; MPG); Árnica de Bogotá (Col.; IED; MPG); Árnica de la Tierra (Col.; MPG); Árnica de Monte (Col.; MPG); Árnica de Páramo (Col.; Sp.; IED; MPG; USN); Árnica Falsa (Col.; MPG); Extraña de Páramo (Ven.; MPG); Falsa Árnica (Col.; MPG); Suela Consueldo (Col.; MPG); Suela Consuelda (Col.; Sp.; USN); Tabacón (Col.; MPG); Tabacote (Ven.; MPG); Tabaquillo (Col.; MPG). (Nscn).

**Activities:**

Antisyphilitic (f; MPG); Carminative (f; MPG); Depurative (f; MPG); Hepatotoxic (1; MPG); Sudorific (f; MPG).

**Indications:**

Bruises (f; MPG); Edema (f; MPG); Gas (f; MPG); Rheumatism (f; MPG); Swelling (f; MPG); Syphilis (f; MPG); Trauma (f; MPG); VD (f; MPG); Wounds (f; MPG).

**Dosages:**

FNFF = X.

**Downsides:**

Though falsely recounted to be an alternative to *Arnica*, this should not be ingested (pyrolizidine alkaloids may cause venoocclusive liver disease). Gupta (1995) gives many details of the poisonings.

**RINGWORM SENNA (*Senna alata* (L.) Roxb.) +****FABACEAE****Illustrations:**

pl 355 (KAB)

**Synonyms:**

*Cassia alata* L.; *C. bracteata* L.; *C. herpetica* Jacq.; *Herpetica alata* Raf.

**Common Names:**

Bajagua (Sp.; JFM; USN); Bajaguo (Ma.; JFM); Bois Dartre (Creole; Fr.; Guy.; GMJ; USN); Café do Mato (Brazil; AVP); Candlebush (Eng.; CR2); Candle Bush (Eng.; Ocn.; AH2; VOD); Candlestick Senna (Eng.; Ocn.; AH2); Carrion Crow (Ma.; JFM); Casse Ailee (Guad.; Mart.; AVP); Casse Puante (Guad.; Mart.; AVP); Christmas Candle (Eng.; USN); Cure All (Ma.; JFM); Dartier (Gabon; Guad.; Mart.; AVP); Dartres (Fr.; Haiti; AVP; USN); Dartrial (Brazil; MPB); Dartrier (Fwi.; GMJ); Date (Haiti; AHL); Dates Jaunes (Haiti; AHL); Dragon (Pr.; AVP); Empress-Candleplant (Eng.; USN); Esole (Congo; AVP); Eveguengogo (Gabon; AVP); Fedegoso (Brazil; MPB); Fey Adat (Creole; Haiti; VOD); Fleur Palmiste (Haiti; AHL); Fleurs Dartres (Haiti; AVP); Fleurs Jaunes (Haiti; AHL); Fleur St. Christophe (Haiti; AHL); Flor del Secreto (Mex.; AVP); Guacamaya Francesa (Cuba; AVP); Guacamayon (Ma.; JFM); Guajabo (Dor.; AHL; AVP); Guajavo (Dor.; AVP); Herbe a Dartres (Guad.; Mart.; AVP); Hierba de Playa (Ma.; JFM); Impetigo Bush (Eng.; Ocn.; AH2); Kikukitobo (Congo; AVP); King of the Forest (Ma.; JFM); Kognimbere (Sudan; AVP); Kotaba (Sudan; AVP); Kotamba (Sudan; AVP); Laurenyo (Ma.; JFM); Lengue Vaca (Ma.; JFM); Lucutema (Ma.; JFM); Lucutena y Dorance (Col.; AVP); Majagillo (Ma.; JFM); Majagua (Ma.; JFM); Mamuri Curichero (Bol.; DLZ); Maria Preta (Brazil; MPB); Marigeriona Grande (Brazil; MPB); Mata Pasta (Col.; SAR); Mata Pastao (Brazil; AVP); Matapasto (Por.; GMJ); Matupa (Tikuna; EGG; SAR); Moco (Ma.; JFM); Mocoté (Sp.; USN); Mocuteno (Ma.; JFM); Mokoku (Congo; AVP); Mucutena (Ma.; JFM); Mucutenque (Ma.; JFM); Mululu Kialna (Congo; AVP); Ndemengogo (Gabon; AVP); Palo Santo (Ma.; JFM); Pele (Wayāpi; GMJ); Retama (Peru; Sp.; EGG; LOR); Ringwormbush (Eng.; USN); Ringworm Cassia (Eng.; VOD); Ringworm Senna (Eng.; Scn.; AH2; DAV; USN); Ringwormshrub (Eng.; Jam.; AVP; USN); Ringwormtree (Ma.; JFM); Saragundi (Ma.; JFM); Sarsaparilla (Ma.; JFM); Sene (Creole; Haiti; VOD); Seven-Golden-Candlesticks (Eng.; USN); Slabriki (Ma.; JFM); Soroncontil (Ma.; JFM); Talantala (Pr.; AVP); Talantalan (Pr.; AVP); Talantola (Ma.; JFM); Talantro (Pr.; AVP); Talatalan (Ma.; JFM); Taratana (Mex.; AVP); Wahamussie (Palikur; GMJ); Wild Senna (Ma.; JFM); Winged Cassia (Eng.; JFM); Yerba de los Herpes (Sp.; JFM).



**Activities:**

Abortifacient (f; AHL; ZUL); Anthelmintic (1; IED); Antiaggregant (1; X12951489); Antiherpetic (f; DAV); Antihistaminic (1; TRA); Antiinflammatory (1; AAB; X17644272); Antioxidant (1; X17644272); Antiplatelet (1; X12951489); Antiseptic (1; TRA); Antithrombic (1; X12951489); Antiviral (f; DAV); Bactericide (1; TRA; X16009519); Deobstruent (f; MPB); Diuretic (f; JFM); Emmenagogue (f; MPB); Febrifuge (f; GMJ); Fungicide (1; AAB; TRA); Insecticide (f; DAV; EGG; IED); Laxative (f; DLZ; IED); Piscicide (f; IED); Purgative (f; JFM; SAR); Uterocontractant (1; ZUL); Vermifuge (f1; GMJ; JFM).

**Indications:**

Acariasis (f; RAR); Acne (1; X16009519); Allergies (1; TRA); Amenorrhea (f; MPB); Bacteria (1; TRA; X16009519); Bites (f; IED; JFM; SOU); Catarrh (f; JFM); Childbirth (f; AHL); Constipation (f1; DLZ; EGG; IED); Dermatophilosis (1; X12738081); Dermatophyte (1; TRA); Dermatitis (f1; AAB; DAV; DLZ; VOD; X12738081); Diarrhea (f; EGG; JFM); Dyspepsia (f; IED); Dysuria (f; EGG); Eczema (f; JFM); Enterosis (f; EGG); Fever (f; GMJ); Flu (f; JFM); Fungus (1; AAB; TRA); Hemorrhoids (f; MPB); Hepatosis (f; AAB; EGG; JFM; MPB); Herpes (f1; DAV; RyM; VOD); High Blood Pressure (f; IED); Infection (f1; IED; TRA; X16009519); Infertility (f; AAB; IED); Inflammation (1; AAB; X17644272); Itch (f; AHL); Jaundice (f; IED); Liver Spots (f; AAB); Lymphosis (f; AAB); Malaria (f; JFM); Mycosis (1; AAB); Nephrosis (f; AAB; IED); Neurosis (f; VOD); Pain (f; IED); Parasites (f; EGG; IED); Pellagra (f; DAV); Pharyngosis (f; VOD); Phonia (f; VOD); Rashes (f; DLZ; EGG; IED); Rheumatism (f; IED; JFM); Ringworm (1; AAB); Scabies (f; AAB); Snake Bite (f; IED; JFM); Sores (f; DAV); Sore Throat (f; AHL); Splenomegaly (f; JFM); *Staphylococcus* (1; TRA); Stomachache (f; IED; JFM); Thrombosis (1; X12951489); Urethrosis (f; EGG); Uterosis (f; JFM); UTIs (1; AAB); VD (f; IED; JFM); Viruses (f; DAV); Womb (f; JFM); Worms (f1; GMJ; JFM; IED).

**Dosages:**

FNFF = ? Other cassia and senna species have edible flowers, fruits, and shoots, but I consider this one more medicine than food (JAD). Heat-treated or sun-dried leaves are antiinflammatory (X12875233).

- Brazilians eat the flowers raw to treat piles (MPB).
- Dominicans wash dermatoses with juice from crushed leaves (VOD).
- Haitians apply crushed leaves a/o flowers or consume flowers for dermatoses (e.g., dar-tre, gale) and herpes (VOD).
- Haitians drink the floral tea for emotional problems (VOD).
- Haitians gargle with leaf juice for aphonia and sore throat (VOD).
- Latinos apply crushed leaves or leaf juice to bugbites, eczema, ringworm, and snake bite (JFM).
- Peruvians take leaf or shoot decoction for Acariasis, constipation, diarrhea, intestinal parasites, and urethrosis (EGG).
- Surinamese take decoction (25 g roots:1 liter water) for uteral and womb problems (JFM).
- Tikuna take a cup of floral decoction each morning as purge (SAR).
- Trinidadans take leaf decoction for diarrhea and worms (JFM).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed 14 titles alluding to toxicity of this species.

**Extracts:**

Crude extract strongly inhibited growth of *Propionibacterium acnes* (X16009519). Topical application of ointment prepared with ethanolic leaf extract induced healing of bovine

dermatophilosis crusts and lesions when used on infected animals, with no recurrence of the disease even after 3 years (X12738081).

**COFFEE SENNA (*Senna occidentalis* (L.) Link) +  
FABACEAE**

**Illustrations:**

p 201 (AAB); pl 351 (KAB)

**Synonyms:**

*Cassia occidentalis* L.; *Ditremexa occidentalis* (L.) Link.

**Notes:**

“Coffee senna” is associated with the deity Iansa in the Afro-Brazilian Candomblé religion, used for incense and avoiding the “evil eye,” as well as fever (VOD quoting Voeks, 1997).

With less than complimentary names like “fetid cassia,” “stinking cassia,” “herbe puante,” and “yierba hedionda,” it is one of many wild edibles, not widely eaten but locally eaten as food. I don’t remember ever seeing “stinking coffee” in any supermarket here. But it is an ethnic survival food, a poverty food, and 90% of the world is poor. I won’t say it is a health food, but I doubt it is as bad on us as some of the junk foods for which we pay so dearly. “Stinking coffee” could be more important to poor people than it is to readers of my articles.

**Common Names:**

Abogotul (Congo; AVP); Achpu Poroto (Sp.; RAR; SOU); Achupa Poroto (Peru; Sp.; LOR); Acpu Poroto (Peru; EGG); Agorbladzo (Peki; KAB); Ahuandeme (Dahomey; KAB); Aitera (Col.; JTR); Anaghourous (Arab.; AVP); Anagiride (It.; AVP); Anansedua (Ashanti; KAB); Anatajanku (Tulu; KAB); Anecogate (Kan.; WO2); Antbush (Aust.; Eng.; POR; USN); Arbre a l’Ail (Fr.; KAB); Ayak Poroto (Peru; RAR); Aya Porotilla (Peru; RAR); Aya Poroto (Peru; Que.; RAR); Badde Haedma (Jammu; WO2); Badikasondi (Hindi; WO2); Balambala (Haiti; India; AVP); Balatongosa (Tag.; KAB); Bansa (Ga; KAB); Bantamara (Mandingo; KAB); Barapawar (Up.; WO2); Barikasondi (Dec.; Hindi; DEP; KAB); Barkichakor (Danuwar; NPM); Bazanfaze (Katagum; KAB); Bemaimbo (Antsianaka; KAB); Bentamare (Malinke; Timbuctoo; KAB); Bentameré (Fr.; Sen.; POR; USN); Bicho (Col.; Mex.; AVP; IED); Bois Puant (Fr.; AVP); Bonne Casse (Fr.; Sen.; POR); Briche (Sp.; USN); Bruca (Dor.; MPG); Brusca (Col.; Cuba; Ven.; JTR); Brusca Hedionda (Sp.; AVP); Brusca Hembra (Dor.; Sp.; AVP); Bucho (Mex.; JTR); Buul Che (Bel.; BNA); Café Bâtarde (Fr.; AVP; USN); Café Nègre (Haiti; St. Bart; AVP); Café Negro (Por.; AVP); Café Plante (Haiti; AVP); Casse Fétide (Haiti; AVP); Casse N’ame (Haiti; AVP); Casse Puante (Fr.; Gabon; St. Bart.; AVP; USN); Cassia Mansa (Por.; AVP); Casssier (Fr.; KAP); Chaknda (Bihar; SKJ); Chakundra (Raj.; WO2); Chakwar (Bihar; WO2); Chawar (Kotra; KAB); Chechenda (Mp.; KAP); Chicccchika (Nepal; KAP); Chilinchile (Col.; JTR); Chilmile (Danuwar; NPM); Chinyinsat (Sunda; IHB); Chum Her Tèt (Thai; IHB); Chumhet Lek (Thai; POR); Coffee Senna (Eng.; Scn.; AH2; CR2; NPM; POR); Comida de Murcielago (Col.; JTR); Cumandai (Bol.; Chiriguano; DLZ); Dhadial (Delhi; WO2); Dipana (Sanskrit[1 of12]; KAB); Doddtagache (Kan.; NAD); Dzovi (Ewe; KAB); Ecapatli (Mex.; JLH); Ekyaindaluwa (Aowin; KAB); Elevure (Kan.; KAB); Eski (Tripura; WO2); Fedegosa (Sp.; AVP); Fédégoso (Gabon; Por.; AVP; KAB); Fedegoso de Capoeira (Por.; AVP); Fedegoso Legítimo (Por.; AVP); Fedegoso Verdareiro (Por.; AVP); Fève de Loup (Fr.; AVP); Florida Coffee (Eng.; BUR); Foetid Cassia (Eng.; Ocn.; AH2); Folha de Pajé (RAI); Frijolillo (Bel.; Pan.; AAB; IED); Frijolio (Bel.; BNA); Furrusca (Col.; JTR); Gahat (Danuwar; NPM); Guanina (Cuba; Sp.; JTR; POR; RAI; USN); Habilla (Mex.; AVP); Habilla Prieta (Mex.; AVP; JTR); Hedionda (Pr.; Sp.; AVP; DAV; EGG); Hediondillo

(Mex.; AVP); Heduibda (RAI); Herbe Puante (Guad.; St. Bart.; AVP); Hierba de Gallinazo (Col.; JTR); Hierba de la Potra (Col.; JTR); Hierba Hedionda (Cuba; AVP); Hikal (Bom.; Guj.; Mah.; KAB; NAD; WO2); Hodi Taikilo (Mal.; NAD); Howar (Nasirabad; KAB); Ise-Nyembane (Zulu; KAB); Jarana (Sanskrit; KAB); Kachang Cola (Malaya; KAP); Kachang Kota (Malaya; IHB; RAI); Kalakasunda (Ben.; NAD); Kalan (Burma; KAP); Kalkashunda (Ben.; DEP; KAB; SKJ; WOI); Karintakara (Mal.; KAB); Kasamara (Sanskrit; DEP); Kasamarda (Sanskrit; NAD; WOI; WO2); Kasaudi (Nepal; POR); Kasaundi (Hindi; Yunani; KAP); Kasiah (RAI); Kasinda (Ap.; Tel.; NAD; SKJ; WOI); Kasindha (Tel.; DEP); Kasingsat (Sunda; IHB); Kasmard (Ben.; Sanskrit; KAP); Kasmarda (Sanskrit; KAP); Kasoda (Mar.; KAB); Kasodari (Guj.; KAB; WO2); Kasondi (Hindi; SKJ); Kasonji (Urdu; KAB; WO2); Kasunda (Bom.; Dec.; Haryana; Hindi; NAD; SKJ; WO2); Kasundi (Guj.; SKJ); Kasundri (Oriya; Porebunder; KAB; WO2); Kasuvayee (Guj.; Mah.; NAD); Kedeberuda (Nzima; KAB); Kētepeng Hutan (Malaya; IHB); Khet (Thai; POR); Khiyar Shember (RAI); Kī Lek Pī (Thai; IHB); Kintakintsana (Sakalave; KAB); Kopi Andēlan (Sumatra; IHB); Koretemfeur (Mp.; KAP); Kurtasakonda (Saora; SKJ); Kusa Senna (Japan; TAN); Kusundra (Oriya; SKJ); Kutepeng Hutan (Malaya; KAB); Lang Khet (Thai; POR); Lavapratos (Brazil; KAB); Llama Bush (Bel.; BNA); Logondjolo (Congo; AVP); Maisala (Burma; DEP); Mamuri (Bol.; Guarayo; DLZ); Manjerioba (RAI); Marangcakonda (Mun.; KAB); Martinica (Cuba; JTR; RAI); Mbalabalafing (Sudan; AVP); Mbentamaré (Gabon; AVP); Mēnting (Java; IHB; RAI); Mezali (Burma; KAB); Mezquitillo (Mex.; AVP; JTR); Mmofra Broorde (Twi; KAB); Mwingajini (Kenya; POR); Mwingia (Congo; POR); Natram Katara (Ker.; SKJ; WOI); Natrum Takara (Mal.; DEP; NAD); Nattam Takarai (Tam.; SKJ; WOI); Nattutakarai (Tam.; NAD); Negro Coffee (Eng.; KAP; NPM; POR); Obokotul (Congo; AVP); Oud al Isr (Arab.; AVP); Padakasivinda (Ap.; SKJ); Panvar (Nepal; POR); Payavarai (Tam.; KAP); Peddakasinda (Tel.; KAB; WO2); Peeriaba (RAI); Penitora (Sin.; DEP; KAB; KAP); Peyaveri (Tam.; DEP); Peyavirai (Tam.; KAB); Phak Ngot (Ic.; KAB); Pico de Pájaro (Cr.; Nic, AVP; JTR); Pisabed (Cr.; AVP); Platanillo (Cuba; JTR); Pois Piante (Haiti; AVP; VOD); Pois Puant (Haiti; Mart.; AVP); Ponnantakarai (Sri.; KAB); Ponnvirai (Tam.; NAD); Ponnviram (Mal.; WO2); Potra (Col.; IED); Pudis (Fr.; AVP); Pwa Piante (Creole; Dor.; Haiti; MPG; VOD); Raidoré (Hausa; Sudan; AVP; KAB); Raiídor (Hausa; POR); Rankasvinda (Mar.; WO2); Rat Bean (Bel.; Eng.; AAB); Rédoré (Sudan; AVP); Retama (Peru; Sp.; LOR); Retamilla (Peru; EGG; RAR); Retanilla (Peru; EGG; RAR); Rinde Tedegooso (Ger.; KAP); Rubbish Cassia (Eng.; KAB); Sangasanaga (Sokoto; KAB); Saringvaso (Madagascar; KAB); Séné d'Occident (Fr.; POR); Sēnting (Java; IHB; RAI); Shih Chueh Ming (China; RAI); Sinamekki (RAI); Soumakala (Sudan; AVP); Souveraine (Réunion; KAB); Stinking Weed (Eng.; Jam.; Ocn.; AH2; POR; USN); Stinkstrauch (Ger.; AVP); Styptic Weed (Eng.; Ocn.; AH2; BUR); Sundarasen (Panch Mahals; KAB); Tagrea (Mp.; KAP); Tambalisa (Vis.; KAB); Taracu (Peru; RAR); Tigasowwrou (Fulah; KAB); Tlalhoaxin (Mex.; JLH; RAI); Uchpa Poroto (Peru; EGG; RAR); Vainillo (Mex.; AVP; JTR); Voantsiraokonangatra (Betsileo; KAB); Vonjary (Hova; KAB); Wang Chiang Nan (RAI); Wang Jiang Nan (China; POR); Wang Jiang Nan Jue Ming (China; POR); Wild Coffee (Jam.; AVP; NPM); Ya Ma Bu (Bel.; BNA); Yamabush (Bel.; AAB); Yerba Hedionda (Cuba; JTR); Yeroka (Bol.; Chiquitano; DLZ).

### Activities:

Abortifacient (f; DAV; JFM; ZUL); Alexiteric (f; DEP); Analgesic (f1; RAI; ZUL); Anthelmintic (f1; HDN; NPM; TRA; ZUL); Antidiuretic (f; JFM); Antidote (f; KAB; SKJ); Antiedemic (f1; TRA); Antifatigue (f; WO2); Antihepatotoxic (1; TRA); Antiinflammatory (f1; HDN; TRA; WO2); Antimalarial (f1; RAI; X15182900); Antimutagenic (f; RAI); Antioxidant (1; RAI); Antiperiodic (f; SKJ); Antiplasmodial (1; X15182900); Antiseptic (f1; TRA; X10661885; ZUL); Antispasmodic (f; JFM; KAP; RAI); Antitumor (1; RAI); Antiviral (1; RAI); Bactericide (1; WO2; X10661885; ZUL); Cardiotoxic (1; AAB; MPG); Cholagogue (1; MPG; TRA);

ZUL); Cicatrizant (f; ZUL); Contraceptive (f; RAI); Curare (f; HDN); Deobstruent (f; DEP); Depurative (f1; JFM; MPG; RAI; TRA); Detoxicant (f; RAI); Diaphoretic (f; RAI; WO2); Diuretic (f1; EGG; KAB; KAP; WO2; ZUL); Expectorant (f; WO2); Febrifuge (f; EGG; IED; RAI; ZUL); Fungicide (1; FNF; WO2; ZUL); Gram(+)-icide (1; HDN); Gram(-)-icide (1; HDN); Hemostat (f; ZUL); Hepatoprotective (1; HDN; MPG; RAI; WO3); Hypotensive (1; JFM; MPG; RAI; TRA); Immunostimulant (f1; RAI); Insecticide (f1; RAI); Lactagogue (f; SKJ); Laxative (f1; MPG; RAI; TRA; ZUL); Myorelaxant (1; RAI); Nematocide (1; WO3); Oxytocic (f; HDN; VOD); Parasiticide (1; RAI); Piscicide (f; DLZ); Plasmodicide (1; HDN); Purgative (f1; IED; KAP; ZUL); Stimulant (f; HDN); Stomachic (f; WO2); Sudorific (f; SKJ); Tonic (f; VOD; ZUL); Uterotonic (1; RAI); Vasoconstrictor (1; RAI); Vermifuge (f1; RAI; WO2).

### Indications:

Abscesses (f; HDN; WO2); Acne (f; RAI); Aging (f; ZUL); Anemia (f; RAI; ZUL); Aphtha (f; WO2); Arthrosis (f; HDN; VOD); Asthma (f; EGG; NPM; WO2); Athlete's Foot (f; RAI); Azoospermia (f; HDN); *Bacillus* (1; X10661885); Bacteria (1; WO2; ZUL); Bed Wetting (f; JFM); Bilioussness (f; KAB; ZUL); Bites (f; RAI); Bleeding (f; RAI; ZUL); Bleorrhagia (f; ZUL); Blisters (f; NAD); Bone Ache (f; IED); Bronchosis (f; EGG; IED; ZUL); Bruises (f; RAI); Bugbites (f; ZUL); Burns (f; HDN; RAI); Cancer (f1; WO3); Cancer, epidermis (f1; WO3); Cancer, mouth (f1; WO3); Cardiopathy (f; HDN; JFM; WO2; ZUL); Caries (f; IED); Cataracts (f; IED; JFM); Catarrh (f; IED); Childbirth (f; JFM; VOD; ZUL); Chills (f; RAI); Cirrhosis (f; WO2); Colds (f; VOD); Colic (f; IED); Congestion (f; VOD); Conjunctivitis (f; IED; RAI); Constipation (f; NPM; RAI; ZUL); Convulsions (f; WO2; ZUL); Coughs (f; KAP; NAD; VOD; ZUL); Cramps (f; IED; WO2); Debility (f; AAB; BUR); Dermatitis (f1; DEM; MPG; SKJ; TRA; WO2); Diabetes (f; WO2; WO3); Diarrhea (f; WO2); Dropsy (f; BUR; NPM; SKJ); Dysentery (f; KAP; WO2); Dysmenorrhea (f1; AAB; JFM; RAI); Dyspepsia (f; HDN; NPM); Earache (f; RAI); Eczema (f; NPM); Edema (f1; JFM; TRA); Elephantiasis (f; HDN; KAB); Encephalosis (1; WO2); Enteralgia (f; IED; RAI; ZUL); Enterosis (f; RAI); Epilepsy (f; IED); Erysipelas (f; RAI); *Escherichia* (1; HDN); Fatigue (f; RAI; WO2); Fever (f; AAB; SKJ; VOD; ZUL); Flu (f; AAB); Fracture (f; WO2); Fungi (f1; KAB; MPG; ZUL); Gas (f; RAI); Gastrosis (f; DEP; NPM; ZUL); Gonorrhoea (f; IED; WO2); Gout (f; ZUL); Guinea Worm (f; ZUL); Headache (f; RAI; TRA; WO2); Heart (f; JFM); Hematuria (f; RAR; WO2); Hepatosis (f1; JFM; MPG; TRA; WO2; WO3); Hernia (f; HDN); Hiccups (f; KAB); High Blood Pressure (1; JFM; TRA); Hysteria (f; JFM; KAP; SKJ; WO2); Impotence (f; KAB); Infection (f1; MPG; RAI; WO2; X10661885); Inflammation (f1; HDN; VOD; WO2); Insanity (f; HDN); Itch (f; BUR; KAB; WO2); Jaundice (f; JFM; WO2); Leprosy (f; WO2; RAI); Leukorrhoea (f; WO2); Lice (f; ZUL); Malaria (f1; HDN; KAB; KAP; NPM; RAI; WOI; X15182900; ZUL); Measles (f; HDN); Mycosis (f1; KAB; MPG; RAI; WO2); Nausea (f; RAI); Nephrosis (f; JFM; ZUL); Neuralgia (f; HDN; NAD); Neurosis (f; KAP); Oliguria (f; RAI); Ophthalmia (f; RAI; ZUL); Orchosis (f; ZUL); Pain (f1; AAB; RAI; VOD; ZUL); Palpitations (f; JFM; RAI); Paralysis (f; HDN); Parasites (f; HDN); Pediculosis (f; RAI); Pertussis (f; KAP; NAD; NPM; WO2); Pleurisy (f; WO2); Pregnancy (f; VOD); Proctosis (f; BUR); Pulmonosis (f; VOD); Rheumatism (f; JFM; NPM); Ringworm (f1; FNF; IED; JFM; KAB); *Salmonella* (1; HDN); Scabies (f; HDN; RAI; SKJ); Shock (f; VOD); Snake Bite (f; NPM; ZUL); Sores (f; VOD; ZUL); Sore Throat (f; NPM); Spasms (f; KAP); Sprains (f; WO2); *Staphylococcus* (1; HDN); Steatorrhea (f; WO2); Sterility (f; HDN); Stomachache (f; ZUL); Swelling (f; RAI; SKJ; WO2); Syncope (f; RAI); Syphilis (f; ZUL); Tetanus (f; RAI; WO2); Toothache (f; HDN; IHB; WO2); Tuberculosis (f; RAI); Tumors (f; JFM; JLH); Typhoid (f; WO2); Ulcers (f; RAI); Uterosis (f; RAI); VD (f; JFM; NPM; RAI; WO2; ZUL); *Vibrio* (1; HDN); Viruses (1; WO2); Womb (f; JFM); Worms (f1; NPM; WO2; ZUL); Wounds (f; VOD; WO2); Yellow Fever (f; HDN; RAI).

**Dosages:**

FNFF = !! “Root bark serves as a quinine substitute and is used to treat gonorrhea. The seeds, considered poisonous undried, are febrifugal and purgative; they are used to treat ringworm. A decoction is used for cataracts” (IED). That last sentence in my quote is important. Cataracts is one of the major health problems in Haiti, along with malaria. This stinking species is also credited with some antimalarial capacity. Pod can be eaten raw (TAN). Steamed flowers, green pods, and young leaves eaten as vegetable. Roasted seeds used as coffee substitute as “magdad coffee,” “Florida coffee,” or “raja’s cup” (FAC; JFM; TAN). Javans cook the young leaves and pods with rice (IHB). Leaves aphrodisiac and alexiteric, for asthma, cough, and hiccough (KAB). 15 g leaf boiled in 1 liter water, drinking 1 glass/day as cholagogue (HDN); 1 cup leaf tea 2×/day (RAI); 5–15 ml leaf juice (KAP); 3–4 ml leaf tincture 2×/day; 1–2 g leaf capsule/tablet 2×/day (RAI); 1–2 g powdered seed (KAP); 56–112 ml root decoction (KAP).

- Belizeans boil 1 root in 2 cups water 10 min and drink warm 2×/day for fever and flu (AAB).
- Brazilians boil 3 g root in 300 g water for worms, 5 g as abortifacient, otherwise using the plant for anemia, constipation, debility, dermatosis, dysmenorrhea, dysuria, edema, fatigue, gonorrhea, hepatitis, malaria, oliguria, and tuberculosis (JFM; RAI).
- Costa Ricans take the root decoction for kidney problems (JFM).
- Cubans suggest Senna coffee for the chest, liver, and stomach, e.g., colic and stomach-ache; the root for malaria, and applying leaf juice to burns (JTR).
- Dahomey natives prefer the hot leaves to quinine for malaria (KAB).
- Dominicans rub bruised leaves onto dermatoses and massage the limbs with leaf juice for “bad blood” (MPG).
- Dominicans use leaf tea for colds, cuts, fevers, and pregnancy (VOD).
- Dominicans use powdered leaves to treat pulmonary congestion (VOD).
- Dominicans use seed tea for arthrosis, childbirth, jaundice, and pain (VOD).
- East Indians poulticed the leaves onto toothache (IHB).
- Gold Coast natives pound the debarked roots with black pepper and use the juice as a nosedrop for headache (KAB).
- Gold Coast natives respect the root bark for malaria (KAB).
- Guatemalans take root decoction for cramps, dysmenorrhea, hysteria, and rheumatism (JFM).
- Guineans apply ground fresh leaves to swellings and wounds (KAB).
- Haitians take leaf/root decoction for inflammation and sores of the leg (VOD).
- Haitians use plant for acne, asthma, burn, colic, constipation, edema, emotional problems, gonorrhea, headache, infection, malaria, ophthalmia, rash, rheumatism, and shock (RAI; VOD).
- Jamaicans give children the leaf decoction, perhaps under the name pis-a-bed, to prevent bed wetting (JFM).
- Konkanese use seeds to treat pediatric convulsions (KAB).
- Mandingo of Gambia regard the plant as a panacea (KAB).
- Mexicans take for chills, dermatosis, dyspepsia, earache, eczema, edema, fatigue, fever, headache, inflammation, leprosy, nausea, pain, rash, rheumatism, ringworm, sore, stomachache, swelling, tumor, VD, worms, and yellow fever (RAI).
- Nepalese eat roasted seed for cough and headache (NPM).
- Nepalese paste the plant onto dropsy, rheumatism, snake bite, and VD (NPM).
- Nepalese take about 6 tsp root juice for fever and worms (NPM).
- Nepalese take the seed for asthma, constipation, dyspepsia, and gastrosis (NPM).
- Peruvians drink the “coffee” for asthma, the flower decoction for bronchosis, and also use the plant for fever, hepatitis, and oliguria (RAR).

- Trinidadians take root decoction or infusion as abortifacient, antiinflammatory, depurative, febrifuge, and after childbirth (JFM).
- Venezuelans take for asthma, cold, dermatosis, dysmenorrhea, enterosis, fever, gas, malaria nervousness, and oliguria (JTR; RAI).
- West Indians drink the decoction and apply leaves to the body for fever (JFM).

#### Downsides:

While many books describe the plant as edible, the seeds a coffee substitute, even Latin American books may note that the seeds are toxic, causing kidney problems and gastroenteritis (DLZ). May cause cardiomyopathy in rabbits. Chrysarobin and toxalbumin may cause kidney and liver damage. Regular users of anthranoids as cathartics, including the sennosides now in some OTC preparations, may exhibit colonic redundancy and dilatation more frequently than patients who have not (X14708639). "The plant is fatally toxic to cattle fed 1% of body weight for 7 days" (JFM). One percent of my body weight would be close to 5 pounds; we grazers don't graze that much, so I'll not be afraid to try it next time I see it. "The whole plant is purgative; this property extends to the seeds, but in them is destroyed by torrefaction when they are made into 'coffee'" (IHB). As of July 2007, the FDA Poisonous Plant Database listed 73 titles alluding to toxicity of this species.

#### Extracts:

Ethanollic leaf extracts active against *Plasmodium* (IC50 < 3 µg/ml) (X15182900). Leaf extracts exhibited significant broad spectrum activity against *B. subtilis* and *S. aureus* (X10661885). This species contains apigenin, a COX-2-Inhibitor, and COX-2-I's are suggested to prevent colon cancer.

### LAUREÑO (*Senna reticulata* (Willd.) H. S. Irwin & Barneby) ++

#### FABACEAE

#### Synonyms:

*Cassia reticulata* Willd. (basionym); fide (USN).

#### Common Names:

Baraja (Ma.; JFM); Barajillo (Ma.; JFM); Barajo (Ma.; JFM); Bicutema (Col.; IED); Corance (Col.; IED); Inanabiske (Cuna; IED); Laurenyo (Pan.; IED); Majaguillo (Ma.; JFM); Martingalvas (Col.; IED); Paskua (Bribri; IED); Piria (Cuna; Ma.; IED; JFM); Retama (Peru; Sp.; LOR); Sambran (Ma.; JFM); Sambran de Rio (Ma.; JFM); Sambran Priteo (Ma.; JFM); Sapechihua (Peru; RAR); Sapechihuayo (Peru; RAR); Saragundi (Ma.; JFM); Saragundin (Ma.; JFM); Shunashut (Peru; JFM; RAR); Sorocontil (Ma.; Nic.; IED; JFM); Tarantan (Ma.; JFM); Wild Senna (Jam.; IED); Yaaxhabin (Ma.; JFM). (Nscn)

#### Activities:

Analgesic (f; IED); Antiseptic (f; DAV); Bactericide (1; DAV); Emmenagogue (f; JFM); Febri-fuge (f; SAR); Fungicide (f; SAR); Insectifuge (f; SAR); Purgative (f; EB24:356; IED).

#### Indications:

Amenorrhea (f; JFM); Arthrosis (f; DAV); Bacteria (1; DAV); Bites (f; IED); Bleeding (f; IED); Cardiopathy (f; SAR); Dermatitis (f; DAV); Dysmenorrhea (f; DAV; IED); Dyspepsia (f; DAV); Fertility (f; DAV); Fever (f; SAR); Fungus (f; SAR); Gastrosis (f; DAV); Gonorrhoea (f; SOU); Hepatosis (f; IED; JFM); Infection (f1; DAV; SAR); Mange (f; IED); Mycosis (f1; DAV); Nephrosis (f; DAV; SOU); Pain (f; IED); Rashes (f; IED); Rheumatism (f; JFM); Ring-worm (f; IED); Snake Bite (f; JFM); Sores (f; IED); Stings (f; IED); Stomachache (f; DAV; EB29:286; IED); Swelling (f; DAV); VD (f; JFM; SOU).

**Dosages:**

FNFF = ? Other *Cassia* and *Senna* species have edible flowers, fruits, and shoots, but I consider this one more medicine than food (JAD).

- Infertile Rio Congo (Darien, Panama) women drink a tea of 15 leaves with anis. If still sterile after 6 months of the treatment, divorce is in order (IED).

**SICKLE-POD SENNA (*Senna tora* (L.) Roxb.) +****FABACEAE****Illustrations:**

pl 353 (KAB)

**Synonyms:**

*Cassia foetida* Pers.; *C. obtusifolia* L.; *C. tora* L.; *C. toroides* Roxb.; fide (KAP; USN).

**Notes:**

Rightly or wrongly, Liogier (1974), like the Indian Council of Medical Research (MPI) and Porcher (POR), equate *C. tora* with *C. obtusifolia*; the USDA Nomenclature Database (USN) retains them as separate species.

**Common Names:**

Aya Poroto (Peru; Sp.; LOR; MDD); Ayudham (Sanskrit; KAB); Balatongaso (Tag.; KAB); Biche Manso (Mex.; AVP; JFM); Bicho (Sp.; POR; USN); Bicho Macho (Sp.; JFM); Brusca Cimarrona (Dor.; Sp.; AVP; KAB; POR); Brusca Hembra (Dor.; Sp.; AHL); Brusca Negra (Sp.; JFM); Cakamake (Nepal; POR); Cakramarda (India; OFF); Cañafistola Cimarrona (Sp.; JFM; SOU); Carkor (Nepal; POR); Cassier Sauvage (Fr.; POR; USN); Catanda (Tag.; KAB); Catandangaso (Tag.; KAB); Chagache (Kan.; KAB); Chakaoda Arak (San.; KAB); Chakavat (Hindi; KAB; POR); Chakod (Hindi; POR); Chakon (Tharu; NPM); Chakor (Danuwar; Mooshar; NPM); Chakramanda (Sanskrit; KAP; POR); Chakramandi (Nepal; SUW); Chakramandrakam (Mal.; KAB; POR); Chakramarda (Sanskrit; ADP; KAB; MPI); Chakramardaka (Sanskrit; KAB); Chakunda (Ben.; Hindi; Oriya; Pun.; ADP; KAB; KAP; MPI; POR; WOI); Chakvad (Hindi; POR); Charota (Hindi; POR); Cheuh Ming (China; KAP); Chhinchhine (Nepal; NPM); Chichankinab (Maya; JFM); Chilbile (Tharu; NPM); Chilinchil (Sp.; JFM); Chinnakasinda (Tel.; POR); Chiquechicue (Sp.; JFM); Chogache (Kan.; KAB); Chogata (Kan.; KAB); Choum Het Thay (Thai; POR); Chow Keat (Malaya; KAB); Chueh Ming (China; KAB); Chumhet Thai (Thai; POR); Coffeeweed (Eng.; FAC); Dadamandan (Sanskrit; KAB); Dadamari (Sanskrit; ADP; KAB; POR; WOI); Daddupan (Kon.; MPI); Dadrugna (Sanskrit; KAB; POR); Dandelion (Eng.; JFM); Dangwe (Burma; KAB); Dangywe (Burma; KAB); Dan Kilay Iwai (Burma; KAP); Dau Giau (Ic.; KAB); Dau Ma (Ic.; KAB); Dormidera (Pr.; AVP; JFM); Dormilon (Sp.; JFM); Ehisugusa (Japan; KAP); Ejote de Invierno (Sp.; JFM); Ejotil (Sp.; JFM); Fedegoso Branco (Por.; JFM); Fetid Cassia (Eng.; NPM; POR); Fever Weed (Eng.; NPM); Foetid Cassia (Eng.; USN); Gandutogache (Kan.; POR); Guanina (Cuba; AVP); Gundutagache (Kan.; KAB); Hatumpacte (Sp.; SOU); Java Bean (Aust.; Eng.; USN); Java Senna (Eng.; POR); Jue Ming (China; Pin.; POR); Jue Ming Zi (Pin.; AH2; DAA); Kararia (Guj.; POR); Kasiamasiama (Congo; AVP); Kawario (Guj.; KAB); Kovaria (Bom.; Guj.; KAB); Kovariya (Guj.; ADP; WOI); Kowaria (Bom.; KAB); Koyaraya (Guj.; MPI); K-Tuab (Mex.; AVP; MAX); Kujne (Burma; KAB); Kuvadiao (Guj.; Porebunder; KAB); Lac Gioi (Ic.; KAB); Lap Mun (Laos; POR); Laureño (Sp.; JFM); Low Senna (Ma.; JFM); Mamuricillo (Bol.; DLZ); Manimanihan (Tag.; KAB); Mata Pasto (Brazil; AVP); Methighans (Nepal; NPM); Meun Quyet Minh (Ic.; KAB); Mmorfra Brorde (Twi; KAB); Mongonon-

gohan (Tag.; KAB); Mungumunguba (Congo; AVP); Mwango (Swahili; KAB); Nia Leung (Ic.; KAB); Ororuz (Sp.; POR; USN); Pamad (Hindi; KAB); Pambadiar (Lambadi; KAB); Panevar (Ben.; Hindi; KAB; WOI); Panuwar (Yunani; KAP); Panwar (Dehra Dun; Nwp.; Pun.; KAB); Pawar (Pun.; KAB); Pawas (Pun.; KAB); Petite Casse Puante (Fr.; KAB); Petitora (Sin.; KAB); Pistache Marron (Haiti; AHL; AVP); Pititora (Sin.; KAP); Pois Piant (Fr.; Haiti; AHL; USN); Pois Puant (Fr.; USN); Ponvadio (Guj.; Porebunder; KAB); Prabhunatha (Sanskrit; KAB); Prapunnada (India; OFF); Prapupatri (Sanskrit; KAB); Praputrata (Sanskrit; KAB); Prishnaparni (Sanskrit; KAB); Punvar (Cutch; KAB); Qiochorrios (Bol.; Chiquitano; DLZ); Quyet Minh (Ic.; KAB); Ringworm Plant (Eng.; NPM); Sangsaboyah (Iran; KAB); Sanjbasoyah (Arab.; Iran; KAP); Sanjsaboyah (Arab.; KAB); Sanotapre (Nepal; NPM); Sasa Lingling (Tamang; NPM); Séené (Guad.; AVP; POR); Senavu (Tam.; KAB); Séné Tapre (Nepal; POR); Sicklepod (Eng.; CR2; USN); Sicklepod Senna (Eng.; Scn.; AH2; USN); Sickle Senna (Eng.; ADP; NPM; USN); Siklaio (Sp.; SOU); Sirutagarai (Tam.; KAB); Sou Marqué (Guad.; AVP); Sou Marqué Bâtard (Guad.; AVP); Stinking Cassia (Eng.; POR; USN); Tafasa (Hausa; Sudan; AVP; KAB); Taga (Sanskrit; KAB; POR); Tagache (Kan.; KAB); Tagarai (Tam.; ADP; KAB; MPI; POR; WOI); Tagirisa (Tel.; MPI); Tagirise (Tel.; KAB); Tajanku (Tulu; KAB); Takala (India; Mar.; KAB; POR; USN); Takara (Mal.; KAB; MPI; POR); Takla (Mar.; ADP; KAB; WOI); Tamo (Bol.; DLZ); Tankala (Bom.; Mar.; KAB; MPI); Tankil (Mar.; ADP; WOI); Tankli (Mal.; KAB); Tantemu (Tel.; ADP; KAB; WOI); Tantiyamu (Tel.; KAB); Taper (Nepal; POR; SUW); Tapre (Chepang; Magar; Majhi; Nepal; Rai; KAP; NPM; POR; SUW); Taragasi (Kan.; KAB); Taranvatra (Mar.; KAB); Tarota (Dec.; Mar.; KAB); Thal Ka (Tibet; KAP); Thal Kar Rdo Rje (Tibet; NPM); Thao Kit Tam (Ic.; KAB); Tinkose (Raute; NPM); Tora (Brazil; AVP); Tsao Chueh (China; KAB); Ts'ao Kiue Min (China; KAB); Tumisia (Congo; AVP); Usittagarai (Tam.; KAB); Vaddutakarai (Sri.; KAB); Vanamamaram (Tam.; KAB); Vanavarike (Kan.; KAB); Vindu (Tam.; KAB); Voamahatsara (Betsileo; KAB); Voatelondolo (Betsileo; KAB); White Broom (Ma.; JFM); Wild Senna (Eng.; Ocn.; AH2; POR); Wita (Congo; AVP); Xiao Jue Ming (Pin.; AH2; POR); Zélou (Sudan; AVP).

### Activities:

Abortifacient (f; KAP); Acarifuge (f; DAV); AGE-Inhibitor (1; X16903080); Alexiteric (f; KAP); Alterative (f; KAP); Analgesic (f1; MPI; X12065152); Anthelmintic (f; KAB; KAP; NPM; WO2); Antigenotoxic (1; X11368639; X15501482); Antioxidant (1; WO3; X10898619); Antiperoxidant (1; X10319159); Antiplasmodial (1; X10479756); Antiseptic (f1; MPI; WO2; X10478467); Antispasmodic (f; JFM); Antistaphylococcic (1; X10478467); Antiviral (1; MPI); Aperient (f; DEP; KAB; KAP); Astringent (f; DEP); Bactericide (1; WO2; X10478467); Bitter (1; FAY); Bradycardiac (1; DAA); Depurative (f; WO2); Diuretic (1; FAY); Febrifuge (f; JFM); Fungicide (1; FAY; WO2; X1143018; X15453672); Hepatoprotective (1; WO3); Hypocholesterolemic (12; FAY; X15013188); Hypolipidemic (1; X15013188); Hypotensive (1; DAA; FAY); Hypotriglyceridemic (1; X15013188); Insecticide (1; WO2); Ixodifuge (f; DAV); Larvicide (1; X12322944); Laxative (f; KAP; SUW; WOI); Lipolytic (1; FAY); Mosquitocide (1; X12322944); Mutagenic (1; WO3); Oxytotic (1; KAP; WO2); Pain (1; X12065152); Parasiticide (f; MPI); Peroxynitrite Scavenger (1; X15482647); Piscicide (1; WO2); Purgative (f; DEP; NPM; WO2); Toxic (f; WO2); Uterocontractant (1; WO2).

### Indications:

Arthrosis (f; DAA); Bacteria (1; FAY; WO2; X10478467); Boils (f; DAA; KAB); Bubo (f; ADP); Cancer (f; DEP; SUW); Cardiopathy (1; WO3); Cataracts (f; DAA; FAY); Cheloid (f; ADP; DEP); Childbirth (f; ADP); Conjunctivitis (f; FAY; WO3); Constipation (f1; ADP; FAY; WOI); Cornea (f; FAY); Coughs (f; WO2); Dentition (f; ADP; KAP); Dermatitis (f; DEP; KAP; NPM; SUW; WOI); Dysentery (f; DAA; KAB; WO2); Dyspepsia (f; NPM); Eczema



(f; ADP; KAP; WO2); Enterosis (f; KAB; KAP); Erysipelas (f; DLZ); *Escherichia* (1; WO2); Fatigue (f; FAY); Fever (f; IED; KAP; NPM); Fracture (f; WO2); Fungus (f1; FAY; NPM; SUW; WO2; X1143018); Furuncles (f; DAA); Glaucoma (f; DAA; FAY); Gonorrhoea (f; ADP); Gout (f; KAP); Headache (1; DAA; FAY); Hepatosis (1; DAA; FAY; KAB; WO3); Herpes (f; DAA); High Blood Pressure (1; FAY); High Cholesterol (12; FAY; X15013188); Impetigo (f; WO2); Induration (f; DEP); Infection (1; FAY; WO2; X10478467); Inflammation (f1; ADP; FAY; WO2); Itch (f; DAV; DEP; NPM; SUW); Leprosy (f; ADP; DEP; IED; NPM; SUW); Lethargy (f; FAY); Leukoderma (f; NPM); Malaria (1; KAP; X10479756); Mange (f; JFM); Mycosis (f1; FAY; NPM; SUW; WO2; X15453672); Obesity (f; FAY); Ophthalmia (f; DAA; FAY; KAB; WO2); Pain (f1; FAY; MPI); Plague (f; DEP; IED); Proctosis (f; WO3); Psoriasis (f; ADP; DEP; IED); Ringworm (f1; DAV; DEP; IED; KAP; NPM; SUW; WO3); *Salmonella* (1; WO2); Scabies (f; KAP); Sciatica (f; KAP); Snake Bite (f; KAP; SUW); Sores (1; DAA; DEP; WO2); Spermatorrhea (f; WO3); Stomachache (f; FAY; NPM); Swelling (f; FAY); Syphilis (f; JFM); Tumors (1; ADP); VD (f; ADP; JFM); Vertigo (1; FAY); Viruses (1; MPI); Water Retention (f; FAY); Worms (f; KAB); Wounds (1; WO2).

### Dosages:

FNFF = !! Young shoots cooked and eaten; seeds eaten like beans; scorched and used to make coffee (FAC). 1–3 g powdered seed (KAP); 5–15 ml tea (KAP).

- Asian Indians suggest a paste of seeds steeped in *Euphorbia neriiifolia* latex and cows urine for cheloid tumors (ADP).
- Beni natives suggest the pod decoction as a wash for erysipelas and other dermatoses (DLZ).
- Brazilians rub the leaf juice on animals to repel ticks (DAV).
- Chaco natives decoct the pods (devoid of seed) for cough (DLZ).
- Cubans take leaf and root decoction for fever (JFM).
- Cubans take roasted seed decoction as an antispasmodic (JFM).
- Cubans wash dermatoses with the root decoction (JFM).
- Dominicans suggest taking with lettuce leaves to prevent the colic side effect, with coffee, anise, or lemon to prevent nausea (AHL).
- Indochinese use pods for dysentery and ophthalmia (KAB).
- Kondh Tribals poultice a paste of the senna seeds and haldi seeds onto gonorrhoea (ADP).
- Mexicans use the leaf decoction to bathe various skin ailments (MAX).
- Tribals in India eat young seedlings to facilitate childbirth (ADP).
- Venezuelans drink decoction or take enema as a laxative (JFM).

### Downsides:

Class 2b, 2c, 2d (AHP). Commission E and other sources report interaction of anthranoid laxatives (AEHD; KOM). Anthranoid-containing laxatives can be habit-forming; some contain compounds suspected of being cytotoxic, genotoxic, mutagenic, and even tumorigenic; epidemiological studies in Germany reveal that abusers of anthranoid laxatives have three times higher rate of colon carcinoma. As of July 2007, the FDA Poisonous Plant Database listed 15 titles alluding to toxicity of this species.

### Extracts:

Torachryson, toralactone, aloe-emodin, rhein, and emodin were bactericidal against methicillin-resistant *Staphylococcus* (MIC = 2–64 µg/ml) (X10478467). Alaternin and two naphthopyrone glycosides, nor-rubrofusarin-6-beta-D-glucoside (cassiaside) and rubro-fusarin-6-D-gentiobioside, were radical scavengers; chrysophanol, chryso-obtusin, aurantio-obtusin, cassiaside, and rubro-fusarin-gentiobioside demonstrated significant antimutagenic activity (X9063089). Seed extracts contain at least 5 hepatoprotective compounds.

**SEA PURSLANE (*Sesuvium portulacastrum* (L.) L.) ++****AIZOACEAE****Synonyms:**

*Portulaca portulacastrum* L. (basonym); fide (USN).

**Common Names:**

Azucena de Mar (Ma.; JFM); Banana di Rif (Ma.; JFM); Beldroega-da-Praia (Por.; AVP; JFM; USN); Camburito (Ma.; JFM); Cencilla (Sp.; USN); Cenicienta (Ma.; JFM); Cenicilla (Ma.; JFM); Conejera (Ma.; JFM); Coupe-Pied (Haiti; AVP; JFM); Coupier (Ma.; JFM); Hai Ma Chi (China; USN); Heruy (Arab.; UPW); Hierba de Conejo (Ma.; JFM); Litho (Ma.; JFM); Meerportulak (Ger.; USN); Platanillo (Dom.; AVP); Pourpier Bord de Mer (Haiti; USN); Pourpier de Mer (Fr.; USN); Pourpier des Plages (Fwi.; AVP); Pourpier Maritime (Fr.; UPW); Pourpier Tres Amer (Haiti; USN); Purslane (Ma.; JFM); Purslane-Leaved Samphire (Jam.; AVP); Sampier (Jam.; AVP); Sea-Purslane (Eng.; USN); Seaside Purslane (Eng.; Ma.; JFM; USN); Seaside Samphire (Eng.; Ma.; JFM; USN); Shoreline Sea-Purslane (Eng.; USN); Tsaycan (Ma.; JFM); Verdaguillo (Dom.; AVP); Verdolaga (Ma.; JFM); Verdolaga de Costa (Cuba; AVP); Verdolaga de Hoja Ancha (Pr.; AVP); Verdolaga de la Playa (Ma.; JFM); Verdolaga Rosada (Pr.; AVP); Vidrillo (Ma.; JFM); Yerba de Sapo (Cuba; AVP); Yerba de Vidrio (Pr.; AVP; JFM).

**Activities:**

Antidote (fish sting) (f; UPW); Antiscorbutic (1; FNF; UPW); Bactericide (1; X16243465); Emollient (f; DAW); Febrifuge (f; JFM); Fungicide (1; X16243465); Hemostat (f; UPW); Insecticide (f; UPW); Vermifuge (f; DAW).

**Indications:**

Bacteria (1; X16243465); Bleeding (f; UPW); Burns (f; JFM); *Candida* (1; X16243465); Congestion (f; JFM); Cystosis (f; JFM); Fever (f; JFM); Fungus (1; X16243465); Hepatosis (f; JFM); Infection (1; X16243465); Nephrosis (f; JFM); Pulmonosis (f; JFM); Scurvy (1; UPW); *Staphylococcus* (1; X16243465); Stings (f; UPW); Worms (f; DAW).

**Dosages:**

FNFF = ! After washing to remove salt, plants are eaten as salad or vegetable (FAC). Hot crushed plant applied to chest for congestion; cold compresses (and decoction) to burns (JFM).

**Extracts:**

The Leaf EO exhibited antibacterial activity against *Acetobacter calcoacetica*, *Bacillus subtilis*, *Clostridium sporogenes*, *C. perfringens*, *Escherichia coli*, *Salmonella typhi*, *Staphylococcus aureus*, and *Yersinia enterocolitica*, and antifungal activity against *Aspergillus flavus*, *A. niger*, *Candida albicans*, and *Penicillium notatum* (X16243465).

**BROOMWEED (*Sida acuta* Burm. f.) +****MALVACEAE****Illustrations:**

pl 121 (KAB)

**Synonyms:**

*Sida carpinifolia* L.; fide (POR).

**Common Names:**

Afidemii (Ewe; KAB); Anu Kuruka (Ven.; JFM); Aponor (Twi; KAB); Babosa (Ven.; AVP); Babosilla (Sp.; POR; USN); Bai Choi (Ic.; KAB); Bala (Bom.; Porebunder; Sanskrit; KAB); Balai Midi (Fr.; POR); Balai Onze Heures (Fr.; POR); Balai Savane (Fr.; POR); Bala Janglimethi (Guj.; KAB); Bariari (Hindi; KAB); Blai Cinq Heures (Haiti; AVP); Bonmethi (Ben.; KAB); Broomweed (Bel.; Eng.; BNA; POR; USN); Cha da India (Goa; KAB); Chichibe (Bel.; Mex.; BNA; JTR); Chikana (Mar.; KAB); Chittimu (Tel.; KAB); Common Wireweed (Eng.; POR); Didinglorme (Krepi; KAB); Diléé-Kpahou. (Afr.; POR); Dilé-Kpahou. (Africa; POR); Escoba Blanca (Ecu.; Pr.; Sp.; DAG; POR; USN); Escobaghaba (Tag.; KAB); Escobilla (Cr.; Sp.; AVP; POR; USN); Escobilla Blanca (Sp.; POR; USN); Escobilla Negra (Cr.; AVP); Escobita (Dor.; His.; AHL); Gasbevila (Sin.; KAB); Grosse Herbe Dure (Fr.; Réunion; KAB; POR); Guaxuma (Brazil; USN); Guimave à Petites Fleurs (Haiti; His.; AHL); Guimave Satinée à Feuilles d'Orme (Haiti; AVP); Guisho (Ecu.; DAG); Herbe à Paniers (Fr.; POR; USN); Herbe Dure (Fr.; POR); Huinar (Sp.; POR; USN); Ikulaende (Congo; AVP); Isbadi (Dec.; KAB); Jocuchu Chupa (Peru; EGG; SOU); Kafufula (Congo; AVP); Katsaynai (Burma; KAB); Kelulut Putih (Malaya; KAB); Khat Mon Noi (Laos; POR); Kwala (Cuna; IEB); Lokulilo (Congo; AVP); Malaidangi (Tam.; KAB); Malatanni (Mal.; KAB); Malva (Bel.; BNA); Malva Colorado (Mex.; Sp.; AVP; JTR; POR; USN); Malva de Caballo (Cuba; AVP); Malva de Castilla (Sp.; POR; USN); Malva de Platanillo (Mex.; JTR); Mes-Be'l (Bel.; BNA); Muvumvu (Congo; AVP); Palambasi (Madras; KAB); Pamalis (Pam.; KAB); Petit Lalo (Haiti; His.; AHL); Pichana (Peru; EGG); Relógio-de-Vaqueiro (Brazil; USN); Relógio-Vassoura (Brazil; USN); Sagàdi Abuídagùlei (Garifuna; IED); Sébié (Africa; POR); Shuorblor (Ga; KAB); Silhigon (Vis.; KAB); Siobola (Oriya; KAB); Sirivadibabila (Andamans; KAB); Southern Sida (Eng.; POR; USN); Sowa (Ashanti; KAB); Spiny-Head Sida (Aust.; Eng.; POR; USN); Tchéékpak-Tchura (Africa; POR); Ti Lalo (Haiti; His.; AHL); Tupitcha (Tupin; KAB); Tupitixa (Brazil; USN); Vassoura (Brazil; KAB); Vassoura-Preta (Brazil; USN); Vassourinha (Brazil; USN); Vishakaddi (Kan.; KAB); Wire Weed (Bel.; Eng.; BNA; POR); Zéépouhou (Africa; POR).

**Activities:**

Abortifacient (f; EB32:305; KAB; WOI); Analgesic (f; WOI); Antihemorrhagic (1; X10940590; X11025161); Antimalarial (f1; X14611894; X15185848); Antiplasmodial (f1; X14611894; X15185848); Aphrodisiac (f; WOI); Astringent (f; EB32:305; WOI); Bitter (f; KAB); Demulcent (f; WOI); Depurative (f; EB30:132; EB32:305); Diaphoretic (f; KAB); Digestive (f; KAB); Diuretic (f; DAV; KAB; WOI); Emollient (f; AHL; WOI); Febrifuge (f; EB25:61; EB30:132); Hemostat (f; JTR); Orexigenic (f; KAB); Pediculicide (f; DAV); Quinone Reductase-Inducer (1; X12967190); Refrigerant (f; EB32:305; WOI); Sedative (f; JFM); Stomachic (f; PCS); Suppurative (f; KAB); Tonic (f; EB32:305; WOI); Vermifuge (f; WOI).

**Indications:**

Ague (f; PCS); Bleeding (f1; JTR; X10940590; X11025161); Boils (f; KAB); Bronchosis (f; JFM); Cancer (f; JLH); Catarrh (f; JFM); Childbirth (f; EB33:326); Colds (f; JFM); Colic (f; JFM); Conjunctivitis (f; JFM); Coughs (f; IHB; JFM); Dysentery (f; PCS); Dysmenorrhea (f; IED); Dysuria (f; KAB); Elephantiasis (f; WOI); Enterosis (f; KAB); Epistaxis (f; JFM); Erysipelas (f; DAW); Fever (f; EB25:61; EB30:132; EB32:305; WOI); Gingivitis (f; JFM); Gonorrhoea (f; KAB); Headache (f; DAV; EB25:61); Hematemesis (f; MAX); Hemorrhage (1; X10940590; X11025161); Hemorrhoids (f; JFM; WOI); Impotence (f; KAB; WOI); Insomnia (f; JFM); Leukorrhoea (f; MAX); Malaria (f1; PCS; X14611894; X15185848); Marasmus (f; EB30:132); Migraine (f; DAV); Nausea (f; EB33:326; JTR);

Neurosis (f; EB32:305); Orchosis (f; WOI); Pain (f; WOI); Paralysis (f; KAB); Pediculosis (f; DAV); Pneumonia (f; EB25:61); Pulmonosis (f; IED; JFM; WOI); Respirosis (f; IED); Rheumatism (f; WOI); Snake Bite (f1; PCS; X10940590; X11025161); Sores (f; EB32:305); Sore Throat (f; AHL); Swelling (f; WOI); Tumors (f; JLH); Urogenitosis (f; EB32:305); VD (f; KAB); Worms (f; WOI).

**Dosages:**

FNFF = !!

- Asian use the bitter root in a ginger tea for malaria (KAB).
- Gold Coastals use for VD, stillbirths, and for paralyzed infants; also as abortifacient (KAB).
- Haitians poultice leaves on boils and erysipelas, using the tea (30–50 g leaf/liter water) as emollient and sedative, as a gargle for gingivitis, and as an enema for enterosis (JFM).
- Hindus use as a stomachic in chronic bowel complaints (KAB).
- Hispaniolans use the tea in enemas, gargles, or mouthwash, and as emollient (AHL).
- Ivory Coastals use for treating malaria (X15185848).
- Konkani apply root with sparrow's dung to mature oils (KAB).
- Mohammedens consider the plant aphrodisiac (KAB).
- Nicaraguan Garifuna use the decoction for aches and pains, childbirth and pregnancy, respiratory-pulmonary disorders, venereal diseases, and menstrual disorders (IED).
- Palikur poultice leaves onto the forehead for migraine headache (DAV).
- Venezuelans take leaf decoction for conjunctivitis and tired eyes (JFM).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed eight titles alluding to toxicity of this species.

**Extracts:**

Cryptolepine antiplasmodial; powdered plant extract antiplasmodial against *Plasmodium falciparum*, chloroquine-resistant strain and a Nigerian chloroquine-sensitive strain (IC<sub>50</sub> = 3.9 to 5.4 µg/ml) (X15185848). *In vitro* study shows significant antiplasmodial activity against *Plasmodium falciparum* (IC<sub>50</sub> < 5 µg/ml) (X14611894). EtOAc-soluble extract of the whole plant induces quinone reductase (X12967190). Whole plant extract had moderate neutralization against the haemorrhagic effect of *Bothrops atrox* venom at doses up to 4 mg/mouse (X10940590; X11025161).

**HEART-LEAF-SIDA (*Sida cordifolia* L.) ++****MALVACEAE****Illustrations:**

pl 119A (KAB)

**Synonyms:**

*Sida althaeifolia*; *S. herbacea*; *S. micans*; *S. rotundifolia*; fide (DEP).

**Notes:**

USDA terms this species pantropic (USN).

**Common Names:**

Antisa (Tel.; KAB); Arival (Tam.; KAP); Babosa (Ven.; AVP); Badianaula (Oriya; WOI); Badiyalaka (Sanskrit [1 of 34]; KAB); Baiyalaka (Sanskrit; DEP); Bala (Ayu.; Ben.; San-

scrit; Tibet; AH2; KAP; OFF; POR); Bala Baldana (Guj.; WOI); Baladana (Guj.; SKJ); Balai Onzes Heures (Guad.; Mart.; AVP); Balai Poilu (Fr.; Guad.; Mart.; AVP; UPW); Baldana (Guj.; ADP); Balèndo (Sen.; UPW); Balnochotvo (Porebunder; KAB); Balu (Nepal; Ranikhet; KAB; KAP; POR); Bariar (Hindi; DEP; NAD); Barila (Ben.; KAB); Bijband (Sanskrit; Sin.; DEP; NAD); Bisvokopari (Oriya; KAB); Borla (Sanskrit; HOC); Brella (Ben.; DEP; NAD); Burrayra (Sin.; KAB); Caballo Usa (Peru; EGG); Chevakampuda (Sri.; SKJ); Chikana (Mah.; Mar.; DEP; SKJ); Chirubenda (Ap.; Tel.; ADP; SKJ); Chitaamuttie (Tamil; POR); Chuka (Pun.; DEP); Country Mallow (Eng.; CR2; POR); Dikombo Kombo (Congo; AVP); Escoba Acoroazanada (Pr.; AVP); Fanpetals (Eng.; Ocn.; AH2); Farin Garmani (Nig.; UPW); Flannelweed (Eng.; Ocn.; AH2; CR2; POR; USN); Futu (Congo; AVP); Garamani (Sokoto; KAB); Heart-Leaf Sida (Eng.; Scn.; AH2; POR; USN); Helugure (Sierra Leone; UPW); Hettuthi (Kan.; WOI); Hinadona (Sin.; KAB); Huang Hua Zi (Pin.); Huring Mindilata (Mun.; KAB); Ilama (Sp.; POR); Inglimethi (Guj.; NAD); Kamvumvu (Congo; AVP); Kantang Bai Sa (Cam.; KAB); Kardafa (Katagum; KAB); Katturam (Ker.; KAB; SKJ); Kedon (China; KAP); Ke Dong (China; POR); Kelulipulli (Malaya; KAP); Kelulut Putih (Malaya; KAB); Kharent (Pun.; KAB); Kharenti (Gwalior; Hindi; Yunani; KAP; NAD; SKJ); Khareti (Guj.; Hindu; KAB; KAP); Khiranti (Mar.; KAB); Kissangi (Kan.; NAD); Kobir Sir Bhaji (Kon.; NAD); Kotikanbevila (Sin.; KAP); Kowar (Pun.; WOI); Kumpa (Fanti; Ghana; KAB; UPW); Kungyi (Hindi; WOI); Kurunthotti (Mal.; ADP; WOI); Lavaplato (Ven.; AVP); Lei Ilama (Haw.; HOC); Llima (Eng.; Ocn.; Sp.; AH2; POR); Maikafo (Hausa; KAB); Malva Blanca (Cuba; Sp.; AVP); Malva Branca (Brazil; AVP); Marang Lupa Arab (Mun.; WOI); Marubakigojikuwa (Japan; KAP); Mauve (Réunion; KAB); Mayir Manikham (Tam.; NAD); Morochan (Ivo.; UPW); Muttava (Kon.; KAB); Nagbala (India; Sanskrit; ADP); Nilatupi (Tam.; SKJ); Nilatutti (Tam.; ADP; KAB; WOI); Nindio (Upper Volta; UPW); Pichana (Peru; EGG); Pokok K lulut Puteh (Malaya; IHB); Sarakbuti (Bihar; SKJ); Simak (Pun.; NAD); Sinchi Pichana (Peru; EGG); Swetberela (Ben.; ADP; WOI); Tella-Antisa (Tel.; DEP; WOI); Tshinkamakiyaya (Hausa; Niger; UPW); Tupkaria (Bom.; Mah.; NAD); Tutturabenda (Tel.; NAD); Velluram (Mal.; NAD); Vellurum (Mal.; ADP).

### Activities:

Abortifacient (f; HDN); Alterative (f; KAP); Amebicide (1; HDN; WOI); Analgesic (1; X10967481; X17545101); Anticonvulsant (1; HDN); Antiedemic (1; X10967481); Antiinflammatory (1; X10967481; X17545101); Antioxidant (1; X12648805); Antiperoxidant (1; X12648805); Antiradicular (1; X12648805); Aphrodisiac (f; DEP; HHB; KAB); Astringent (f; DEP; HDN; KAB; KAP); Bechic (f; KAB); Bitter (f; KAB); Bradycardiac (1; X16257496); Cardiotonic (f1; HDN; KAP; MBB; NAD; X16257496); Cerebrotonic (f; MBB); Circulotonic (f; MBB); CNS-Depressant (1; X15814259); Curare (f; UPW); Demulcent (f; NAD; WOI); Depurative (f; KAB); Digestive (f; KAB); Diuretic (f; WOI); Emollient (1; KAB; UPW); Febrifuge (1; HDN); Hypoglycemic (1; X10189958); Hypotensive (1; WOI; X16257496); Insecticide (1; UPW); Lipogenic (f1; UPW); Pectoral (f; KAB); Protisticide (1; WOI); Refrigerant (f; KAB; WOI); Sedative (f; KAP); Stomachic (f; KAP; NAD); Teratogen (1; ZUL); Tonic (f; DEP; HHB; KAB; MBB; WOI); Vasorelaxant (1; X16724548); Vulnerary (f; NAD).

### Indications:

Amebiasis (1; HDN; WOI); Angina (f; MBB); Arthrosis (f; HOC; MBB); Asthma (f1; KAP; UPW; X15814259); Bilioussness (f; WOI); Bleeding (f; KAB; KAP); Blennorrhoea (1; X10967481); Bronchosis (f1; MBB; UPW; X15814259); Bruises (1; LMP); Cardiopathy (f; MBB); Caries (1; HDN); Circulosis (f; MBB); Colic (f; DEP; KAB; SKJ; WOI); Congestion (f1; X15814259); Conjunctivosis (f; UPW); Convulsions (1; HDN); Coughs (f; KAB); Cystitis (f; KAP; WOI); Diabetes (1; X10189958); Diarrhea (f; HDN; UPW); Dysentery

(f; UPW; WOI); Dysmenorrhea (f; ADP); Dysuria (f; KAB; KAP; SKJ); Elephantiasis (f; KAP; WOI); Fever (f1; HDN; KAB; KAP; SKJ); Fungus (f; KAB); Gonorrhea (f; HHB; KAB; KAP; WOI); Hay Fever (1; UPW); Headache (f; LMP); Hematuria (f; NAD; WOI); Hemiplegia (f; DEP; WOI); Hemorrhoids (f; KAB; KAP; WOI); Hepatosis (f; ADP); Herpes (f; LMP); High Blood Pressure (1; WOI); Hookworm (f; UPW); Impotence (f; DEP); Inflammation (f1; KAB; X10967481; X17545101); Insanity (f; KAB; KAP); Leukorrhea (f; DEP; KAB; WOI); Low Blood Pressure (1; UPW); Lumbago (f; HDN); Malaria (f; DEP; HHB; KAB); Migraine (1; UPW); Myosis (f; MBB); Neuritis (f; KAB); Neurosis (f; HOC; KAB); Ophthalmia (f; KAB; NAD; UPW); Pain (f1; SKJ; X10967481; X17545101); Paralysis (f; DEP; KAB; KAP; WOI); Phthisis (f; KAB); Pneumonia (f; HDN); Polyuria (f; DEP; KAB; WOI); Pulmonosis (f; HDN); Rheumatism (f; HDN; HOC; KAP); Rhinosis (1; X15814259); Ringworm (f; KAB); Sciatica (f; KAB; NAD; WOI); Snake Bite (f; UPW); Sores (f; WOI); Spermatorrhea (f; KAB); Spondylosis (f; MBB); Sprains (f; UPW); Stiffness (f; NAD); Stomatosis (f; X15814259); Strangury (f; NAD; WOI); Swelling (f1; UPW; X10967481); Syphilis (f; HDN); Tenesmus (f; DEP; KAB; WOI); Throat (f; KAB); Tuberculosis (f; MBB); VD (f; KAB); Viruses (f; ADP); Wounds (f; KAB; NAD).

### Dosages:

FNFF = ? Leaves of other *Sida* species used as tea or vegetable (FAC). 1–3 g powder (KAP); 2–20 ml root tea (KAP).

- Assamese mix equal parts of mashed shoots and black pepper for excess menstruation (ADP).
- Assamese mix root decoction with juice of *Scoparia dulcis* for viral hepatitis, also chewing on the sida root (ADP).
- Ayurvedics consider the plant aphrodisiac, astringent, bechic, pectoral, and tonic, using for cough and dysuria, the fruit for bleeding piles, blood disorders, insanity, and phthisis (KAB).
- Cambodians use depurative and diuretic roots for gonorrhea and ringworm (KAB).
- Hindus use the astringent tonic roots, decocted with ginger, for malaria (DEP; KAP).
- Malaysians poultice leaves on the forehead for headache (LMP).
- Punjabi take the antivenereal and aphrodisiac seed for colic and tenesmus (DEP).
- Taiwanese apply plant to bruises and swelling (LMP).

### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed five titles alluding to toxicity of this species.

### Extracts:

Neuwinger (1996) presents new pharmacological data, some of it conflicting with what we already have. For example, vasicinone was reported as bronchoconstrictor *in vivo*, bronchodilator *in vitro*, in Neuwinger (1996), who gives us the activities for 1-ephedrine, while not specifically naming it in the plant. Beta-phenylethylamine is the parent of many different sympathomimetic phytochemicals. Well absorbed it easily crosses the blood-brain barrier, decreasing amine content in noradrenalin and dopamine-containing nerve terminals in the brain and in the peripheral adrenergic nerve terminals of rats (HDN). Its amphetamine-like action can be blocked by pretreatment with reserpine (HDN).

**TEAWEED (*Sida rhombifolia* L.) ++****MALVACEAE****Illustrations:**

pl 122 (KAB)

**Common Names:**

Afofa (Ma.; JFM); Ancocacha (Inga; Peru; RAR; SOU); Ancusachu (Peru; Sp.; LOR; SOU); Arrow-Leaf Sida (Eng.; Scn.; AH2); Atibala (India; AH2); Axocatzin (Ma.; JFM); Babosita (Ma.; JFM); Bai Bei Huang Hua Mu (Pin.; AH2; DAA); Bakaia (Congo; AVP); Balai Once Heures (Guad.; Mart.; AVP); Broomhue Ida (FAC); Broomweed (Bel.; BNA); Chá-Bravo (Por.; USN); Cuban Jute (Eng.; Ocn.; AH2); Datu Datu (Congo; AVP); Dope (Congo; AVP); Escoba Amarillo (Ma.; JFM); Escoba Babosa (Ma.; JFM); Escoba Blanca (Ma.; JFM); Escoba Colorado (Pr.; AVP); Escoba Lisa (Hon.; MPG); Escoba Negra (Ma.; JFM); Escobilla (Cr.; Hon.; AVP; MPG); Escobillo Blanco (Ma.; JFM); Fausse Guimauve (Guad.; Mart.; AVP); Faux Thé (Fr.; USN); Flor de Pasto (Peru; SOU); Guaxuma (Brazil; MPB); Herbe a Balai Sauvage (Guad.; Mart.; AVP); Hierba de Puerco (Ma.; JFM); Huang Hua Mu (Pin.; AH2; DAA); Huinar (Ma.; JFM); Huinare (Ma.; JFM); Huinari (Ma.; JFM); Huinaria (Ma.; JFM); Ijma Waqachi (Bol.; Que.; DLZ); Ironweed (Eng.; RAR); Ismu Waqachi (Aym.; DLZ); Jellyleaf (Eng.; RAR); Kubajute (Ger.; USN); Limpion (Ma.; JFM); Lituolo (Congo; AVP); Mababala (India; AH2); Malva (Dor.; Hon.; AHL; MPG); Malva de Cochino (Cuba; AVP); Malva de Chanco (Hon.; MPG); Malva Murruca (Hon.; MPG); Malva Preta (Brazil; MPB); Malvavisco (Ma.; JFM); Malvavisco Falso (Ma.; JFM); Mata Alfalfa (Ma.; JFM); Mesbe (Ma.; JFM); Mes Bel (Bel.; BNA); Mes Bl (Bel.; BNA); Miya Sanya (Afr.; AVP); Paddy's-Lucerne (Aust.; USN); Pelotzao Costenyo (Ma.; JFM); Pichana (Peru; Sp.; LOR); Pichancha de Cacique (Ma.; JFM); Queensland Hemp (Eng.; Ocn.; AH2); Relogio (Brazil; MPB); Sacha Mancua (Peru; SOU); Sacha Monqua (Ma.; JFM); Sacra Mancua (Peru; RAR); Sano Chillya (Nepal; SUW); Saquimesbe (Ma.; JFM); Sinchi Pichana (Peru; RAR); Strong Man Sampson (Peru; RAR); Teafeverweed (Eng.; RAR); Teaweed (Eng.; CR2; FAC); Tebincha (Ma.; JFM); Tipicha (Ma.; JFM); Tipicha Guazu (Ma.; JFM); Tupitixa (Brazil; MPB); Varilla (Peru; Sp.; LOR; RAR); Vassoura (Ma.; JFM); Vassoura de Relogio (Brazil; AVP); Vassourinha (Brazil; MPB); Vassourinha do Campo (Brazil; MPB); Wireweed (Eng.; RAR); Yute de Cuba (Ma.; JFM); Zanzo (Ma.; JFM).

**Activities:**

Analgesic (f; DAV; RAR), Antifertility (f; MPG); Antiinflammatory (f; TRA); Antiseptic (1; DAV; JFM; TRA); Antispasmodic (1; MPG); Aphrodisiac (f; DAV); Bactericide (1;

AAB; TRA; X13680839); Cytotoxic (1; X13680839); Demulcent (f; IED; SUW); Diuretic (f; IED; JFM; RAR); Emmenagogue (f; DAV; RAR); Emollient (f; IED; SUW; WBB); Expectorant (f; AAB); Febrifuge (f; DLZ; JFM); Fungicide (f; AAB); Gram(+)-icide (1; X13680839); Gram(-)-icide (1; X13680839); Lactagogue (f; DAV; JFM); Laxative (f; RAR); Propepic (f; MPB); Sedative (f; IED); Stimulant (f; MPG); Stomachic (f; IED); Tonic (f; JFM).

### Indications:

Abscesses (f; MPG); Adenopathy (f; IED); Alcoholism (f; JFM); Alopecia (f; DAV); Ascaris (1; MPG); *Bacillus* (1; MPG); Bacteria (1; AAB; TRA; X13680839); Bilioussness (f; DAV); Boils (f; DAV); Bronchosis (f; JFM); Bugbites (f; JFM); Burns (f; DAV); Catarrh (f; JFM); Childbirth (f; IED); Conjunctivosis (f; DAV); Constipation (f; RAR); Coughs (f; AAB); Cramps (1; MPG); *Cryptococcus* (1; MPG); Cystosis (f; MPG); Dermatitis (f; DAV; JFM); Diarrhea (f; IED; MPG); Dyslactea (f; JFM); Dysmenorrhea (f; JFM; MPG); Dyspepsia (f; DAV; IED; JFM); Dyspnea (f; DAV); Dysuria (f; AAB); Enterosis (f; JFM; JLH); Epilepsy (f; IED); *Escherichia* (1; MPG); Fever (f; DLZ; IED; JFM); Fungus (1; AAB; IED); Gastrosis (f; DAV; RAR); Gonorrhoea (f; AAB; DAV); Headache (f; IED); Hemorrhoids (f; DAV; JFM); Hepatosis (f; JFM; MPG); Impetigo (f; DAV); Impotence (f; DAV); Infection (f; AAB; DAV; IED; JFM; TRA; X13680839); Inflammation (f; TRA); Insomnia (f; IED); *Klebsiella* (1; MPG); Labor (f; IED); Leukorrhoea (f; DAV); Lupus (f; DAV; JFM); Malaise (f; IED); Malaria (1; MPG); Mycosis (1; AAB); Nausea (f; IED); Nephrosis (f; DAV; MPG); Pain (f; DAV; JFM; RAR); Phthisis (1; JFM); *Plasmodium* (1; MPG); Pregnancy (f; IED); Prolapse (f; IED); *Pseudomonas* (1; MPG); Pulmonosis (f; IED; SUW); Rheumatism (f; DAV; WBB); *Salmonella* (1; MPG); Snake Bite (f; DAV; WBB); Sores (f; DAV; RAR); Sprains (f; AAB); *Staphylococcus* (1; AAB); Stings (f; MPB); Swelling (f; SUW); Thrush (f; DAV); Tuberculosis (f; DAV; JFM; SUW); Tumors (f; DAV; JLH); Ulcers (f; DAV); Urethrosis (f; DAV; JFM); Uterosis (f; IED); UTIs (f; DAV); VD (f; IED); Water Retention (f; DAV); Worms (1; MPG); Wounds (f; DAV).

### Dosages:

FNFF = !! Leaves edible, used as tea substitute (FAC). Leaf mucilage suspended in water said to improve hair growth (MPB). 1 cup fresh leaf:3 cups water, boil 5 min, take 1 cup before each meal (AAB).

- Argentinians mash and cook leaves in water, poultice on breasts as lactagogue, over the ovaries for menstrual pain (JFM).
- Brazilians take leaf decoction as tonic, for fever and hemorrhoids (JFM).
- Costa Ricans give root decoction to children with diarrhea (JFM).
- Nicaraguan Garifuna chew the leaves and apply to abscesses and tumors (MPG).
- Nicaraguan Garifuna boil the leaves with corn stamen (maybe silk) for kidney problems (MPG).
- Venezuelans take decoction for gonorrhoea, and suppositories of the leaf infusion, with brown sugar, for intestinal problems (JFM).

### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed 10 titles alluding to toxicity of this species.

### Extracts:

Alkaloid fraction at 1 mg/ml active against *Bacillus*, *Cryptococcus*, *Escherichia*, *Klebsiella*, *Pseudomonas*, *Salmonella*, and *Staphylococcus* (MPG). LD = 25,000 orl rat (TRA). Ethyl acetate leaf extract shows potent cytotoxicity (LC50 = 5.41 ppm), comparable to gallic acid, and also exhibited mild antibacterial activity against Gram-positive and Gram-negative bacteria (X13680839).



**PARADISE TREE (*Simarouba glauca* DC.) +****SIMAROUBACEAE****Notes:**

Regarding the two species of *Simarouba*, *S. amara* (Marupa) and *S. glauca* (“dysentery bark” in CR2, but now standardized to “paradise tree”), Austin (2004) makes the following comments: “The Florida species, *S. glauca*, ranges through the Bahamas, Cuba, Jamaica, Hispaniola, and from Mexico to Panama. Conversely, *S. amara* grows from the Guianas up through Central America and is sympatric with *S. glauca* in southern Mexico. Sorting out identifications and common names for these two trees is not always done by taxonomists, foresters, or people working in the field. ... “Maybe it does not matter because both are used in essentially the same ways” (AUS). Taylor (2005) aggregated them in her book, so that data may apply to either species.

**Common Names:**

Aceite (Peru; RAR); Aceitillo (Pr.; AUS); Aceituno (Ca.; Mex.; Nic.; Pan.; Sal.; Sp.; AUS; MAX; PCS; USN); Aceituno Negrito (Nic.; PCS); Amargo (Ven.; AUS); Ash (Eng.; AVP); Bitter Ash (Dor.; Eng.; AHL; AUS); Bitter Damson (Eng.; Jam.; AUS; JFM); Bitterwood (Eng.; AVP; JFM; USN); Bois Amer (Dor.; Fr.; Haiti; AHL; AUS; JFM); Bois Blanc (Dor.; Fr.; Haiti; AHL; AUS; JFM); Bois Cayan (Fr.; JFM); Bois Frêne (Fr.; Haiti; AHL; AVP); Bois Nègresse (Haiti; AUS); Caixeta (Brazil; AVP); Caixeta Branca (Brazil; AVP); Chapascua-pul (Ma.; Mex.; AUS; JFM); Chiriguaná (Bol.; AVP; DLZ); Chiriguano (Fr.; JFM); Daguillo (Dor.; AVP); Dysentery Bark (Bel.; Eng.; AUS; CR2); Esche (Ger.; AVP); Evanta (Bol.; Mosen; DLZ); Frene (Fr.; JFM); Frêne (Fr.; Haiti; AHL; AVP); Frêne a Feuilles Aiguës (Fr.; AVP); Frêne Élevé (Fr.; AVP); Gaïac des Alemands (Fr.; AVP); Gall Tree (Bar.; AVP); Gavilán (Cuba; AVP; RAI; RyM); Gavinal (Sp.; JFM); Grand Frêne (Fr.; AHL); Gusano (Sp.; JFM); Jocote de Mico (Sp.; JFM); Juan Primero (Dor.; Sp.; AHL; JFM); Jucumico (Sal.; JFM; PCS); Lagartilla (Cr.; AUS); Laguilla (Dor.; AVP); Langue d'Oiseau (Fr.; AVP); Manteco (Cr.; Mex.; Sp.; AUS; JFM); Marouba (Gren.; AVP); Marubá (Brazil; AVP); Mountain Damson (Eng.; JFM); Negrito (Bel.; Hon.; Mex.; Sp.; AUS; JFM); Olivo (Cr.; Mex.; IED; MAX); Pac (Maya; AUS); Palo Amargo (Dor.; AHL); Palo Blanco (Cuba; AUS; PCS); Paque (Maya; AUS); Paradise Tree (Eng.; Scn.; AH2; AVP; JFM; USN); Pasa (Maya; Sp.; AUS; JFM); Pasa-Ak (Ma.; Maya; AUS; JFM); Pasac (Maya; AUS); Pasak (Ma.; Maya; AUS; JFM); Pasaque (Ma.; Maya; AUS; JFM); Pask (Maya; AUS); Pazaque (Maya; AUS); Pitomba (Brazil; AVP); Pujilté (Mex.; AUS; MAX); Qamalampi (Aym.; Bol.; DLZ); Quassia Amarga (Dor.; Sp.; AHL; AUS); Quinquina d'Europa (Fr.; Haiti; AHL; AUS; AVP); Rabo de Lagato Blanco (Ma.; JFM); Roblecillo (Ma.; JFM); Simarouba de la Guadeloupe (Guad.; AVP); Simaruba (Col.; Cuba; AVP; IED); X-Pac (Maya; AUS); Xpaxakil (Mex.; JFM; MAX); Zapatero (Sp.; JFM).

**Activities:**

Amebicide (f1; MAX; RAI; TRA); Analgesic (f1; AHL; AUS; RAI); Anticancer (1; X15852485); Antileukemic (f; AUS); Antimalarial (f1; IED; JFM; X9210673); AntiMDR (1; RAI); Antiseptic (1; AUS; RAI); Antitumor (1; RAI); Antiviral (1; RAI); Astringent (1; AAB); Bactericide (1; AUS; RAI; X2214824); Bronchoconstrictor (1; TRA); Choleric (f; DLZ); Cytotoxic (1; X15852485; X9210673); Diaphoretic (1; RAI); Diuretic (f; RAI); Emetic (f; AUS); Febrifuge (f1; MAX; RAI); Hemostat (1; RAI); Insecticide (1; TRA); Locusticide (1; TRA); Parasiticide (1; RAI); Pediculicide (1; TRA); Purgative (f; AUS); Stomachic (f; AUS; JFM; MAX); Sudorific (f; AHL; AUS); Tonic (1; RAI; TRA); Vermifuge (f1; AUS; RAI).

**Indications:**

Amenorrhea (f1; AHL; RAI); Anemia (f; AHL; RAI); Bacteria (1; AUS; RAI; X2214824); Biliousness (f; DLZ); Bleeding (f1; AUS; RAI); Cancer (1; X15852485); Colic (f; AHL; RAI);

Colitis (f; RAI); Dermatitis (f; TRA); Diarrhea (f1; AAB; AHL; JFM; RAI); Dysentery (f1; AAB; AHL; RAI); Dysmenorrhea (f; AUS; RAI); Dyspepsia (f; AHL; MAX; RAI); Enterosis (f; RAI); Fever (f1; JFM; MAX; RAI); Flu (1; RAI); Gastrosis (f1; AUS; RAI; TRA); Gonorrhoea (f; AHL); Hemorrhage (1; AAB); Hepatitis (f; DLZ); Herpes (1; RAI); Infection (1; AUS; RAI; X2214824); Itch (f; TRA); Leukemia (f1; AUS; RAI); Liver Spots (f; RAI); Malaria (f1; IED; JFM; RAI; TRA; X9210673); MDR (1; RAI); Metrorrhagia (1; AAB); Pain (f1; AHL; AUS; RAI); Parasites (1; RAI); Pediculosis (f1; TRA); Polio (1; RAI); Rashes (f; TRA); Rheumatism (f; AHL); *Salmonella* (1; RAI; TRA); Sarcoptosis (1; TRA); Scabies (1; TRA); *Shigella* (1; RAI; TRA); Sores (f1; AAB; AUS; RAI); Tumors (1; RAI); Ulcers (1; TRA); Vaccinia (1; RAI); VD (f; AHL; RAI); Viruses (1; RAI); West Nile (f; RAI); Whitener (1; RAI); Worms (f1; AUS; RAI); Wounds (f; RAI).

### Dosages:

FNFF = ! Though malodorous, the fruits are eaten; made into wine; seed oil used as cooking oil, made into margarine at one time in El Salvador (AUS; FAC; JFM). Mix 30 g powdered leaf with 65 ml coconut oil, will give enough for 10 days treatment (TRA).

- Altiplano Bolivians take bark decoction with orange peel for biliary and liver problems (DLZ).
- Amazonians take for bleeding, constipation, dysentery, fever, and malaria (RAI).
- Belizeans take for bleeding, bowel upsets, dermatosis, diarrhea, dysentery, dyspepsia, metrorrhagia, sores, and wounds (RAI), using a handful of bark in 3 cups water boiled 10 min as tea or bath (AAB).
- Bolivians take strong bark decoction for diarrhea (JFM).
- Costa Ricans take 15–60 drops alcoholic tincture (steeped 15 days) 3x/day for amebiasis (JFM; MAX).
- Costa Ricans take the bark infusion for malaria (JFM; PCS).
- Cubans take for bleeding, colitis, diarrhea, dysentery, dysmenorrhea, dyspepsia, malaria, parasites, sores, and wounds (RAI).
- Dominicans use for colic, diarrhea, and gonorrhoea, the bark tea for amenorrhoea and malaria (AHL; RAI).
- Guatemalans use for malaria (X9210673).
- Haitians use for dermatosis, dysmenorrhea, fever, pain, and rheumatism, the bitter bark tea for anemia, dysentery, and dyspepsia (AHL; RAI).
- Mexicans use for amebic infections, dyspepsia, fever, and malaria (RAI).
- Salvadorans take the fruit wine as stomachic (JFM).

### Downsides:

Excessive doses can cause diuresis, nausea, purgation sweating (AHL; RAI). As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

### Extracts:

Twig extract exhibited cytotoxic activity against several human cancer cell lines (X15852485). Methanol extracts reduced parasitemias in *Plasmodium berghei*-infected mice, and inhibited both chloroquine-susceptible and -resistant strains of *P. falciparum* (X9210673).

## JOJOBA (*Simmondsia chinensis* (Link) C. K. Schneid.) ++

### SIMMONDSIACEAE

### Illustrations:

p 428 (CR2)

**Synonyms:**

*Buxus chinensis* Link (basionym); *Simmondsia californica* Nutt.; fide (USN).

**Common Names:**

Goatnut (Eng.; USN); Jojoba (Eng.; CR2).

**Activities:**

Antiappetant (1; X16462820); Antifeedant (1; CRC); Antiinflammatory (1; X15629254); Anti-obesity (1; FNF; X16462820); Antioxidant (1; PH2); Cathartic (f; DEM); Cosmetic (1; PHR); Emetic (f; CRC); PGE2-Inhibitor (1; X15629254); Vulnerary (f; HH2).

**Indications:**

Acne (f; HH2); Alopecia (f; CRC; X9828867); Cancer (f; CRC); Childbirth (f; CRC); Colds (f; CRC); Dermatitis (f; PH2); Dysuria (f; CRC); Inflammation (1; X15629254); Nephrosis (f; CRC); Obesity (1; CRC; FNF; X16462820); Ophthalmia (f; CRC); Poison Ivy (f; CRC); Psoriasis (f; HH2); Sores (f; CRC; DEM); Sore Throat (f; CRC); Warts (f; CRC); Wounds (f; HH2).

**Dosages:**

FNFF = !! Seeds eaten raw or cooked, e.g., parched or roasted, or oiled and salted like peanuts. Ground seeds powdered into coffee-like beverages (resembling chocolate) with egg yolk, milk, sugar, and vanilla, or coffee. Oil from seeds popular in health foods (FAC). Topical application.

**Downsides:**

Not covered (AHP). None known at proper dose (PHR). Wax unsuitable for internal use (PH2). "No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages" (PH2). But they designate no dosage! (JAD). As of July 2007, the FDA Poisonous Plant Database listed eight titles alluding to toxicity of this species.

**Extracts:**

LD50 indeterminable = >21.5 ml/kg orl rat (HH2). Massage with EOs (cedarwood, lavender, rosemary, and thyme) was significantly more effective for *alopecia areata* than treatment with the carrier oil (grapeseed or jojoba) alone (X9828867). Simmondsin, a dietary supplement extracted from the seed, reduced food intake and body weight without notable negative effects (X16462820). Liquid seed wax reduced carrageenin-induced rat paw oedema and PGE2 levels (X15629254).

**FEVERTREE (*Siparuna guianensis* Aubl.) ++****MONIMIACEAE**

**Illustrations:**

fig 32 (GMJ)

**Notes:**

The buffy-headed marmoset (*Callithrix flaviceps*) may be the only predispersal herbivore of the seeds at the Caratinga Biological Station (s.e. Brazil). Both the fruit receptacles and the fruitlets (seeds) are relatively rich in nutrients such as carbohydrates, proteins, and lipids, but the receptacles contain high concentrations of benzylisoquinoline alkaloids. The latter presumably act as a qualitative chemical defense, impeding the access of potential predators to the alkaloid-poor fruitlets. On ripening, however, the receptacle splits open, exposing the fruitlets which enable the marmoset to avoid the plant's chemical defenses effectively. Taking care to avoid contact with the receptacle, the marmosets pluck out the fruitlets and ingest the seeds. This is the first record of the consumption of *S. guianensis* seeds by callitrichine monkeys (which are not known to be systematic seed eaters), despite the fact that both are widely distributed in the neotropics. It is thus possible that the behavioral strategy observed here is a unique phenomenon resulting from a specific combination of factors, including the abundance of *S. guianensis* within the study area (X11382070).

**Common Names:**

Arbol de la Fiebre (Ma.; JFM); Asna Huayo (Peru; Sp.; LOR); Caa Pitiu (Por.; GMJ); Capitiu (Por.; GMJ); Capitu (Ma.; JFM); Coerana (Ma.; JFM); Congonja (Ma.; JFM); Curuhuinci Sacha (Ma.; JFM); Curuinsi Sacha (Peru; RAR); Enemi (Wayãpi; GMJ); Erva Santa (Brazil; MPB); Fajapau (Ma.; JFM); Fedorento (Brazil; MPB); Hierba de Pasma (Pan.; IED); Hoja de Danta (Ma.; JFM); Ira Kopi (Ma.; JFM); Isula Caspi (Peru; SOU); Isula Huayo (Peru; Sp.; LOR); Isula Micuna (Peru; RAR); Jara Kopi (Ma.; JFM); Moeniridan (Ma.; JFM); Muniridan (Ma.; JFM); Negramina (Brazil; MPB); Picho Huayo (Peru; Sp.; LOR); Tebepau (Ma.; JFM); Urcugalabili (Cuna; IED); Venere (Creole; GMJ); Vinire (Creole; GMJ); Wainimi (Wayãpi; GMJ); Yariwapna (Palikur; GMJ).

**Activities:**

Abortifacient (f; GMJ); Analgesic (f; DAW); Anthelmintic (f; IED); Antiedemic (f; GMJ); Antiinflammatory (f; GMJ); Antispasmodic (f; GMJ; MPB); Aphrodisiac (f; DAV); Carminative (f; GMJ); Deodorant (f; DAV); Febrifuge (f; GMJ); Hypotensive (f; GMJ); Insecticide (f; DAW); Oxytocic (f; GMJ); Stimulant (f; DAW); Stomachic (f; DAV); Vulnerary (f; GMJ).

**Indications:**

Childbirth (f; JFM); Colds (f; DAW); Colic (f; DAW); Cramps (f; DAV; GMJ; MPB); Dermatitis (f; DAW); Dyspepsia (f; DAV); Edema (f; GMJ); Fever (f; EB29:292; GMJ); Flu (f; GMJ); Gas (f; GMJ; JFM); Headache (f; DAW); High Blood Pressure (f; GMJ); Impotence (f; DAV); Infection (f; DAV); Inflammation (f; GMJ); Mange (f; DAW); Myalgia (f; MPB); Mycosis (f; DAV); Pain (f; DAW); Pusanga (f; DAV); Rheumatism (f; DAW; IED); Snake Bite (f; DAW); Swelling (f; GMJ); Worms (f; IED); Wounds (f; GMJ).

**Dosages:**

FNFF = ? Leaf tincture believed antiedemic and vulnerary (GMJ)

- Brazilians use leaf decoction as carminative and stimulant (JFM).
- Coastal Colombians take leaf infusion for rheumatism (IED).
- Guyanese Creoles consider the leaf tea abortive and febrifuge (GMJ).
- Guyanese drink 3 cups leaf tea/day for high blood pressure (GMJ).
- Guyanese take decoction (alone or with lemongrass, lime leaf, pipe vine, and sweet sage) for cold and fever (JFM).
- Panamanians take the leaf decoction for colds, gas, and snake bite (IED).

- Surinamese use leaf decoction (branch 6 cm long:10 liter water) as sitz bath in child-birth (JFM).
- Wayãpi take decoction of leaves and stem bark as febrifuge in flu (GMJ).

## YACÓN (*Smallanthus sonchifolius* (Poepp. & Endl.) H. Rob.) ++

### ASTERACEAE

#### Illustrations:

p 321 (DLZ)

#### Synonyms:

*Polymnia edulis* Wedd.; *Polymnia sonchifolia* Poepp.; fide (POR; USN).

#### Common Names:

Arboloco (Col.; Peru; Sp.; EGG; POR); Aricoma (Aym.; Bol.; Peru; EB45:73; EGG; POR; USN); Aricona (Aym.; Peru; EGG; POR); Aricama (Aym.; Bol.; POR); Arikuma (Aym.; Bol.; DLZ); Chicama (Sp.; POR); Colla (Peru; Sp.; EGG; POR); Earth Apple (Eng.; POR); Ipio (Bol.; Chiriguano; DLZ); Jacón (Peru; Sp.; EGG; POR); Jícama (Peru; Sp.; EGG; POR); Jíkima (Peru; Sp.; EGG; POR); Jíquima (Col.; Ecu.; Peru; Sp.; Ven.; EGG; POR; USN); Jiquimilla (Col.; Peru; Sp.; Ven.; EGG; POR; USN); Llacjon (Peru; Que.; EGG; POR); Llacoma (Peru; Que.; EGG; POR); Llacon (Sp.; USN); Llacón (Bol.; Peru; Que.; POR); Llacum (Que.; POR); Llacuma (Peru; Que.; EGG; POR); Llakuma (Bol.; Peru; Que.; POR); Llamón (Peru; Que.; EGG; POR); Llaqon (Que.; POR); Poire de Terre (Fr.; POR; USN); Polaco (Peru; Sp.; EGG; POR); Puhe (Peru; Sp.; EGG; POR); Racón (Peru; EGG); Shicama (Sp.; POR); Taraca (Peru; Sp.; EGG; POR); Yaakon (Japan; POR); Yacón (Bol.; Peru; Sp.; POR; USN); Yacon Strawberry (Eng.; POR); Yacumpi (Que.; POR); Yacun (Bol.; Que.; DLZ).

#### Activities:

Analgesic (f; EGG); Antihyperglycemic (1; X16478259); Antiinflammatory (1; DLZ); Antilipoperoxidant (1; X15998117); Antioxidant (f; X15998117; X16478259); Antiradicular (f; X16478259); Antiseptic (1; X14586103); Bactericide (1; X14586103); Cytoprotective (f; X16478259); Diuretic (f; DLZ); Febrifuge (1; DLZ); Hypoglycemic (1; X11167030); Hypotriglyceridemic (1; X15979774); Immunomodulator (f; X16478259); Insulinogenic (1; X11167030); Prebiotic (f; X16478259).

#### Indications:

Arthritis (f; EGG); *Bacillus* (1; X14586103); Bacteria (1; X14586103); Cystosis (f; DLZ); Diabetes (f1; EGG; X11167030; X16478259); Dyspepsia (f1; X16478259); Fever (f1; DLZ); Gastrosis (f; X16478259); Hepatosis (f; DLZ); High Triglycerides (1; X15979774); Infection (1; X14586103); Inflammation (f1; DLZ); Myalgia (f; EGG); Nephrosis (f; X16478259); Oliguria (f; DLZ); Pain (f; EGG); Rheumatism (f; EGG); Syndrome X (f; X16478259).

#### Dosages:

FNFF = !! Cultivated in the Andes, and now the Czech Republic, Japan, and New Zealand, for its edible tubers, eaten raw, dried, boiled, or baked; leaves also consumed as potherb (EGG). Fruit edible (RAR).

- Bolivians suggest raw tubers as diuretic for bladder and kidney problems (DLZ).
- Bolivians take tuber decoction (or juice) for cystosis, hepatosis, and nephrosis (DLZ).
- Peruvians poultice hot leaves on myalgia and rheumatism (EGG).

**Extracts:**

Fed to rats for 4 months, dried yacon root flour as a supplement (340 mg and 6800 mg FOS/body weight) was well tolerated and did not produce any negative response, toxicity, or adverse nutritional effects at either dietary level used, and did not show significant hypocholesterolemic or hypoglycemic activity, yet significantly reduced triacylglycerols. Cecal hypertrophy was reported only in rats fed the high dose (X15979774). Drinking 2% yacon tea ad libitum instead of water for 30 days significantly lowered blood sugar in STZ-induced diabetic rats, and after 30 days of tea administration showed improved body (plasma glucose, plasma insulin levels, body weight) and renal parameters (kidney weight, kidney-to-body-weight ratio, creatinine clearance, urinary albumin excretion) in comparison with the diabetic controls (X11167030). Aqueous leaf extracts did not scavenge phenylglyoxylic ketyl radicals, but did inhibit formation, and inhibited t-butyl hydroperoxide-induced lipoperoxidation of microsomal and mitochondrial membranes (IC<sub>50</sub> = 22.15–465.3 µg/ml) (X15998117). Leaves contain two antibacterial sesquiterpene lactones, 8beta-methacryloyloxymelampolid-14-oic acid methyl ester, potent against *Bacillus subtilis* and *Pyricularia oryzae*, and 8beta-tigloyloxymelampolid-14-oic acid methyl ester which was less bactericidal; fluctuanin exhibited the strongest antibacterial activity against *B. subtilis* (X14586103).

**SARSAPARILLA (*Smilax aristolochiifolia* Mill) +++****SMILACACEAE****Synonyms:**

*Smilax medica* Schltld. & Cham.; *Smilax ornata* Lem.

**Notes:**

Peirce (1999) lists *Smilax officinalis* and related species, including *S. aristolochiifolia*, *S. febrifuga*, and *S. regelii*. The same were mentioned by Gruenwald et al. (2000), Madaus (1976), and Felter and Lloyd (1898); entries refer to *S. officinalis*. Entries below referenced as FEL and MAD might be assigned to that species by those who think they are smart enough to straighten out this taxonomic quagmire. Taylor (2005) apparently took a broad generic approach, including *S. aristolochiaefolia*, *S. febrifuga*, *S. glabra*, *S. japicanga*, *S. officinalis*, *S. ornata*, and *S. regelii* (RAI). USN entry based strictly on *S. aristolochiifolia*.

**Common Names:**

Gray Sarsaparilla (Eng.; Ocn.; AH2; USN); Mexican Sarsaparilla (Eng.; Ocn.; AH2; USN); Salsaparilha (Brazil; RAI); Sarsaparilla (Eng.; Scn.; AH2; USN); Veracruz Sarsaparilla (Eng.; Ocn.; AH2; USN); Zarzaparilla (Sp.; USN).

**Activities:**

Alterative (f; PED; PNC); Anabolic (1; APA); Antiinflammatory (1; APA; SKY); Antiitch (f; CAN; PNC); Antirheumatic (f; PED; PNC); Antiseptic (f; CAN; PNC); Aphrodisiac (f; APA; CRC); Bactericide (1; APA); Bitter (f; PED); Cardiosedative (f; MAD); Depurative (f; APA; CRC; PED; RAI; USN); Diaphoretic (f1; APA; CRC; KOM; PH2; USN); Digestive (f; PED); Diuretic (f1; APA; HH2; KOM; MAD; PH2; RAI); Emetic (f; FEL); Expectorant (1; APA); Febrifuge (f; PED); Fungicide (1; APA); Hepatoprotective (1; RAI; SKY); Immunomodulator (1; RAI); Laxative (1; APA); Memorogenic (f; RAI); Sudorific (f; CRC); Tonic (f; CRC; RAI; USN).

**Indications:**

Acne (f1; RAI); Alzheimer's (f; RAI); Anorexia (f; MAD; RAI); Arthritis (f1; APA; CRC; RAI; SKY); Asthma (f; MAD); Bacteria (1; APA); Burns (f; RAI); Caked Breast (f; MAD); Cancer (f1; APA; CRC; JLH; RAI); Cardiopathy (f; MAD); Colds (f; RAI); Colic (f; MAD); Coma (f;

MAD); Congestion (1; APA); Constipation (1; APA); Coughs (f; RAI); Cramps (f; MAD); Cystosis (f; MAD); Debility (f; RAI); Dementia (f; RAI); Dermatitis (f1; APA; CRC; KOM; PH2; RAI); Dyscrasia (f; MAD); Dysentery (f; PNC); Dyspepsia (f; APA; CRC; RAI); Eczema (f1; CRC; MAD; RAI; SKY); Enterosis (1; APA); Exanthem (f; MAD); Fever (f1; APA; CRC; PED); Fungus (1; APA); Furuncles (1; HH2); Gallstones (f; RAI); Gas (f; MAD); Gastrositis (1; APA); Gonorrhoea (f1; APA; CRC; FEL; RAI); Gout (f; MAD; RAI); Headache (f; MAD; RAI); Hematuria (f; MAD); Hepatitis (f1; FEL; MAD; RAI; SKY); Herpes (f; MAD); High Blood Pressure (f; RAI); IBS (1; PED); Impotence (f; APA; CRC; RAI); Infection (f1; APA; CAN; PNC; RAI); Inflammation (1; APA; PH2; SKY); Itch (f; CAN; PH2; PNC); Kidney Stones (f; RAI); Leprosy (f1; CAN; CRC; RAI); Leukorrhoea (f; MAD); Lupus (f; MAD); Memory (f; RAI); Nephrosis (f; CRC; KOM; MAD; PH2; RAI); Oliguria (f; RAI); Pain (f; RAI); Psoriasis (f12; APA; KOM; PH2; PNC; RAI; SKY); Pyelitis (f; MAD); Rashes (f; RAI); Rheumatism (f1; APA; CRC; MAD; PED; PH2; PNC; RAI; SKY); Roseola (f; MAD); Scabies (f; MAD); Scrofula (f; CRC; MAD); Sores (f; MAD); Sore Throat (f; FEL); Splenitis (f; MAD); Stones (f; RAI); Syphilis (f; APA; HH2; MAD; PNC; RAI; USN); Tuberculosis (f; MAD); Ulcers (f; MAD); Urethritis (f; PH2); UTIs (1; APA); VD (f; CRC; MAD; RAI); Water Retention (f; MAD); Wounds (f; CRC; USN).

### Dosages:

FNFF = !! Young shoots, leaves, and tendrils of some species pleasantly edible. I'd feel safe with 10–30 g dry root in 3 cups tea or sarsaparilla/day (JAD); 3 cups tea/day (PH2); 6 tsp (–20 g) in cold tea (MAD); 1–2 tsp powdered root/cup water, up to 3×/day (APA); 1–4 g powdered root (PNC); 3–6 g dry root (PED); 2–4 tbsp fresh root (PED); 0.3–1.5 g root (HH2; PH2); 1–4 g dry rhizome, or in tea, 3×/day (CAN); 8–15 ml liquid rhizome extract (1:1 in 10% glycerol, 20% alcohol) (CAN); 8–15 ml liquid root extract (PNC); 4.5 g dry root:22 ml alcohol:23 ml water (PED); 0.25–0.50 tsp tincture up to 3×/day (APA); 8–30 ml concentrated decoction (PNC); 2 (450 mg) capsules 2–3×/day (NH); 3 ml 3×/day (SKY).

- Argentinians use as antirheumatic, aphrodisiac, and diaphoretic (RAI).
- Brazilians use for acne, anorexia, arthritis, dermatitis, dyspepsia, eczema, fever, gallstones, gout, hives, impotence, kidney stones, leprosy, muscle weakness, nephrosis, oliguria, rheumatism, sores, sterility, and syphilis (RAI).
- Mexicans use for arthritis, burns, cancer, dermatitis, dyspepsia, eczema, fever, gonorrhoea, inflammation, leprosy, nephrosis, oliguria, rash, rheumatism, scrofula, and syphilis (RAI).

### Downsides:

Class 1 (AHP). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). Can cause nausea and kidney damage; avoid large doses for long periods (SKY). Overdosage could lead to “European cholera, shock, worsened diuresis, among other things” (PHR). Commission E reports for the root that gastric and renal toxicity as well as drug interactions are possible (with bismuth, digitalis, glycosides, and hypnotics) (KOM). Commission E reminds us of another problem: saponins can increase the availability of simultaneously administered drugs, while hastening the elimination of other drugs (e.g., hypnotics) (KOM). Blumenthal et al. (1998) editorially question the Commission E claim for gastric irritation due to saponin content. In view of the lack of toxicological data, excessive use should be avoided. “There are no known problems with the use of sarsaparilla during pregnancy and lactation ... Sarsaparilla saponins have been used in the partial synthesis of cortisone and other steroids” (CAN). As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

### Extracts:

Antiinflammatory and hepatoprotective in rats; digestive, diuretic, and orexigenic in humans, parillin antibiotic (PNC).

**NIPPLE PLANT (*Solanum mammosum* L.) ++****SOLANACEAE****Illustrations:**

fig 153 (MPG)

**Synonyms:***Solanum mammosissium* Ramrez; *S. platanifolium* Hook.; fide (POR).**Common Names:**

Amourette Batard (Guad.; Haiti; AHL); Apple of Sodom (Eng.; POR); Bachelor's Pear (Ma.; JFM); Berenjena (Mex.; AVP); Berenjena Cimarron (Ma.; JFM); Berenjena de Gallina (Dor.; Sp.; AHL; POR); Berenjena de Marimbo (Mex.; AVP); Berenjena de Teta (Dor.; Sp.; AHL; POR); Berenjena Peluda (Mex.; AVP); Berenjenita Peluda (Ma.; JFM); Beringela (Por.; AVP); Bichichi (Cr.; JAD); Breast Berry (Eng.; DAV); Calabacito (Dor.; AVP); Cantu (Ma.; JFM); Chicha (Ma.; JFM); Chichigua (Ma.; JFM); Chichihua (Ma.; JFM); Chichimora (Ma.; JFM); Chichita (Ma.; JFM); Chuchito (Mex.; AVP); Chufcha (Col.; SAR); Chuuch (Mex.; AVP); Cocoon (Sa.; SAR); Coconilla Dulce (Peru; RAR); Cucuma (Ecu.; SAR); Euter-Nachtschatten (Ger.; USN); Friega Plato (Col.; IED); Gañé Gadáru (Garifuna, IED). Guirito (Cuba; AVP); Jonge Meis-jes-Borst (Ma.; JFM); Jua Bravo (Brazil; MPB); Jurubeba do Para (Brazil; MPB); Kantu (Ma.; JFM); Kokonocho (Kofan; SAR); Love Apple (Eng.; FNF; POR); Mackaw Bush (Ma.; JFM; USN); Manzana del Diablo (Ma.; JFM); Marimba Amarilla (Ma.; JFM); Morelle à Fruit Ornamental (Fr.; POR); Morelle Mammiforme (Fr.; AVP); Morelle Molle (Fr.; Haiti; AHL; AVP; POR); Nipple Fruit (Eng.; POR; USN); Nipple Nightshade (Eng.; AVP); Njoenwentje Bobi (Ma.; JFM); Pechito (Ma.; JFM); Pechos de Doncella (Cuba; AVP); Peito de Moca (Brazil; Por.; AVP; MPB); Peito de Vaca (Brazil; MPB); Pichichinchivo (Cr.; MPG); Pichichio (Cr.; MPG); Pig's Ears (Eng.; USN); Pomme d'Amour (Haiti; AHL); Pomme Poison (Fr.; Guad.; AVP); Pomme Teton (Haiti; AVP); Pomme Zombi (Haiti; AHL); Prune Teton (Guad.; AVP); Pusanga de Gallina (Peru; MD2); Rejalgar (Col.; IED); Roconilla Dulce (Ma.; JFM); Sousumber (Ma.; JFM); Susumber (Pr.; AVP); Tapaculo (Col.; IED); Tentation Neg'sotte (Haiti; AHL); Terong Soesoe (Ma.; JFM); Terong Susu (Malaya; POR); Teta de Vaca (Ma.; JFM); Tete Jeune Fille (Haiti; AHL; AVP); Tetica (Col.; AVP); Tetilla (Pan.; Sp.; IED; POR); Tetin Jeune Fille (Haiti; AHL); Teton (Haiti; AHL); Tétons de Jeune Fille (Fr.; POR); Tinctona (Peru; Sp.; LOR); Tinta Uma (Peru; RAR); Tintola (Peru; MD2); Tintona (Peru; RAR); Tinya (Peru; RAR); Tit Fruit (Eng.; POR); Too Popo (Shipibo/Conibo; MD2); Turkey Berry (Eng.; Ma.; Wi.; JFM; POR); Unya de Gato (Ma.; JFM); Vaca Chucho (Peru; Sp.; LOR); Veneno (Ma.; JFM); Zitzen Nachtschatten (Ger.; POR). (Nscn).



**Activities:**

Antiplasmodial (1; X10687870); Aphrodisiac (f; MPB); Bitter (f; MPB); Diuretic (f; MPG); Febrifuge (f; MPG); Fungicide (1; MPG); Insecticide (f; DAV); Insectifuge (f; IED; JFM; SAR); Litholytic (f; MPG); Molluscicide (1; MPG; X7112609); Sedative (f; MPG); Sudorific (f; MPG); Toxic (f; AHL; RAR); Tranquilizer (f; SAR).

**Indications:**

Arthrosis (f; DAV); Asthma (f; DAV; JFM); Bites (f; JFM); Burns (f; AHL); Cardiopathy (f; AHL); Colds (f; JFM); Colic (f; AHL); Cystosis (f; DAV); Dermatitis (f1; JFM; MPG); Elephantiasis (f; JFM); Epidermatophyton (1; MPG); Fever (f; MPG); Fungus (1; MD2; MPG); Hemorrhoids (f; AHL); Hepatosis (f; MPG); Impotence (f; MPB); Infection (1; MPG); Inflammation (f; JFM); Insomnia (f; MPG; SAR); *Leishmania* (f; DAV; MD2); Malaria (1; X10687870); Mycosis (f1; MD2; MPG); Nephrosis (f; AHL); Pain (f; IED); Pertussis (f; JFM); Psoriasis (f; MPB); Pulmonosis (f; IED); Respirosis (f; IED); Rheumatism (f; DAV); Ringworm (f; MD2); Scabies (f; X10687870); Schistosoma (1; MPG); Scrofula (f; JFM); Sinusitis (f; MPG); Sores (f; AHL); Stones (f; MPG); Syphilis (f; JFM); VD (f; JFM); Wounds (f; JFM).

**Dosages:**

FNFF = X.

- Cubans boil 2 fruits/cup water for asthma or colds (JFM).
- Hondurans and Salvadorans use the seeds for cold remedies (JFM).
- Kofan use the fruits somehow as a “pacifier for small children” (I’d not recommend it orally).
- Latinos take flower tea (1 tsp every 2 hr) for pertussis (JFM).
- Madre de Dios Peruvians apply mashed fruit pulp to fungus, leishmanial sores, and ringworm (MD2).
- Nicaraguan Garifuna use fruit, leaf, and seeds for dermatosis, pain, and respiratory ails (EB50:71).
- Panamanians and Peruvians spread pulp and seeds around huts as cockroach repellent (IED; SAR).
- Surinamese mash fruit pulp with garlic or tobacco and spread on feet to repel sandfleas (JFM).

**Downsides:**

Danger; do not eat; poisonous (MD2). As of July 2007, the FDA Poisonous Plant Database listed nine titles alluding to toxicity of this species.

**Extracts:**

Fruit extracts moderately antiplasmodial (X10687870). The steroidal glycoalkaloids solasoline and solamargine, and glycosidic alkaloid tomatine molluscicidal for *Lymnaea cubensis* and *Biomphalaria glabratus* (10 and 25 ppm, respectively) (X7112609).

**CUPA SACHA (*Solanum obliquum* Ruiz & Pav.) ++****SOLANACEAE****Synonyms:**

*Cyphomandra obliqua* (Ruiz & Pav.) Sendtn.

**Common Names:**

Aspa Panga (Peru; Sp.; MDD); Cupa Sacha (Peru; Sp.; LOR); Poshno Rao (Peru; Sp.; LOR).

**Activities:**

Febrifuge (f; DAV); Resolvent (f; DAV).

**Indications:**

Ecchymosis (f; DAV); Fever (f; DAV).

**Dosages:**

FNFF = ?

**COCONA (*Solanum sessiliflorum* Dunal) ++****SOLANACEAE****Illustrations:**

p 181 (MD2)

**Synonyms:**

*Solanum topiro* Dunal; fide (USN).

**Common Names:**

'Akui'bedn (Amarakaeri; MD2); Betaika (Kubeo; SAR); Cocona (Eng.; Peru; Sp.; LOR; USN); Cubiu (Por.; USN); Cubiyui (Nheengatu; SAR); Daboca (Waorani; SAR); Datwa (Tatuyo; SAR); Detwa (Taiwano; SAR); Etoa (Tukano; SAR); Lulo (Col.; SAR); Lulo Grande (Col.; SAR); Mareda (Kuripako; Tukano; SAR); Orinoco Apple (Eng.; USN); Peach-Tomato (Eng.; USN); Popo (Piro; Yine; MD2); Popó (Amahuaca; Shipibo/Conibo; MD2); Popoi (Ese'ēja; MD2); Tapiru (Yukuna; SAR); Tomate Chauve Souris (Fr.; USN); Topiro (Col.; Sp.; SAR; USN); Topiro Cocona (Col.; SAR); Wakui'bedn (Huachipaeri; MD2).

**Activities:**

Abortifacient (f; SAR) Antiemetic (f; SAR); Diuretic (f; SAR); Vermifuge (f; SAR).

**Indications:**

Bites (f; SAR); Burns (f; JAD); Childbirth (f; MD2); Colds (f; SAR); Dandruff (f; SAR); Flu (f; SAR); Glossosis (f; SAR); Headache (f; SAR); Mucososis (f; SAR); Nausea (f; SAR); Necrosis (f; SAR); Stomatosis (f; SAR); Worms (f; SAR).

**Dosages:**

FNFF = !! The readily available fruits are a rich and cheap source of a delicious and reportedly diuretic beverage, rich in vitamin C (JAD). My Peruvian friend Antonio Montero has many times demonstrated the power of the leaf juice (which probably contains solasodine) to alleviate burns and prevent scarring (JAD).

- La Pedrerans apply leaves heated in water to forehead for headache (SAR).
- Madre de Dios Peruvians suggest cocona beverage for children who eat dirt, women after childbirth, and elderly and recuperating patients (MD2).
- Taiwano add powdered seed to coca powder when oral mucous membranes are irritated (SAR).
- Tikuna take grated fruit with 2 aspirins and water (SAR).
- Tukano take strong leaf decoction as vermifuge (SAR).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**WILD EGGPLANT (*Solanum torvum* Sw.) ++****SOLANACEAE****Synonyms:**

*Solanum ferrugineum* Jacq.; *S. ficifolium* Ortega; *S. largiflorum* C. White; *S. mayanum* Lund.; *S. straminifolium* Jacq.; fide (POR; USN).

**Common Names:**

Ban Bihi (Nepal; NPM); Barabihi (Nepal; KAB); Batard Belongenne (Ma.; JFM); Bélangère Bâtard (Guad.; St. Bart.; AVP); Bengar Betahet (Bihar; WOI); Berengena (Cr.; AVP; JFM); Berengena Cimarrona (Cr.; Dor.; Pr.; AHL; AVP; JFM); Berengena de Gallina (Dor.; AHL; AVP; JFM); Berengena Silvestre (Cr.; AVP; JFM); Bhit-Tita (Assam; WOI); Bhurat (Delhi; WOI); Bihi (Danuwar; Nepal; NPM); Bovasonde (Kan.; KAB); Ch'el-Ik (Maya; JFM; MAX); Chundaikai (Tel.; WOI); Chunta (Mal.; KAB); Chusai (Chepang; NPM); Conoca (Ma.; JFM); Coquino (Ma.; JFM); Dieng Soh (Khasi; WOI); Espina (Ma.; JFM); Friega Platos (Ma.; JFM); Gota Begun (Ben.; SKJ); Guaragua (Ma.; JFM); Guaraguao (Ma.; JFM); Gully Bean (Ma.; JFM); Hanjeddarud (Mun.; KAB); Hathibhekuri (Assam; KAB; SKJ; WOI); Hengi (Satar; NPM); Huevo de Gato (Ma.; JFM); Huiz (Ma.; JFM); Kadubadam (Kan.; KAB); Kadusonde (Kan.; KAB); Kadusunde (Kan.; WOI); Kamsar Kambar (Chepang; NPM); Kattuchunta (Mal.; KAB; SKJ; WOI); Katukallante (Tulu; KAB); Kayangyin (Burma; KAB); Khem Khatai Baphangl (Cachar; WOI); Kondauste (India; SKJ); Kondavuste (Tel.; KAB); Kottukkattari (Tam.; KAB); Kottuvastu (Tel.; WOI); Kutunbi (Bihar; WOI); Lava Platos (Ma.; JFM); Malaichundai (Tam.; KAB); Marang (Bihar; WOI); Maranganjed (Mun.; KAB); Mirámira Furúda (Garifuna; IED); Nightshade (Bel.; BNA); Nonag (Khasi; WOI); Pach'l (Bel.; Maya; BNA); Pajch (Ma.; JFM); Pa'l (Bel.; Maya; BNA); Pea Eggplant (Eng.; FAC); Penderjera (Cuba; JFM; RyM); Plate Brush (Eng.; FAC); Pokak (Java; FAC; TAN); Prenderera (Ma.; JFM); Prenderora (Mex.; JFM; MAX); Prickly Berry (Ma.; JFM); Ranbaingan (Delhi; WOI); Rangaini Tangaiji (Bihar; WOI); Seti Bihi (Nepal; NPM); Shoo-Shoo Bush (Ma.; JFM); Shushumber (Ma.; JFM); Sondaegida (Kan.; WOI); Sonde (Kan.; KAB); Souschumber (Ma.; JFM); Sousumba (Ma.; JFM); Sundai (Tam.; KAB; SKJ); Sundaikai (Tam.; WOI); Sundakkayi (Kan.; WOI); Susamba (Bel.; BNA); Susumba (Bel.; Creole; Haiti; BNA; VOD); Susumber (Eng.; Ma.; FAC; JFM); Suzume Nasubi (Japan; TAN);

Tabacón (Dor.; AHL; JFM); Tall Red Trubba (Ma.; JFM); Thulo Bihi (Nepal; NPM); Titbaigum (Ben.; KAB); Tomatillo (Ma.; JFM); Tompaap (Maya; JFM; MAX); Trompito (Ma.; JFM); Trong Mangas (Malaya; KAB); Trong Mangon (Malaya; KAB); Trong Pipet (Malaya; KAB); Trong Rajah Wang (Malaya; KAB); Trong Rumbang (Malaya; KAB); Turkey Berry (Ma.; JFM); Ustekaya (Tel.; WOI); Wild Eggplant (Eng.; VOD); Zamoret (Creole; Haiti; VOD); Zamorette (Haiti; AVP; JFM); Z'amorette (Haiti; AHL). (Nscn; American entries diacritically prepared).

### Activities:

Antidote (f; SKJ); Antiherpetic (1; X11830167); Antiseptic (1; X14693223); Antispasmodic (f; MAX; VOD); Antiviral (1; X11830167); Bactericide (1; X10727817; X14693223); Carcinogenic (1; X8772809); Curare (f; HDN; VOD); Digestive (f; SKJ; WOI); Diuretic (f; MAX; SKJ); Febrifuge (f; SKJ; VOD); Fungicide (1; X14693223); Heamangiogenic (1; X8772809); Hemostat (f; IED; SKJ; WOI); Hypercalcaemic (1; X523823); Narcotic (f; MAX); Hyperphosphataemic (1; X523823); Sedative (f; SKJ; VOD); Sudorific (f; MAX); Tonic (f; SKJ); Vulnerary (f; VOD).

### Indications:

Acne (f; JFM); Arthrosis (f; AHL; JFM); Asthma (f; MAX; NPM); Bacteria (1; X10727817; X14693223); Bleeding (f; IED; SKJ); Burns (f; IED); Catarrh (f; JFM); Colds (f; JFM); Conjunctivitis (f; NPM); Convulsions (f; MAX); Coughs (f; MAX; SKJ; WOI); Cystitis (f; AHL; JFM); Debility (f; NPM); Dermatitis (f; IED; MAX); Dropsy (f; NPM); Dysuria (f; VOD); Enteritis (f; VOD); Fever (f; NPM; SKJ; VOD); Gastroitis (f; VOD); Gonorrhoea (f; NPM; VOD); Gout (f; JFM; MAX); Headache (f; NPM); Hepatitis (f; WOI); Herpes (1; X11830167); Infection (1; X10727817; X14693223); Insomnia (f; SKJ; VOD); Nausea (f; NPM); Ophthalmia (f; JFM; NPM); Pain (f; JFM; VOD); Rashes (f; IED); Respiritis (f; NPM); Rheumatism (f; MAX; NPM); Snake Bite (f; SKJ); Sores (f; IED); Spasms (f; MAX; VOD); Splenitis (f; KAB; SKJ; WOI); Stomachache (f; VOD); Syphilis (f; MAX); Toothache (f; SKJ); Urethritis (f; JFM); VD (f; MAX; VOD); Viruses (1; X11830167); Worms (f; JFM); Wounds (f; IED; VOD).

### Dosages:

FNFF = !! Young shoots eaten raw or cooked (FAC). Asians eat half-ripe fruits, raw or cooked, in stews, sauces, e.g., Thailand's "nám prik," etc. West Indians boil the half-ripe fruits with akee, fish, soup, stew, or yams (FAC). Unripe fruits pickled; fruits and leaves used to make "marcha," a fermenting cake for distilled beverages (NPM).

- Cubans apply the leaf juice to pimples (JFM).
- Cubans drink root decoction 2–3×/day for cystitis and urethritis (JFM).
- Dominicans use young leaf infusion with *Bidens* shoots for dysuria, the flower infusion for infantile enteritis (VOD).
- Dominicans use root infusion for gonorrhoea (VOD).
- Garifuna poultice leaf and root decoction to bleeding, burns, rashes, sores, and wounds (IED).
- Haitians massage crushed leaves and seed to correct fever (VOD).
- Haitians use leaf decoction as sedative and antispasmodic for gastralgia (VOD).
- Jamaicans drink leaf decoction for colds (JFM).
- Nepalese drop flower juice with salt water into eyes (NPM).
- Nepalese poultice ripe fruits onto the forehead for headache (NPM).
- Nepalese use plant juice for asthma, chest, cough, dropsy, gonorrhoea, and rheumatism (NPM).
- Nepalese use root juice for vomiting due to weakness (NPM).
- Yucatanese regard leaf decoction as diuretic, narcotic, resolutive, and sudorific (JFM).

**Downsides:**

Reportedly may cause enzootic calcinosis in cattle; rats given dried powdered leaves as part of their diet show signs of induced hypercalcaemia and hyperphosphataemia, with soft tissue calcification more evident in the kidney and lung (X523823). Potential carcinogenic effects shown in Swiss mice, given 100 mg/animal/day for 12 months for up to 2 years produced hepatic haemangiomas in 30% (X8772809). As of July 2007, the FDA Poisonous Plant Database listed 13 titles alluding to toxicity of this species.

**Extracts:**

Methanolic fruit extracts yielded the compounds torvanol A and torvoside H which show antiviral activity against herpes simplex type 1 (IC<sub>50</sub> = 9.6 and 23.2 µg/ml, respectively) (X11830167), and display a wide spectrum of antimicrobial activity (X10727817). After one month of taking Sundakai powder supplementation (7 g providing 1.23 g of crude fibre), 30 non-insulin dependent diabetes mellitus patients (all on hypoglycemic medication) showed no significant change in their glucose, lipid profile, glycosylated proteins, total amino acids, or uronic acid levels (X1315434).

**POTATO (*Solanum tuberosum* L.) +****SOLANACEAE****Synonyms:**

*Lycopersicon tuberosum* (L.) Mill.; *Solanum aracascha* Bess.; *S. chocclo* Bukasov & Lechn; *S. esculentum* Neck.; *S. leptostigma* Juz. ex Bukasov; *S. sinense* Blanco; fide (POR).

**Common Names:**

Aalu (Ben.; India; Nepal; POR); Aardapfel (Ger.; POR); Aardappel (Dutch; Ger.; Swiss; AVP; EFS; POR); Accsu (Peru; Que.; RAR); Acshu (Peru; EGG); Aloo (Hindi; POR); Alu (India; POR); Amco (Aym.; JLH); Amka (Aym.; Bol.; DLZ); Apalu (Peru; EGG); Apharu (Aym.; Peru; EGG); Ärdäppel (Ger.; POR); Ardoffel (Swiss; POR); Batata (Por.; EFS); Batata Americana (Por.; AVP); Batata da Terra (Por.; AVP); Batata-da-Terra-Semelha (Por.; POR); Batata di Norte (Ma.; JFM); Batata do Reino (Por.; AVP); Batata Inglêsa (Por.; AVP); Batateira (Por.; EFS); Batates (Arab.; POR); Batatinha (Por.; AVP); Brambor (Czech; POR); Bramboru (Serbia; Slovakia; POR); Bramburi (Ger.; POR); Burgonya (Hun.; POR); Catzari (Ashaninka; Campa; Peru; EGG); Catzari Tseri (Campa; Peru; RAR); Caxlan (Maya; JFM); Cây Khoai Tâý (Vn.; POR); Cchoke (Aym.; Peru; EGG); Cchoque (Aym.; Peru; EGG); Chaucha (Peru; RAR); Ch'oqe (Aym.; Bol.; DLZ); Chuno (Sp.; JLH); Chure (Bol.; Chiriguano; DLZ); Curao Kara (Peru; EGG); Erdapfel (Aus.; POR); Erdbirne (Ger.; POR); Erpele (Ger.; POR); Frundbirne (Ger.; POR); Grumbir (Eng.; JLH); Grundbirn (Ger.; POR); Guata (Col.; IED); Gummel (Ger.; Swiss; POR); Happere (Swiss; POR); Hardopfel (Swiss; POR); Harpfel (Swiss; POR); Herdapfel (Ger.; POR); Inkatrüffel (Ger.; POR); Irish Potato (Eng.; JLH); Jaga Imo (Japan; POR); Jordpoeron (Swe.; AVP; POR); Kartoffel (Ger.; Pol.; JLH; POR); Kartoffel (Den.; Ger.; EFS; JLH; POR); Kartoffler (Den.; POR); Kartoshka (Rus.; POR); Kartoška (Rus.; POR); Kautüffel (Ger.; POR); Kesia (Peru; Uru.; EGG; RAR); Ketüffel (Ger.; POR); Khoai Tâý (Vn.; POR); Krompira (Serbia; POR); Krompirja (Slovenia; POR); Krumbiir (Ger.; POR); Krumbirn (Ger.; POR); Krumpir (Croatia; POR); Maaona (Matsigenka; Peru; RAR); Mábi (Garifuna; Nic.; EB50:71); Mailinterra (Swiss; POR); Ma Ling Shu (China; Taiwan; POR); Mergikulalu (Cuna; IED); Mojaqui (Campa; Peru; EGG; RAR); Morelle Tubéreuse (Haiti; AVP); Mosaki (Ashaninka; Campa; Peru; EGG); Mosaqui (Campa; Peru; RAR); Moy Papa (Peru; EGG); Papa (Cuba; Dor.; Que.; Sp.; DLZ; IED); Papa Blanca (Peru; EGG); Papa de Gentil (Peru; SOU); Paps (Ma.; JFM); Parmentière (Fr.; AVP); Patata (Bol.; Col.; It.; Spain; DLZ; IED; JTR); Patata de la Mancha (Sp.; AVP);

Patate (It.; AVP); Patate de la Manche (Fr.; AVP); Patate des Jardins (Fr.; AVP); Patate de Virginie (Fr.; AVP); Patates (Tur.; EFS); Peruna (Fin.; POR); Pom da Terra (Swiss; POR); Pomi di Terra (It.; POR); Pomme de Tè (Haiti; AVP); Pomme de Terre (Fr.; Haiti; AVP; JLH); Pomme Tè (Haiti; AVP); Pomo di Terra (It.; EFS); Potaati (Fin.; POR); Potät (Swe.; POR); Potatis (Swe.; EFS); Potato (Eng.; Scn.; AH2; CR2; USN); Prome Tè (Haiti; AVP); Pua (Peru; EGG); Q'esa (Chipaya; DLZ); Q'esalla (Chipaya; DLZ); Quinqui (Aguaruna; EGG); Seb Zamini (Iran; EFS); Taffah el Ardh (Arab.; AVP); Tartuffel (Swe.; Swiss; POR); Tartuffli (Ger.; POR); Tartufo (It.; POR); Tiffel (Swiss; POR); Trufelle (Fr.; AVP); Truffe (Fr.; AVP); Truffel (Swiss; POR); Tseri (Ashaninka; Campa; Peru; EGG; SOU); Tu Dou (China; POR); T'u Luan (China; EFS); Turma (Col.; IED); T'u Yā (China; EFS); Ubi Kentang (Malaya; EFS); White Potato (Eng.; JLH); Yang Shu (China; EFS); Yang Yu (China; POR); Yer Elmassy (Tur.; AVP); Ziemne Jab'ko (Pol.; AVP); Ziemniak (Pol.; POR).

### Activities:

Alterative (f; CRC); Analgesic (f1; JTR; TRA); Antiinflammatory (f; EGG); Antiseptic (1; CRC); Antispasmodic (f1; CRC; EGG; TRA); Antiulcer (f; EGG); Bactericide (1; CRC); Cardiotonic (1; CRC; TRA); Collyrium (f; DLZ); Diuretic (f; CRC); Emetic (f; CRC); Emollient (f; JTR); Fungicide (1; TRA); Hemostat (f; EGG); Hypoglycemic (1; TRA); Hypotensive (1; CRC; TRA); Lactagogue (f; CRC); Myotropic (1; CRC); Narcotic (f; CRC; JTR); Orexigenic (f; CRC); Pectoral (f; JFM; JTR).

### Indications:

Anorexia (f; CRC); Arthrosis (f; JFM); Bacteria (1; CRC); Bleeding (f; EGG); Bronchosis (f; JFM); Burns (f; CRC; JFM); Calculus (f; EGG); Callus (f; CRC; JLH); Cancer (f1; JLH; X15137822); Cancer, breast (f; JLH); Cancer, rectum (f; JLH); Cancer, throat (f; JLH); Carcinoma (1; X15137822); Conjunctivosis (f; DEM; JFM); Corns (f; CRC); Coughs (f; CRC); Cramps (f1; CRC; EGG; JFM; JTR; TRA); Cystosis (f; CRC; JFM; JTR); Delirium (f; CRC); Dermatoses (f; DLZ; JFM); Diabetes (1; TRA); Dysuria (f; JFM); Erysipelas (f; DLZ); Fistula (f; CRC); Frostbite (f; CRC); Fungus (1; TRA); Gastrosis (f; EGG); Headache (f; TRA); Hemorrhoids (f; JFM; JTR); Hepatosis (f; DLZ); High Blood Pressure (1; CRC; TRA); Infection (1; CRC); Inflammation (f; EGG); Itch (f1; DLZ; TRA); Kidney Stones (f; EGG); Mastosis (f; JFM); Mycosis (1; TRA); Nephrosis (f; EGG); Neuralgia (1; TRA); Ophthalmia (f; DEM; DLZ; JFM); Pain (f1; JTR; TRA); Prostate (f; CRC; JFM); Pulmonosis (f; JFM); Rheumatism (f; DLZ; JFM); *Staphylococcus* (1; X10857921); Stings (f; EGG); Tumors (f; CRC; JLH); Ulcers (f; EGG); Warts (f; CRC; DEM).

### Dosages:

FNFF = !!! Tubers widely consumed, almost always cooked.

- Bermudans hold wrapped potato flesh against inflamed eyes (JFM).
- Bolivians apply mashed potatoes on burns, dermatoses, erysipelas, and itch (DLZ).
- Bolivians consider peel decoction as diuretic, used for hepatoses and rheumatism (DLZ).
- Bolivians use fresh juice from stems as collyrium (DLZ).
- Peruvians apply slice potato to bug bites, burns, and stings (EGG).
- Peruvians drink decoction (in which potatoes were cooked) for renal calculus (EGG).
- Peruvians take potato juice for gastric ulcers (EGG).
- Venezuelans take the peels in decoction for urinary problems (JFM).
- Yucatanese take sweetened leaf decoction for arthritis and bronchitis, taking a 3-potato decoction for cystitis and prostatitis (JFM).

### Downsides:

Not covered (AHP). "Fruits" and green-skinned potatoes can be toxic, sometimes fatally so (CRC). As of July 2007, the FDA Poisonous Plant Database listed 284 titles alluding to toxicity of this species.

**Extracts:**

Solanine analgesic and antineuralgic, controls itch at oral doses of 50–200 mg (TRA). Lee et al. (2004) studied the potato trisaccharide glycoalkaloids alpha-chaconine and alpha-solanine, the disaccharides beta(1)-chaconine, beta(2)-chaconine, and beta(2)-solanine, the monosaccharide gamma-chaconine and their common aglycon solanidine, the tetrasaccharide potato glycoalkaloid dehydrocommersonine, the potato aglycon demissidine, the tetrasaccharide tomato glycoalkaloid alpha-tomatine, the trisaccharide beta(1)-tomatine, the disaccharide gamma-tomatine, the monosaccharide delta-tomatine, and their common aglycon tomatidine, the eggplant glycoalkaloids solamargine and solasonine and their common aglycon solasodine, and the nonsteroidal alkaloid jervine. All were active, with the glycoalkaloids being most active and hydrolysis products less so. Effectiveness was greater against liver cells than colon cells. Potencies of alpha-tomatine and alpha-chaconine at 1 µg/ml against liver carcinoma were higher than those of the anticancer drugs doxorubicin and camptothecin. Safety consideration should be given in use since alpha-chaconine, alpha-solanine, and alpha-tomatine also inhibited normal human liver HeLa (Chang) cells (X15137822).

**SOW THISTLE (*Sonchus oleraceus* L.) ++****ASTERACEAE****Illustrations:**

pl 561 (KAB)

**Common Names:**

Achcaña (Peru; EGG); Achicoria (Peru; Pr.; AVP; RAR); Annual Sow Thistle (Eng.; USN); Borra (Peru; RAR); Cana (Peru; EGG); Canacho (Peru; EGG; RAR); Canapaco (Bol.; MPG); Canayuya (Peru; EGG); Cardimuelle (Sp.; EFS); Cardo Lechero (Sp.; EFS); Cardon (Peru; Sp.; Ven.; EFS); Casha Macho (Peru; RAR); Ccashacnaña (Peru; MPG); Ccjana (Peru; MPG; ROE); Cerraja (Cuba; Ecu.; Sp.; Spain; AVP; BEJ; EFS; USN; VAD); Cerraja Blanca (Sp.; MPG); Cerraja Oficinal (Sp.; MPG); Cerrajilla (Ma.; JFM); Cerrala (Peru; MPG); Cheveux de Paysan (Fwi.; AVP); Chicalote (Bel.; BNA); Chicorée Amère (Fwi.; AVP); Chicorée Commune (Fwi.; AVP); Chicorée Marron (Haiti; AVP); Chicorée Sauvage (Haiti; AVP); Chicoria (Dor.; AHL); Chicória Amarga (Por.; AVP); Chicória-Brava (Brail; USN); Chote Jhar (Nepal; NPM); Cicerbita (It.; EFS); Cicória Selvatica (It.; AVP); Citu Sacha (Peru; RAR); Common Sow Thistle (Aust.; Eng.; USN); Crespigno (It.; EFS); Dodak (India; EFS); Dowthistle (Eng.; AVP); Dudhi Kanda (Nepal; NPM); Ecoubette (Fwi.; AVP); Ecoubette Bleue (Fwi.; AVP); Esek Marulu (Turk.; EFS); Eskaña (Peru; EGG; ROE); Gaña (Peru; RAR); Gemeine Gansedistel (Ger.; EFS); Gnete (Tibet; NPM); Hare's Lettuce (Eng.; JFM; USN); Hare's Thistle (Eng.; EFS); Hawwwa (Arab.; GH); Janachu (Peru; RAR); Kanapato (Peru; MPG); Khaña (Aym.; Bol.; MPG); Khanachu (Peru; EGG); Khanapaqui (Peru; EGG); Khuwaysg (Arab.; GH); K'u Ts'ai (China; EFS); Laiteron (Fr.; UPW); Laiteron Commun (Fr.; EFS); Laitron (Fwi.; AVP); Laitron de Culture (Fwi.; Guad.; AVP); Laitue de Lievre (Fr.; EFS); Laitue Sauvage (Haiti; AVP); Lechecillo (Sp.; MPG); Lechuga (Ma.; JFM); Lechuga Montes (Ma.; JFM); Lechuovillo (Sp.; MPG); Llampu Ccjana (Peru; MPG); Melkdistel (Dutch; EFS); Mhatarata (Bom.; NAD); Ngésu (Sen.; UPW); Ñilhue (Ma.; JFM); Odaid (Arab.; GH); Odeid (Arab.; GH); Qh'ana (Aym.; Bol.; Peru; MPG; ROE); Qhanapago (Bol.; MPG); Qhanapak (Aym.; Bol.; MPG); Qhana Yuyo (Bol.; Que.; MPG); Qharrasa (Bol.; Que.; MPG); Ratrinta (Tel.; NAD); Saudistel (Ger.; EFS); Serraja (Ma.; JFM); Serrajilla (Ma.; JFM); Serralha (Por.; AVP; EFS); Serralha Brava (Por.; AVP); Serralha-Lisa (Brazil; USN); Serralha Macia (Por.; EFS); Snow Thistle (Eng.; EFS); Sow Thistle (Eng.; Nz.; NPM; USN); Tadmernit (Arab.; Mauritania; UPW); Titalaya (Patna; NAD); T'u (China; EFS); Wegwarte (Ger.; AVP).

**Activities:**

Abortifacient (f; UPW); Analgesic (f; MPG); Antibilious (f; JFM); Antiinflammatory (f; FAH; MPG); Antioxidant (1; X14630594; X15800389); Antiradicular (1; X14630594); Antisarcotic (1; MPG; WOI); Antiseptic (f; MPG); Antispasmodic (f; EGG; JFM; MPG); Antitumor (1; MPG; WOI); Antiulcer (f; MPG); Aperitive (f; JFM); Carminative (f; EGG; JFM; MPG); Cathartic (f; KAB; WBB); Cholagogue (f; MPG); CNS-Sedative (f; MPG); Collyrium (f; WBB); Depurative (f; JFM; MPG); Digestive (f; FAH); Diuretic (f; GHA); Emmenagogue (f; DEM; FAH); Emollient (f; AHL; ROE); Febrifuge (f; DEP; KAB); Fungicide (f; EGG); Hepatotonic (f; FAH; MPG); Hydragogue (f; NAD); Lactagogue (f; JFM; NAD; ROE; WOI); Laxative (f; GHA; JFM); Litholytic (f; FAH); Narcotic (f; WOI); Neurotonic (f; JFM); Orexigenic (f; JFM); Purgative (f; ROE); Refrigerant (f; JFM); Sedative (f; KAB); Stomachic (f; EGG; JFM; MPG); Tonic (f; GHA; KAB); Vermifuge (f; FAH; WBB).

**Indications:**

Abscesses (f; ROE); Addiction (opium) (f; DEM; FAH; UPW; WOI); Amenorrhea (f; DEM; FAH); Anorexia (f; JFM); Ascites (f; NAD; WOI); Biliousness (f; MPG); Calculus (f; ROE); Cardiopathy (f; JFM; ROE); Childbirth (f; ROE); Cholera (f; ROE); Colds (f; VAD); Colic (f; MPG; ROE); Constipation (f; DEM; JFM); Cramps (f; JFM; MPG); Cystosis (f; VAD); Dentition (f; DEM; FAH); Dermatoses (f; MPG; VAD); Diarrhea (f; FAH; JFM); Duodenitis (f; KAB); Dysentery (f; JFM); Dyskinesia (f; VAD); Dyslactea (f; JFM); Dysmenorrhea (f; DEM; FAH; MPG); Dyspepsia (f; MPG); Dysuria (f; MPG; ROE; VAD); Edema (f; VAD); Enterosis (f; KAB; ROE); Erysipelas (f; MPG); Fever (f; DEP; KAB; NAD); Flu (f; VAD); Fungus (f; EGG); Gangrene (f; ROE); Gas (f; EGG; JFM); Gastroses (f; MPG); Gout (f; VAD); Headache (f; MPG); Hepatoses (f; DEP; JFM; KAB; MPG; NAD); High Blood Pressure (f; VAD); Hydrothorax (f; NAD); Hyperazotemia (f; VAD); Infection (f; EGG; ROE); Inflammation (f; MPG; ROE; WBB); Jaundice (f; ROE; UPW); Kidney Stones (f; FAH); Mucososis (f; MPG); Mycosis (f; EGG); Nephroses (f; FAH; MPG); Neuroses (f; JFM); Oliguria (f; VAD); Ophthalmia (f; JFM); Otosis (f; VAD); Pain (f; DEM; MPG); Scarlet Fever (f; ROE); Sores (f; KAB); Stones (f; FAH; VAD); Toothache (f; DEM); Urethritis (f; VAD); UTIs (f; MPG); Warts (f; ROE); Worms (f; FAH; ROE; WBB); Wounds (f; MPG; VAD; WBB).

**Dosages:**

FNFF = ! Tender shoots and leaves cooked as vegetable; once cultivated as potherb, still cut as potherb (NPM; UPW; X15800389).

- Andean Peruvians use the decoction in childbirth, cholera, hepatosis, and worms (ROE).
- Argentinians drink decoction or tea for hepatitis and weak heart, washing sores and wounds in decoction (50 g/l) (JFM).
- Bolivians use decoction for biliousness, colic, dysmenorrhea, gout, headache, hepatoses, nephroses, and neuroses (MPG).
- Brazilians take leaf decoction for diarrhea, dysentery, neuroses, and ophthalmia (JFM).
- Chileans take decoction daily as antibilious, aperitive, and refrigerant (JFM).
- Costa Ricans take for constipation, dyslactea, and hepatoses (JFM).
- Ecuadorians use crushed parboiled plant with lime juice and salt for amebiasis and hepatosis (BEJ).
- Guatemalans use as antiseptic and depurative, in dermatoses, erysipelas, and wounds (MPG).
- Haitians take decoction (10 g leaf/l water, or 20 g root/l) as stomachic (JFM).



- Peruvians regard as antibilious, antiinflammatory, antispasmodic, antiulcer, carminative, depurative, fungicide, hepatic, and stomachic, taking for childbirth, cholera, hepatitis, and worms (EGG; JFM; MPG; ROE).
- Spanish view the herb as analgesic, antiinflammatory, carminative, cholagogue, cicatrizant, diuretic, emmenagogue, febrifuge, and lactagogue, using for cold, cystosis, dermatosis, dyskinesia, flu, gout, high blood pressure, obesity, oliguria, otitis, urethritis, and urogenitosis (VAD).
- Tanganyikans use root as abortifacient and vermifuge (UPW).
- Venezuelans suggest the plant for dermatosis, topically and internally for gas (JFM).

**Downsides:**

Latex allergenic (VAD), possibly causing tenesmus (AHL). May cause liver problems in animals (ROE). As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.

**Extracts:**

Plant extract antioxidant (X14630594).

### SINGAPORE DAISY (*Sphagneticola trilobata* (L.) Pruski) ++

#### ASTERACEAE

**Synonyms:**

*Complaya trilobata* (L.) Strother; *Silphium trilobatum* L.; *Thelechitonina trilobata* (L.) H. Rob. & Cuatrec.; *Wedelia carnososa* Rich.; *W. trilobata* (L.) Hitchc.; fide (USN).

**Common Names:**

Agriao (Brazil; MPB); Boton de Oro (Peru; Sp.; LOR); Gold Button (Eng.; DAV); Goldcup (Eng.; FNF); Kaisinpata (Misquito; IED); Manzanilla (Pr.; AVP); Manzanilla Cimarron (Peru; Sp.; LOR); Manzanilla de Playa (Pr.; AVP); Pasma (Sp.; FNF); Singapoer-Madeliefie (Afrikaan; USN); Singapore Daisy (Eng.; USN). (Nscn).

**Activities:**

Analgesic (f; DAV); Antiseptic (1; MPB); Febrifuge (f; DAV).

**Indications:**

Amenorrhea (f; DAV); Bites (f; IED); Childbirth (f; IED); Coughs (f; MPB); Dysentery (f; DAV); Fever (f; DAV); Flu (f; MPB); Gastrosis (f; DAV); Infection (f1; IED; MPB); Nephrosis (f; DAV); Pain (f; DAV); Podiopathy (f; DAV); Snake Bite (f; IED); Sores (f; DAV); Toothache (f; DAV).

**Dosages:**

FNFF = ?

- Miskitu take decoction for bites and stings of snakes, scorpions, and insects, childbirth and pregnancy, fever, and infections (IED).
- Guatemalans and Hondurans drink the tea for kidney and stomach complaints (JFM).
- Trinidadans use for amenorrhea, dysentery, fever, foot problems, kidney ailments, sores, and stomach problems (DAW; JFM).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

**WORMGRASS (*Spigelia anthelmia* L.) X****LOGANIACEAE****Notes:**

The *Herbal PDR* mentions “wormwood grass” as a selected common name (Fleming et al., 1998). Bad selection. Earlier names in Europe and America were “American wormgrass” or “wormroot,” not “wormwood.” European Floras and Steinmetz (Cerca 1957), e.g., have tended to mix the North American *S. marilandica* with the more tropical American *S. anthelmia* L. I doubt the *Herbal PDR* knows of which they speak.

**Common Names:**

Annual Wormgrass (Jam.; AVP); Ara (Ma.; JFM); Arapa Baca (Brazil; RAR); Bomvier (Ma.; JFM); Branvilliers (Fr.; AVP); Brinvilliere (Creole; Guy.; GMJ); Cresta de Gallo (Ma.; JFM); Doregoman (Ma.; JFM); Erba Lombrigueira (Brazil; GMJ); Espigelia (Cuba; Dor.; AVP); Estreja do Mato (Por.; AVP); Geesten Kam (Ma.; JFM); Guambia (Col.; AVP); Herba a la Brinvilliers (Creole; Guad.; Guy.; AVP; GMJ); Horse Poison (Ma.; JFM); Huambaa (Ma.; JFM); Inanusa (Cuna; IED); Indian Pink (Eng.; Ocn.; AH2); Kanema (Bol.; Chiriguano; AVP); Lombricera (Sp.; AVP); Lombrigueira (Brazil; MPB); Manina (Bol.; Chiriguano; AVP); Pabaca (Ma.; JFM); Pegapinto (Peru; Sp.; MDD; SOU); Pego Pinto (Peru; RAR); Pink (Ma.; JFM); Pinkroot (Eng.; Ocn.; AH2); Pinkweed (Ma.; JFM); Poudre aux Vers (Ma.; JFM); Poudre a Vers (Guad.; AVP); Sangre de Toro (Ma.; JFM); Spicelia (Ma.; JFM); Tojode (Andoke; SAR); Waterweed (Ma.; JFM); West Indian Pink (Eng.; Scn.; AH2; USN); Wormbush (Ma.; JFM); Wormgrass (Eng.; CR2); Yerba de Lombrices (Dor.; AHL); Yerba Lombricera (Dor.; Pr.; Sp.; AVP).

**Activities:**

Anthelmintic (f1; PH2; RAR; X14597278; X16871016; X17211659); Antifeedant (1; X10552828); Cardiac (f1; EFS; X7561902); Cardiotonic (1; EFS; HH2; X11382246; X17345345); Cathartic (f; MPB); Hypertensive (1; HH2; PH2); Insecticide (f1; RAR; X10552828); Insectifuge (f; IED); Larvicide (1; X14597278); Narcotic (f; AHL; EFS; FEL); Nematocide (1; X14597278); Ovicide (1; X14597278); Paralytic (1; X15138009); Poison (f1; PH2; X11382246; X15138009); Positive Inotropic (f; HH2; PH2); Purgative (f; JFM); Sedative (f; EFS; SAR); Soporific (f; EFS); Tonic (f; EFS); Toxic (f1; EFS; X10552828; X15138009); Tranquilizer (f; SAR); Vermifuge (f1; GMJ; HH2; MAD; PH2).

**Indications:**

Angina (f; PH2); Ascaride (f; MAD); Cardiopathy (f1; EFS; FEL; HH2; MAD; PH2; X11382246; X17345345; X7561902); Coughs (f; MAD); Endocarditis (f; FEL; MAD); Fever (f; SAR); Gastrosis (f; IED); Gout (f; MAD); Headache (f; MAD; PH2); Inflammation (f; PH2); Insomnia (f; EFS; SAR); Low Blood Pressure (1; HH2; PH2); Migraine (f; MAD); Myocardosis (f; MAD); Neuralgia (f; FEL; MAD; PH2); Neurosis (f; MAD); Oxyuride (1; MAD); Pain (f; MAD; PH2); Palpitations (f; FEL); Pericarditis (f; MAD); Photophobia (f; MAD); Rheumatism (f; MAD); Roundworm (1; GMH); Scrofula (f; MAD); Stomachache (f; IED); Tachycardia (f; MAD); Tapeworm (f; GMH); Tophus (f; MAD); Worms (f1; GMJ; HH2; JFM; MAD; PH2; RAR; X14597278; X16871016; X17211659).

**Dosages:**

FNFF = X. Don't take it (JAD). Warm root infusion used to bathe children to induce sleep and tranquility (SAR)

- Cuna Indians uses small dose of root for stomachache (IED).
- Surinamese take 1 tsp boiled plant decoction (with roots) 3×/day for worms (JFM).

**Downsides:**

Not covered (AHP; APA; KOM). Large quantities of the drug may induce dyspnea, myositis, spasms, and vomiting (PH2). “Has been used for poisoning humans, the toxic effects similar to those of strychnine” (CRC). Side effects of *S. marilandica* include increased heart action, vertigo, convulsions, and possibly death (FAD). Ethyl acetate extract induces tonic paralysis *in vivo*, and decreases amplitudes of twitches and increases tonus of skeletal muscle *in vitro*; oral and ip mouse LD50 = 345.9 [241.4–484.7] mg/kg and 60.8 [47.4–80] mg/kg, respectively (X15138009). As of July 2007, the FDA Poisonous Plant Database listed 13 titles alluding to toxicity of this species.

**Extracts:**

Extracts anthelmintic against gastrointestinal nematodes of goats and sheep (14597278; X17211659) and *Nippostrongylus braziliensis* in rats (X16871016). Plant alkaloids, isoquinoline and an iridoid compound of the actinidine type, show cardiotoxic activity (X17345345). Spiganthine was isolated as the main cardioactive principle, characterized by a delay in contraction development of the heart muscle (X7561902). LD50 = 222 mg/kg ivn ans (GMJ).

Ryanodine: antifeedant, cardiotoxic, insecticide, insectifuge, and rodenticide, LD50 = 0.1 mg/kg orl mus, toxic, vasopressor, LD50 = 0.30–0.35 ipr rat, LD = 100 ppb ivn dog, LD50 = 0.1 mg/kg orl mus (FNF).

Spiganthine: antifeedant, cardiotoxic, and toxic (FNF).

**HOGPLUM (*Spondias mombin* L.) ++****ANACARDIACEAE****Illustrations:**

fig 134, p 295 (L&W); fig 210 (DAV)

**Synonyms:**

*Spondias aurantiaca*; *S. axillaris*; *S. cytherea*; *S. dubia*; *S. graveolens*; *S. lucida*; *S. lutea* L.; *S. myrobalanus*; *S. nigrescens*; *S. pseudomyrobalanus*; *S. purpurea*; *S. radlkoferi*; *S. venulosa*; *S. zanssee*; fide (RA2; USN).

**Notes:**

McGuffin et al. (1997) cover only this species of *Spondias*, giving it the scn. of “hogplum,” omitting the “purple hogplum,” *S. purpurea*, and the equally important “Asian hog plum,”

*S. pinnata*. Interesting how some American books like Julia Morton's (JFM) give the two closely related species, the "yellow hogplum" (*S. mombin*) and the "red hogplum" (*S. purpurea*), equal footing. Martinez (1969) gives lead billing to *S. purpurea*. *The Useful Plants of West Tropical Africa* gives lead billing to *S. mombin* (UPW). Then there's Egg (1999), who lists *S. purpurea* as a synonym of *S. mombin*, but then gives it a separate account under the local names "ciruela(o)"; clearly he considers there are two species involved. From reading the accounts of Little and Wadsworth (1964) and Morton (1977, 1981), one could construct a key from the descriptions if they are accurate. Both seem scholarly and accurate to me. Oversimplifying, if the fruit is red, it's *S. purpurea*; if it's yellow, it's *S. mombin*, both edible and both medicinal, and I think of them as medicinally generic, though giving them separate accounts (knowing that each takes more than a day to do in draft). Beauvoir et al. (2001), agreeing that both are "used for the same purposes," key them roughly as follows:

- a. Bark with tubercular protrusions; flowers in terminal multi-flowered clusters, greenish-white to cream or white; calyx lobes not imbricate; fruit yellow to orange . . . . . *S. mombin*
- a. Bark smooth; flowers in axillary few-flowered clusters, red to purple; calyx-lobes imbricate; fruit reddish purple . . . . . *S. purpurea*

Bats, coati mundi, and larger monkeys all eat the fruits; still hunters often stake out the trees for frugivorous animals, e.g., the Campa Indians consider it a favored lure for the tapir. On the downside, the fruits are often as laden with fruit fly larvae as guavas. Animals and humans eat the acid leaves of the red hogplum, if not this species.

**Common Names:**

Abal (Ma.; Mex.; AVP; JFM); Acaiba (Brazil; Por.; AVP; JFM; MPB); Acaimiri (Ma.; JFM); Acaja (Por.; AVP); Acajú (Peru; EGG; RAR); Ajuela (Peru; RAR); Ashanti Plum (Ghana; UPW); Bala (Cr.; AVP); Bara (Cr.; AVP); Bequia Plum (Ma.; JFM); Binbish Sheshon (Shipibo; EGG); Caimito (Ven.; AVP); Cajá (Brazil; JFM); Cajá Mirim (Brazil; Por.; AVP; MPB); Caja Pequenyo (Ma.; JFM); Cajá Seira (Brazil; Por.; AVP; L&W); Cajazeiro (Brazil; Ma.; JFM; MPB); Cajazeiro Miudo (Ma.; JFM); Canabal (Ma.; JFM); Canajo (Choco; IED); Cancharana (Peru; EGG; RAR); Cansa Boca (Peru; EGG); Chicpandillo (Ma.; JFM); Chupandilla (Mex.; AVP); Ciruela Agría (Ma.; JFM); Ciruela Amarilla (Cuba; Dor.; Ecu.; AVP); Ciruela Cochina (Bel.; BNA); Ciruela de Cerdo (Peru; EGG); Ciruela de Jobo (Ma.; JFM); Ciruela de la China (Sp.; SOU); Ciruela de Marañon (Peru; EGG); Ciruela de Monte (Hon.; AVP); Ciruela de Pais (Ma.; JFM); Ciruela Loca (Ma.; JFM); Ciruela Obo (Ma.; JFM); Ciruela Tronadora (Ma.; FAC; JFM); Ciruelo Cimarron (Mex.; FT74:725); Ciruelo Mango (Ma.; JFM); Ciruelo Obo (Mex.; AVP); Creole Plum (Ma.; JFM); Cuajo (Ven.; AVP); Danya (Sudan; AVP); Diji (Ese'aja; EGG; MD2); Gelbe Mombinpflaume (Ger.; USN); Gelbpflaume (Ger.; USN); Grand Mombin Franc (Haiti; AVP); Gros Mombin (Haiti; AVP); Guama Zapatero (Ven.; AVP); Gully Plum (Ma.; JFM); Hoba (Ma.; JFM); Hobo (Mex.; AVP); Hobo de Monte (Ma.; JFM); Hoeboc (Ma.; JFM); Hogplum (Eng.; USN); Hooboo (Guy.; Sur.; AVP); Hubu (Br. Guy.; JFM; L&W); Hubus (Peru; SOU); Imbu (Por.; USN); Itahuba (Peru; EGG; SOU); Jamaica-Plum (Eng.; AVP; JFM.; USN); Jobillo (Pr.; AVP); Jobito (Cuba; Pan.; AVP); Jobo (Cuba; Eng.; Sp.; USN); Jobo Arisco (Ma.; JFM); Jobobán (Dor.; L&W); Jobo Blanco (Col.; AVP); Jobo Colorado (Col.; AVP); Jobo de Castilla (Col.; AVP); Jobo de Perro (Ma.; JFM); Jobo de Puerco (Dom.; AVP); Jobo Espinoso (Ma.; JFM); Jobo Gusanero (Pr.; AVP; L&W); Jobo Hembra (Cuba; Ma.; JFM; L&W); Jobo Jocote (Guat.; Ma.; JFM; L&W); Jobolan (Sp.; AVP); Jobo Montero (Ma.; JFM); Jobo Negro (Ma.; JFM); Jobo Ronyoso (Ma.; JFM); Jobo Vano (Ma.; Pr.; JFM; L&W); Jocote (Hon.; Nahuatl; AVP; L&W; RAR); Jocote Amarillo (Ma.; JFM); Jocote de Jobo (Nic.; AVP); Jocote Jobo (Guat.; AVP); Jocote Montanero (Nic.; JFM; L&W); Jocote Montero (Nic.; AVP); Jojoban (Ma.; JFM); Joshin Sheshon (Peru; Shipibo/Conibo);



EGG); Jovo (Ma.; JFM); Kadondong Abrong (Sunda; IHB); Kadondong China (Sunda; IHB); Kadondong Chuchuk (Sunda; IHB); Kanabal (Bel.; Ma.; BNA; JFM); Kinim (Ma.; JFM); Likele (Congo; AVP); Macaprien (Dwi.; AVP); Marapa (Ven.; AVP); Marope (Peru; EGG; RAR); Mingo (Sudan; AVP); Minkon (Ivo.; AVP); Mirobalane (Haiti; AVP); Mirobalano (Ma.; JFM); Mombin (Fr.; USN); Mombin Franc (Haiti; AVP; L&W); Mombin Fruits Jaunes (Guad.; Ma.; JFM; L&W); Mombinier (Fwi.; AVP); Mompe (Peru; EGG); Monbe (Sur.; AVP); Monben (Creole; Haiti; VOD); Monben Fran (Creole; Haiti; VOD); Monbin (Ma.; JFM); Monbin Franc (Ma.; JFM); Monbinier (Ma.; JFM); Mongenge (Congo; AVP); Mopé (Sur.; AVP; L&W); Moppe (Ma.; JFM); Mube (Cr.; AVP); Mungiengie (Congo; AVP); Nobega (Ivo.; AVP); Noma (Ma.; JFM); Oba (Ma.; JFM); Obo (Ma.; JFM); Obo de Zopilote (Ma.; JFM); Palo de Mulato (Ma.; JFM); Paran (Cr.; AVP); Plumbush (Br. Guy.; JFM; L&W); Poc (Ma.; JFM); Pok (Bel.; Guat.; AVP; BNA); Pompoqua (Ma.; JFM); Prune Icaque (Wi.; UPW); Prune Mombin (Guad.; Ma.; JFM; L&W); Prune Myrobalan (Ma.; JFM); Prunier Mombin (Fr.; USN); Prunier Myrobalan (Guad.; Ma.; JFM; L&W); Prunier Myrobo'ane (Fwi.; AVP); Quinum (Ma.; JFM); Sheshon (Shipibo/Conibo; EGG; MD2); Shunga (Peru; AVP); Shungo (Peru; RAR); Shungu (Peru; EGG; JFM); Shungu Ushum (Peru; RAR); Sirínguela (Gari-funa; IED); Sua (Cuna; IED); Taperebe (Ma.; JFM); Taperiba (Ma.; Peru; EGG; JFM; SOU); Tepereba (Por.; USN); Tobo de la Montaña (Peru; EGG); Troma (Ivo.; AVP); Tronador (Peru; RAR); Tsiyoroqui (Ashaninka; EGG; RAR); Ubo (Peru; AVP); Ubos (Sp.; USN); Ushum (Peru; EGG; SOU); Ushun (Ma.; Peru; EGG; JFM); Uvo (Peru; AVP); Wild Plum (Cr.; Pan.; AVP; JFM; L&W); Xuxoon (Amahuaca; EGG; RAR); Yellow Mombin (Eng.; JFM; USN; VOD); Yellow Plum (Dwi.; AVP; JFM); Ylopo (Peru; Piro; Yine; EGG; MD2).

### Activities:

Abortifacient (f1; RA2); Analgesic (f; DAW; EGG; RAR; RA2); Anthelmintic (f1; RA2); Antiarthritic (f; RA2); Antiasthmatic (f; RAR); Anticarcinogenic (f1; RA2); Anticonvulsant (1; RA2); Antidopaminergic (1; RA2); Antidote (poison) (f; UPW); Antidysenteric (f; RA2); Antifertility (f; EGG); Antiherpetic (1; MPB); Antiinflammatory (f1; RA2); Antioxidant (1; RA2); Antirheumatic (f; RA2); Antiseptic (f1; EGG; FT74:725; IED; RA2; TRA); Antispasmodic (f1; EGG; RAR; RA2); Antitussive (f; RA2); Antiulcer (f; RA2); Antiviral (f1; RA2; TRA); Anxiolytic (1; RA2); Aphrodisiac (f; UPW); Astringent (f1; EB30:131; EGG; RA2; VOD; WOI); Bactericide (f1; RA2; X10479760); Beta-Lactamase-Inhibitor (1; RA2); Candidicide (1; RA2); Cardioactive (f; MPB); Cicatrizant (f; EGG; RA2); Contraceptive (f; DAV; EGG; RA2; VOD); COX-inhibitor (1; RA2); Cytotoxic (1; RA2); Diuretic (f; DAW; RA2); Emetic (f; JFM); Expectorant (f; WOI); Fungicide (1; RA2); Hemostat (f1; DAV; EGG; MD2; RA2); Lactagogue (f; RA2); Laxative (f; WOI); Myorelaxant (f1; RA2; TRA; VOD); Nervine (f; RA2); Oxytocic (f; RA2); Poison (f; DAW); Purgative (f; JFM; WOI); Refrigerant (f; RA2); RT-Inhibitor (1; RA2); Sedative (1; RA2); Sterilant (f; DAV); Stimulant (f; RA2); Stomachic (f; MPB; RA2); Taenifuge (f; WOI); Tonic (f; RA2; UPW); Uterorelaxant (f; VOD); Uterostimulant (1; RA2); Uterotonic (1; TRA); Vermifuge (f; RA2; WOI); Vulnerary (f; RA2; VOD; WOI).

### Indications:

Abortion (f1; RA2); Amebiasis (f; VOD); Anemia (f; EGG); Angina (f; JFM; VOD); Anxiety (1; RA2); Arthritis (f; RA2); Asthma (f; EB29:285; EGG); Backache (f; VOD); Bacteria (f1; RA2; X10479760); Bilioussness (f; JFM); Bleeding (f1; DAV; MD2; RA2); Bleennorrhagia (f; EGG); Bronchosis (f; UPW); Bruises (f; EGG; RAR); Cancer (f1; RA2); Cancer, ovary (f1; RA2); Cancer, uterus (f1; JLH; RA2); *Candida* (1; RA2); Cardiopathy (f; JFM; MPB); Cataract (f; EGG); Childbirth (f; DAV; VOD); Colds (f; IED); Congestion (f; EB29:285; VOD); Constipation (f; JFM); Convulsions (1; RA2); Coughs (f; RA2; UPW; WOI); Coxsackie (1; MPB); Cystosis (f; JFM); Dermatoses (f; EGG; JFM; VOD); Diarrhea (f1; EB30:131; EGG; MD2; RA2); Dysentery (f1; FT74:725; RA2); Dysmenorrhea (f; DAV; EGG); Enterosis (f;

MD2; UPW; VOD); Erysipelas (f; EB30:131; EGG; JFM); Erythema (f; EGG); Exhaustion (f; WOI); Fatigue (f; JFM); Fever (f; IED; RA2; VOD); Fungus (f1; RA2; UPW); Gas (f; VOD); Gastrositis (f; DAV; FT74:725; VOD); Gonorrhoea (f; IED; VOD); Hemorrhoids (f; EGG; JFM); Herpes (1; MPB; VOD); Infection (f1; DAV; MD2; MPB; RA2; VOD; X10479760); Inflammation (f1; JFM; RA2; UPW; WOI); Itch (f; VOD); Laryngitis (f; EGG; RAR; VOD); *Leishmania* (f; EGG); Leprosy (f; DAW; UPW); Leukorrhoea (1; MPB); Malaria (f; VOD); Malignancy (f; DAW); Miscarriage (f; UPW); Mycosis (f; UPW); Nausea (f; UPW); Nephrosis (f; EB30:131; JFM); Ophthalmia (f; RAR; WOI); Pain (f; DAV; EGG; RAR; RA2); Palsy (f; JFM); Prickly Ash (f; EGG); Psoriasis (f; EGG; RAR); Rash (f; IED; RA2); Rheumatism (f; RA2); Snake Bite (f; EGG); Sores (f; DLZ; EB30:131; JFM); Sore Throat (f; EB30:131; VOD); Spasms (f1; DAW; RA2); Stomachache (f; FT74:725); Stress (1; RA2); Swelling (f; DAW; MPB); Tetanus (f; JFM); Thrush (f; EB30:131); Toothache (f; UPW); Tuberculosis (f; DAV; EGG); Tumors (f; JLH); Ulcers (f; DLZ; EGG; MD2; RA2); Urethritis (f; DAW; JLH; MPB; VOD); Uterosis (f; JFM); Vaginosis (f; EGG; JFM); VD (f; JFM; VOD); Viruses (1; TRA; VOD); Worms (f1; RA2; WOI); Wounds (f; FT74:725; IED; MD2; RA2).

### Dosages:

FNFF = !! Fruits eaten, used on ice creams, in jams, and liqueurs, made into cider in Guatemala and Venezuela; young leaves of some species considered edible, cooked as greens. Unripe fruits pickled like olives. Native Americans make wines or flavor rums with the fruits; bark used as an additive with sugarcane in pulque. Roots can yield potable water. Seeds considered edible in Africa (FAC; JFM; RA2; TAN). Fruit considered diuretic, emetic, febrifuge, and purgative (JFM; UPW), eaten for hypertrophy of the heart and ulcers of the vagina and uterus (JFM). 1 cup bark decoction 2–3×/day for inflammation (RA2); 2 ml bark tincture 2×/day as bactericide and for pain (RA2); 1 cup leaf infusion 2–3×/day as bactericide and sedative (RA2); 1–2 g capsules 2×/day as parasiticide and viricide (RA2).

- Africans take bark a/o leaf infusions as an aid in childbirth, for constipation, cough, fever, gonorrhoea, stomach problems, tapeworms, and yaws (RA2).
- Barbadians take buds and young leaves in tea for colds (JFM).
- Belizeans take the leaf a/o floral decoction for diarrhoea, dysentery, gonorrhoea, and sore throat, using the bark/leaf decoction, or poultice, on inflammations, insect bites and stings, rashes, sores, and wounds (RA2).
- Bolivians suggest applying grated bark onto wounds, the bark decoction as an enema in internal ulcers (DLZ).
- Brazilians take fruit or its juice as a cardiogenic, for angina, stomach ulcers, uterosis, and vaginal disorders, the seed infusion as a diuretic for bladder and urinary problems, and for leucorrhoea (RA2).
- Brazilians take the floral infusion as a cardiogenic and stomachic, for cardiopathy, debility, diarrhoea, laryngitis, palpitations, and weakness (RA2).
- Brazilians use bark decoction for bleenorragia, colic, diarrhoea, dysentery, fever, gonorrhoea, and hemorrhoids, and stomach problems, applying topically to swelling caused by erysipelas (JFM; RA2; UPW); the infusion for malaria, sore throats, and tonsillitis (RA2).
- Brazilians use the leaf decoction a/o infusions for angina, childbirth, constipation, cystitis, diarrhoea, dyspepsia, eye infections, fever, gastralgia, laryngitis, prostatitis, tonsillitis, and urethritis, using the infusion both internally and externally as an antiviral for herpes (RA2).
- Cameroons take the fruit a/o leaf decoctions for chronic diarrhoea (RA2).
- Campa-Ashaninka Indians apply powdered bark as an astringent to cutaneous leishmaniasis, using the fruits as tapir bait (RA2).

- Caribs use the bark as a myorelaxant, uterotonic, and viricide (RA2).
- Colombians use the bark for diarrhea and vaginal infections, taking bark infusion as a contraceptive and for menstrual disorders, using the decoction as a wash for wounds (RA2).
- Creoles take bark decoction for diarrhea and stomachaches (RA2).
- Cubans and Cuna Indians use bark decoction as a douche for uterine cancer (IED; JLH; RA2).
- Cubans eat quantities of fruit when in need of emesis or purging (JFM).
- Curaçaoans use leaf decoction for colds, others for bilious fever, conjunctivitis, constipation, cystosis, sore throats, and stomachache (JFM).
- Dominicans use the leaves in childbirth, cuts, lactation problems, and sore throat (VOD).
- Garifuna take bark decoction for diarrhea, fever, infections, and skin rashes (RA2).
- Guadeloupans take leaf decoction as an aid in childbirth (RA2).
- Guatemalans take leaf a/o root infusions for gonorrhea (RA2).
- Guianas eat the fruit as a mild laxative, or stewed for diarrhea; the root infusion/decoction for colds, cough, and dysentery, applying externally to hemorrhage and sores; stem-bark infusion as a sudorific, for diarrhea, fatigue, gonorrhea, and stomachache (RA2).
- Guianas use leaf decoction for abortion, diarrhea, dysentery, hemorrhages, and sores, the leaf/stem decoction as an eye wash, and the floral infusion for sores of the mouth (RA2).
- Guineans use the bark for coughs and apply the bark decoction for leprosy (RA2).
- Haitians use bark decoction for diarrhea, gonorrhea, and ophthalmia, the macerated root or its decoction for angina, gonorrhea, metrorrhagia, sore throats, and urethritis (RA2; VOD).
- Haitians use the fruit syrup for angina (JFM).
- Ivory Coastals use the leaves externally as a hemostat (RA2).
- Jamaicans chew leaf buds or take leaf decoction (purple and yellow mombin) for colds (JFM; RA2), the bark/leaf infusion for edema (RA2).
- Mali drink the leaf decoction or use as a lotion during childbirth (RA2).
- Mayas take the bark decoction for dysentery (RA2).
- Mexicans bathe feet in bark decoction for fatigue (JFM), taking the bark decoction for bladder and kidney stones (RA2).
- Nicaraguans take bark a/o leaf decoctions for diarrhea, fever, and infections, applying topically to rashes and sores (RA2).
- Nigerians apply the leaves to malignant tumors (JLH), using the leaf decoction to aid childbirth, for burns, cholera, cough, diarrhea, dizziness, fever, gonorrhea, sore throats, tapeworms, thrush, tumors, wounds, and yaws, the leaf tincture for nervous disorders, and the fruit as an antiinflammatory, expectorant, and febrifuge (RA2).
- Peruvians apply ashes of roasted ground bark onto leishmanic sores (EGG), the bark resin to wounds (RA2).
- Peruvians apply or take powdered bark, decoction, or infusion for anemia, asthma, blennorrhagia, cysts, dermatosis, diarrhea, dysmenorrhea, erysipelas, erythema, fungal and yeast infections, gastritis, hemorrhage, hemorrhoids, laryngitis, leishmaniasis, menstrual pain, ovarian cancer, psoriasis, snake bite, tuberculosis, as a douche after abortion, miscarriage, and for vaginal infections (combined with cedar, cashew, and guava leaves) (RA2).
- Peruvians apply juice from young buds (EGG), or floral infusion (RA2), to cataracts.
- Peruvians take the fruit a/o juice as an astringent, emetic, and a vomitive, for anemia (EGG), cystitis, fevers, and urethritis, and using externally for wounds (RA2).

- Shipibo-Conibo use the bark decoction for debility, dehydration, diarrhea, infections, as a vaginal wash, and for wounds (RA2).
- Tikuna Indians take the bark decoction as analgesic, contraceptive, and hemostat, for diarrhea, metrorrhagia, and stomachache (RA2).
- Trinidadians use leaf decoction to bathe erysipelas and sores, as a gargle for thrush and sore throat, or take it orally for colds and diarrhea (JFM).
- Upper Voltas use for leprosy (RA2).
- Warao Indians take the bark decoction for cough, diarrhea, dysentery, pertussis, skin lesions, and stomachache (RA2).

**Downsides:**

No drug interactions reported. Studies show leaves to be anxiolytic and sedative and may enhance the effect of other antianxiety or sedative medications (RA2). Leaves traditionally used to aid childbirth, induce labor, and as an abortive, the bark as a contraceptive, therefore not recommended for use during pregnancy or if seeking to become pregnant (RA2). The leaves contain salicylic acid derivatives; avoid use if allergic or you have sensitivity to aspirin or salicylic acid (RA2). Leaves reportedly nontoxic orally in animals (up to 5 g/kg) but leaf extract toxic when injected (LD50 1.36–1.86 gm/kg) (RA2). As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

**Extracts:**

Leaves reportedly abortive, antibacterial, anticandidal, anticonvulsant, antioxidant, antiviral (Herpes, HIV, coxsackie, polio, and rotoviruses), anxiolytic, hemostatic, sedative, smooth muscle relaxant, uterine antispasmodic, and uterostimulant (RA2). Leaves given to sheep with intestinal worms (2 doses of 500 mg/kg) reduced fecal egg counts by 54% for *Strongyloides*, 65% for *Oesophagostomum*, and 100% for *Tichuris* parasites, and additionally killed parasites directly (RA2). Bark and/or stem bark reportedly with antibacterial, anticancer, anticandidal, antifungal, antiinflammatory, and COX-inhibitor activities (RA2).

**RED HOGPLUM (*Spondias purpurea* L.) ++**  
**ANACARDIACEAE**

**Illustrations:**

fig 135, p 297 (L&W); fig 211 (DAV)

**Synonyms:**

*Spondias cirouella* Tussac; fide (USN).

**Notes:**

Several authors (e.g., DLZ, VOD) suggest that the uses and medicinal applications are the same as for *Spondias mombin*. The contrasting descriptions in Little and Wadsworth (1964) lead to the following key:

- Bark with spine-like excrescences protrusions; flowers in terminal multifloral panicles 6–12 or more inches long; fruit orangish, pits 1 inch long . . . . . *S. mombin*
- Bark smooth but warty in age; flowers in few-flowered panicles beneath the leaves; fruit purplish, pits ½–¾ inch long . . . . . *S. purpurea*

Bats, coatimundi, and larger monkeys all eat the fruits; still hunters often stake out the trees for frugivorous animals, even large animals like tapirs. Fruits are used to fatten hogs. I have faced off with peccaries eating *Astrcaryum* and *Spondias* fruits near Tambopata. Grazing animals (and humans) eat the acid tart leaves of this species of hogplum.





**Common Names:**

Abal (Mex.; AVP); Ab-él (Bel.; BNA); Abricotier Bâtard (Fr.; His.; AHL; AVP); Ab-úl (Bel.; BNA); Ajuela Ciruela (Peru; L&W); Ajuelo (Peru; AVP); Biaxhi (Mex.; AVP); Cajá (Brazil; L&W); Cajamanga (Bol.; DLZ); Cajarana (Brazil; AVP); Cajá Umbú (Brazil; AVP); Chia-bal (Mex.; AVP); Chitu (Bol.; Chiriguana; DLZ); Ciroela (Brazil; AVP; L&W); Cirouelle (Haiti; L&W); Cirouellier (Haiti; AHL); Ciroyer d'Amerique (Fr.; His.; AHL; AVP); Ciruela (Cr.; Cuba; Pr.; AVP; L&W); Ciruela Agria (Peru; RAR; SOU); Ciruela Campechana (Cuba; L&W); Ciruela Colorado (Col.; Cuba; Ecu.; L&W); Ciruela de Hueso (Ven.; AVP); Ciruela del Pais (Pr.; L&W); Ciruela de Nicaragua (Peru; RAR); Ciruela Morado (Dor.; AHL; L&W); Ciruela Sanjuanero (Dor.; AHL; L&W); Cupu (Mex.; AVP); Hobo (Ecu.; L&W); Hobo Colorado (Col.; L&W); Hogo (Mex.; AVP); Imbuzeiro (Brazil; L&W); Jamaica Plum (Dwi.; Trin.; L&W); Jobillo (Pr.; L&W); Jobito (Cr.; L&W); Jobo (Bel.; Sal.; L&W); Jobo Francés (Pr.; AVP; L&W); Jobo Negro (Dor.; AHL); Jocote (Bel.; Bol.; Mex.; BNA; DLZ; L&W); Jocote Común (Nic.; AVP; L&W); Jocote de Invierno (Sal.; L&W); Jocote Jobo (Sal.; L&W); Jocoto (Cr.; AVP); Makka Pruium (Dwi.; L&W); Mazatxocotl (Aztec; Mex.; MAX); Mombin Rouge (Guad.; Mart.; St. Bart.; AVP; L&W); Palo de Mulato (Guat.; AVP); Pitarillo (Sal.; L&W); Plum (Bel.; BNA); Prune à Têter (Guad.; Mart.; AVP); Prune d'Espagne (Guad.; Mart.; St. Bart.; L&W); Prune du Chili (Guad.; Mart.; L&W); Prune Jaune (Guad.; L&W); Prune Rouge (Guad.; L&W); Purple Mombin (Eng.; Pr.; L&W); Purple Plum (Vi.; AVP; L&W); Red Mombin (Eng.; L&W); Red Plum (Dwi.; L&W); Siwel (Creole; Haiti; L&W); Spanish Plum (Eng.; FAC; L&W); Umbú (Por.; AVP); Umbuzeiuro (Por.; AVP); Wild Plum (Cr.; Eng.; Pan.; L&W); Yocote (Mex.; AVP).

**Activities:**

Antiinflammatory (f; AHL); Antispasmodic (f; MAX); Astringent (f; MAX; VOD); Bactericide (1; X2214824; X8479202); Contraceptive (f; VOD); Depurative (f; AHL); Diaphoretic (f; AHL); Diuretic (f; MAX); Febrifuge (f; AHL); Laxative (f; AHL); Litholytic (f; JFM); Myorelaxant (f; VOD); Stimulant (f; DAW); Sudorific (f; AHL); Uterorelaxant (f; VOD); Vermifuge (f; JFM); Vulnerary (f; AHL; VOD).

**Indications:**

Amebiasis (f; JFM; VOD); Angina (f; VOD); Backache (f; VOD); Bacteria (1; X2214824; X8479202); BPH (f; MAX); Calculus (f; MAX); Childbirth (f; VOD); Colds (f; JFM); Congestion (f; EB29:285; VOD); Constipation (f; AHL); Cystosis (f; MAX); Dermatitis (f; AHL; VOD); Diarrhea (f; JFM; MAX); Dysentery (f; JFM); Dysuria (f; MAX); Enterobacteria (1; X2214824; X8479202); Enterosis (f1; VOD; X8479202); Fever (f; AHL; VOD); Fungus (f; JFM); Gas (f; VOD); Gastrosis (f1; VOD; X2214824); Gonorrhoea (f; VOD); Hepatitis (f; JFM); Infection (1; X2214824; X8479202); Inflammation (f; AHL); Itch (f; DAW; VOD); Jaundice (f; JFM); Laryngitis (f; VOD); Malaria (f; AHL; VOD); Mycosis (f; JFM); Ophthalmia (f; JFM); Sores (f; AHL; DLZ; JFM); Sore Throat (f; VOD); Spasms (f; MAX); Stones (f; JFM; MAX); Strangury (f; MAX); Thrush (f; JFM); Tumors (f; JFM); Ulcers (f; DLZ); Urethritis (f; AHL; VOD); VD (f; VOD); Worms (f; JFM); Wounds (f; AHL; VOD); Yeast (f; JFM).

**Dosages:**

FNFF = !! Fruits tart and agreeable; consumed raw, dried for future use, candied, cooked, jellied, stewed, or fermented into ciders, or wines as, for example, in Hispaniola; unripe fruits pickled in vinegar or made into green salsas; sour leaves eaten, raw or cooked (AHL; FAC; JFM).

- Bolivians suggest applying grated bark onto wounds, the bark decoction as an enema in internal ulcers (DLZ).
- Brazilians use bark decoction for ophthalmia (JFM).

- Costa Ricans drink young shoot decoction for amebic dysentery (JFM).
- Cubans take leaf juice for thrush and pediatric tumors (JFM).
- Haitians use bark decoction for worms (JFM).
- Haitians use the resin to draw out thorns (JFM).
- Hispaniolans use powdered leaves as a vulnerary cataplasm, fruit juice as stimulant (AHL).
- Jamaicans boil leaves of hogplum and red hogplum to relieve colds (JFM).
- Mexicans suggest the leaf macerate in water for water retention and prostate problems (MAX).
- Mexicans use bark/leaf decoction for fever, bark alone for diarrhea (JFM).
- Venezuelans poultice inner bark on old sores (JFM).
- Yucatanese take aqueous bark extract for bladder stones and diarrhea (JFM).

**Downsides:**

Actually this could probably apply to most tropical fruits in most tropical countries: 30% of fruit samples, 70% of derived juices, and 96% of fruit salads had fecal coliform suggestive of *E. coli*, *Salmonella* spp. and *Shigella* spp. The studies were in Costa Rica of pineapple (*Ananas comosus*), papaya (*Carica papaya*), mango (*Mangifera indica*), watermelon (*Citrullus vulgaris*), nance (*Byrsonima crassifolia*), and jocote (*Spondias purpurea*). (X8729262).

**Extracts:**

84 of 408 Guatemalan plants studied, including *Spondias purpurea* (the 8th most potent), inhibited enterobacteria (X8479202). Plant shows antibacterial activity *in vitro* (X2214824).

**RATTAIL (*Stachytarpheta cayennensis* (Rich.) Vahl) ++**

## VERBENACEAE



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**Synonyms:**

*Stachytarpheta guatemalensis* Moldenke; *S. urticifolia* Sims; *Valerianoides cayennense* Kuntze fide JFM; *Verbena cayennensis* Rich.; fide (BNA; USN).

**Common Names:**

Blue Snakeweed (Aust.; Eng.; USN); Bluetop (Eng.; USN); Blue Vervain (Bel.; BNA); Camacolal (Bel.; BNA); Cayenne Snakeweed (Aust.; Eng.; USN); Cayenne Vervain (Ma.; JFM); Cha'do

Brasil (Ma.; JFM); Cola de Millo (Ma.; JFM); Cotacam (Bel.; BNA); Gervao das Taperas (Brazil; MPB); Gervao Flor de Veronica (Brazil; AVP); Gervao Roxo (Brazil; MPB); Gervão-Urticante (Brazil; USN); Golondrina (Ma.; JFM); Honagaso (Japan; USN); Kalaipea (Wayāpi; GMJ); Kunamila (Wayāpi; GMJ); Mozote (Ma.; JFM); Ocullucuy Sacha (Peru; Sp.; EGG; LOR; RAR); Porterweed (Ma.; JFM); Rattail (Eng.; USN); Rattail Verveine (Ma.; JFM); Rinchao (Brazil; Por.; GMJ; MPB); Rough-Leaf False Vervain (Aust.; Eng.; USN); Sacha Verbena (Peru; Sp.; EGG; LOR); San Diego (Ma.; JFM); San Diego Vervena (Ma.; JFM); Snakeweed (Eng.; USN); Styetolok (Ma.; JFM); Utiutimna (Palikur; GMJ); Utiutivie (Palikur; GMJ); Verbena (Bel.; Dor.; AHL); Verbena Falsa (Brazil; MPB); Verbena Negra (Peru; EGG; SOU); Vervain (Bel.; BNA); Verveine de la Guyane (Guad.; AVP); Verveine Queue de Rat (Creole; Guy.; GMJ); Vorvine (Creole; Nic.; IED); Wild Broom (Ma.; JFM); Wild Verbena (Bel.; BNA); Xtyay-Ach-Bak-Shel (Bel.; BNA); Xtyay-Ach-Bak-Shul (Bel.; BNA).

### Activities:

Analgesic (f1; JE60:53; MPB; X15636175; X9533432); Antacid (1; X9063095); Antibradykinic (1; JE60:53); Antiemetic (f; RAR); Antihistaminic (1; JE60:53); Antiinflammatory (f1; JE60:53; X16219439; X9533432); Antiulcer (1; X15636175; X9063095); Cholagogue (f; GMJ); Cicatrizant (f; RAR); Depurative (f; RAR); Diuretic (f; MPB); Febrifuge (f; MPB; RAR); Fungicide (f; EGG; RAR); Gastroprotective (1; X16219439); Hypoglycemic (1; X17318784); Laxative (1; X15636175; X9063095); Panacea (f; DAV); Purgative (f; GMJ); Stimulant (f; MPB); Sudorific (f; MPB); Tonic (f; MPB); Toxic (f; RAR); Vermifuge (f; IED).

### Indications:

Allergies (1; JE60:53); Cancer (f; EGG; RAR); Cardiopathy (f; EGG; RAR); Chest Colds (f; RAR); Childbirth (f; IED); Colds (f; EGG; GMJ); Constipation (f1; X15636175; X9063095); Coughs (f; EGG); Diabetes (f1; DAV; EGG; X17318784); Dysentery (f; EGG; GMJ; JFM); Dysuria (f; JFM); Fever (f; EGG; MPB; RAR); Fungus (f; EGG; GMJ; RAR); Gastrosis (f1; MPB; X16219439); Headache (f; GMJ); Heartburn (1; X9063095); Hyperglycemia (1; X17318784); Infection (f; EGG; GMJ; RAR); Inflammation (1; JE60:53; X16219439; X9533432); Malaria (f; JFM); Mycosis (f; GMJ); Nausea (f; RAR); Ophthalmia (f; EGG; RAR); Pain (f1; JE60:53; MPB; X15636175; X9533432); Parasites (f; EGG); Pregnancy (f; IED); Pulmonosis (f; IED); Respirosis (f; IED); Sores (f; MPB); Stomachache (f; MPB); Typhoid (f; EGG; RAR); Typhus (f; RAR); Ulcers (1; X15636175; X9063095); VD (f; IED); Worms (f; IED; RAR); Wounds (f; RAR).

### Dosages:

FNFF = ?

- Guatemalans take decoction for malaria and other fevers (JFM).
- Nicaraguan Garifuna use leaf decoction for childbirth, constipation, fever, parasites, pregnancy, respiratory-pulmonary disorders, VD, and worms (IED).
- Peruvians drink 1 glass/day of the juiced plant for 3 months for diabetes (DAV).
- Peruvians take leaf juice for colds, cough, diabetes, and parasites (EGG).
- Trinidadians use decoction for chest cold, congestive heart trouble, dysuria, fever, and worms (JFM).

### Extracts:

No toxic signs were observed after administering different extracts up to 2,000 mg/kg orl rat. Results confirmed folklore of analgesic, mild laxative, and potent inhibition of gastric secretion activities of aqueous extracts (X15636175). Oral administration of aqueous leaf infusion (tea) (125 mg/kg) and methanolic extracts (2,000 mg/kg) to alloxan-diabetic rats showed significantly reduced blood glucose levels, 43 and 53%, respectively, and after a 4-hr period was similar to glibenclamide (5 mg/kg p.o.) (X17318784). Alcoholic and n-butanolic dried leaf extracts inhibited carrageenin-inducing edema formation (100–200 mg/kg ip rat) and exhibited antinociceptive activity (100–300 mg/kg i.p. and p.o.) (X9533432).

**BRAZILIAN TEA (*Stachytarpheta jamaicensis* (L.) Vahl.) ++**

## VERBENACEAE

**Illustrations:**

fig 289 (IED)

**Synonyms:**

*Cymburus urticifolia* Salisbury; *Stachytarpheta indica* Vahl; *Verbena jamaicensis* L.; fide (MPG; USN). Many others listed (in MPG).

**Notes:**

Taylor (2005) says, and I agree, that *V. cayennensis* and *V. stachytarpheta* share many uses, habitats, and common names throughout the tropics. The calyx is 4-toothed in *S. cayennensis*, 2-toothed in *S. jamaicensis*. Kirtikar and Basu (1975) and CSIR (1948–1976) equate *V. jamaicensis* with *S. indica* (KAB; WOI).

In Costa Rica, *Stachytarpheta* is regularly visited by skippers (*Hesperidae*) and *Euglossa*, *Eulaena* and large anthophorid bees (TBC).

**Common Names:**

Aaron's Rod (Eng.; KAB); Ankasa (Fanti; KAB); Balanakutta (Sin.; KAB); Balerian (Ma.; JFM); Bastard Vervain (Aust.; Eng.; Jam.; AUS; FAC; JTR; USN); Berbena (It.; AVP); Blue Flower (Ma.; JFM); Blue Flower Vine (Ma.; JFM); Blue Porterweed (Eng.; AUS; FAC; USN); Blue Snakeweed (Aust.; Eng.; USN); Brazilian Tea (Aust.; Eng.; FAC; USN; VOD; WOI); Bretónica (Pr.; AUS); Chilillo (Ma.; Mex.; AUS; JFM); Chirchiti (Ranchi; WOI); Cola de Millo (Pan.; AUS; IED); Crête d'Inde (Fr. Guiana; KAB); Eisenkraut (Ger.; AVP); Eyebright (Montserrat; AUS); Gervão (Brazil; RAI; RAR); Gervão Verdadeiro (Brazil; AUS; MPB); Gewongan (RAI); Gros Verveine (Creole; Guy.; GMJ); Gwan Vèven (Haiti; Trin.; AUS); Herbe à Chenilles (Réunion; KAB); Herbe à Tous les Maus (Fr.; AVP); Herbe aux Enchantements (Fr.; AVP); Herbe aux Sorciers (Fr.; AVP); Herbe de Sang (Fr.; AVP); Herbe du Foie (Fr.; AVP); Herbe Sacrée (Fr.; AVP); Herb of the Cross (Eng.; AUS); Holly Herb (Eng.; AVP); Ibinxiu (Mex.; AUS; MAX); Isri Wiriwiri (Ma.; AUS; JFM); Izjerkruud (Dutch; Sur.; AUS); Jalajali (Oriya; SKJ); Jamaica (Eng.; TBC); Jamaica False Vervain (Eng.; SKJ); Jamaica Vervain (Aust.; Ma.; JFM; USN); Jarbao (Brazil; KAB; RAI); Kadu Utarani (Kar; SKJ); Kadu Uttarani (Kan.; WOI); Kariyartharani (Hindi; SKJ); Kariyuttarani (Kan.; KAB); Kueíkuieít (Car.; Dom.; AUS); Kuribiu Akkuani (Car.; Dom.; AUS); Light Blue Snakeweed (Aust.; Eng.; USN); Linga di Baca (Dwi.; Ma.; AUS; JFM); Longri (Nagaland; SKJ); Marangchirchiti (Bihar; Ranchi; KAB; WOI); Marangcircuiti (Mun.; KAB); Mes (Ma.; JFM); Naioringi (Tam.; SKJ); Naoiringi (Sri.; KAB); Orgibao (Brazil; KAB); Pigeon Grass (Eng.; AVP); Porterweed (Eng.; AUS; IED; JFM; RAI); Rattail (Eng.; RAI); Rattestaart (Dutch; AUS; JFM); Rinchao (Pan.; TBC); Rincho (Brazil; AUS); Rooster Comb (Ma.; JFM); Rumput Tahí Babi (RAI); Selaseh Dandi (RAI); Seta Sitir Kad (Ranchi; WOI); Simainavirunji (Tam.; KAB); Simainayuruvi (Tam.; WOI); Simbunugit (Cuna; AUS; IED; JFM); Smuta (Ben.; SKJ); Talche (Maya; Mex.; AUS; MAX); Ucullucui (Peru; RAR); Urgevao (Brazil; KAB); Utiranni (Kan.; WOI); Veng Veng (Wi.; AUS); Verbena (Dor.; Mex.; Pan.; Por.; Pr.; AVP; IED; MAX); Verbena Azul (Brazil; Cuba; Nic.; Sp.; AUS; AVP; JTR; MPG; USN); Verbena Cimarrona (Cuba; JTR); Verbena Mansa (Dor.; AHL; MPG); Verbena Manza (Sp.; USN); Verbena Morada (Cuba; Dor.; Pan.; AHL; MPG); Verbene (Hon.; MPG); Verryvine (Wi.; JFM); Vervain (Bel.; BNA); Verveine (Dom.; Fr. Guiana; Haiti; AUS; KAB); Verveine a Queue Rat (Haiti; AVP); Verveine Bleue (Haiti; AVP); Verveine Commune (Fr.; AVP); Verveine Morado (Haiti; AVP); Verveine Officinale (Haiti; AVP); Verveine Queue de Rat (Creole; Guad.; Guy.; St. Bart; AVP; GMJ); Verveine Sauvage (Fr.; AVP); Verveine Violette (Haiti; AVP); Vervine (Ma.; JFM); Vèven (Creole; Haiti; Wi.; AUS); Vèven Blanc (Haiti; Trin.; AUS); Vèven Ble (Creole; Haiti; VOD); Vèven Ké Rat (Creole; Haiti; VOD); Vèvenn (Creole;

Haiti; VOD); Vèven Violèt (Creole; Haiti; AUS; VOD); Vorvine (Creole; Nic.; IED); Woe Vine (Bwi.; AUS; JFM); Wurra Weed (Vi.; AUS); Zapane de la Jamaïque (Guad.; Haiti; AVP); Zèb Sacré (Creole; Haiti; AUS; VOD). (Nscn).

### Activities:

Abortifacient (f; MPG; RAI); Analgesic (f1; AUS; MAX; MPG; RAI); Anesthetic (1; MPG); Antacid (1; RAI); Anthelmintic (f; MPB); Antiasthmatic (1; RAI); Antiedemic (f; MPB; VOD); Antihistaminic (1; RAI); Antiinflammatory (f1; AUS; RAI); Antioxidant (1; X15287069); Antiseptic (f1; AUS); Antispasmodic (f1; RAI; VOD); Antitumor (1; RAI); Antitussive (1; RAI); Antiulcer (1; RAI); Antiviral (1; RAI); Astringent (f; JFM); Bactericide (1; RAI); Bronchodilator (1; RAI); Cardiac (1; RAI); Cardioprotective (1; RAI); Cathartic (f; MPB); CNS-Depressant (f; RAI); Depurative (f; VOD); Diaphoretic (f; MPB; RAI); Digestive (f; MPB; RAI); Diuretic (f; JFM; RAI); Emetic (f; MPB); Emmenagogue (f; JFM; MAX; MPB; RAI); Expectorant (f; JFM); Febrifuge (f1; MAX; RAI); Gastroprotective (1; RAI); Hepatoprotective (1; RAI); Hypnotic (1; MPG); Hypotensive (f; RAI; VOD); Insecticide (1; AUS; X10363843); Lactagogue (f; RAI); Larvicide (1; RAI; X10363843); Laxative (f; IED; RAI); Mosquitocide (1; X10363843); Neuroprotective (1; RAI); NO-Inhibitor (1; X15287069); Pressor (1; WOI); Propepic (f; JFM); Purgative (f; IED); Secretolytic (1; RAI); Sedative (f1; AHL; AUS; MPG; RAI); Spasmogenic (1; MPG); Stimulant (f; RAR); Stomachic (f; DAW); Sudorific (f; RAR); Tonic (f; MPB; RAR); Toxic (1; WOI); Vasodilator (1; MPG; RAI); Vermifuge (f1; AUS; RAI; VOD); Vulnerary (f; RAI); Xanthine-Oxidase-Inhibitor (1; X15287069).

### Indications:

Acidity (f; RAI); Allergies (f; RAI); Alopecia (f; JFM); Amebiasis (f; RAI); Amenorrhea (f; JFM; MAX); Arthrosis (f; RAI); Asthma (f1; MPG; RAI); Boils (f; JFM; RAI); Bronchosis (f; MPG; RAI); Bruises (f; JFM; RAI); Cancer (f; MPG); Cardiopathy (f; KAB; RAI); Cataracts (f; KAB; WOI); Chest Colds (f; DAW; RAI); Childbirth (f; AUS; IED; VOD); Cholera (f; SKJ); Colds (f; RAI; VOD); Colic (f; JFM); Conjunctivitis (f; GMH); Constipation (f; IED); Coughs (f; MPG; RAI); Cramps (f; VOD); Debility (f; RAI); Dermatitis (f; JFM; VOD); Diabetes (f; RAI; VOD); Diarrhea (f1; AUS; RAI; RAR; VOD); Dropsy (f; DAW; SKJ); Dysentery (f; RAI; VOD); Dyslactea (f; JFM; RAI); Dysmenorrhea (f; JFM); Dysuria (f; JFM; RAI); Eczema (f; JFM; MPG; RAI); Edema (f; RAI; VOD); Enterosis (f1; RAI); Erysipelas (f; JFM; RAI); Fever (f1; IED; MAX; RAI); Flu (f; JFM; RAI); Gastrositis (f1; JFM; RAI; SKJ); Gonorrhoea (f; MAX); Headache (f; MPG); Hemorrhoids (f; RAI); Hepatitis (f; MPB; RAI; RAR); High Blood Pressure (f; RAI; VOD); Inflammation (f1; AUS); Insomnia (f; MPG); Jaundice (f; JFM); Malaria (f; JFM; MPG); Nausea (f; WOI); Nephrosis (f; MPG); Nervousness (f; JFM; RAI); Neurosis (f; MAX); Ophthalmia (f; KAB); Pain (f1; MAX; MPG; RAI); Parasites (f; IED; RAI; VOD); Pneumonia (f; JFM); Pregnancy (f; IED); Prickly Heat (f; JFM); Proctitis (f; DAW); Puerperium (f; DAW); Pulmonitis (f; IED); Rashes (f; JFM); Respiritis (f1; IED; RAI); Rheumatism (f; MPG); Rhinitis (f; DAW; RAI; SKJ); Sores (f; JFM; MPG); Splenomegaly (f; GMH); Splenitis (f; JLH); Sprains (f; RAI; WOI); Stomatitis (f; JFM); Swelling (f; MPG; VOD); Syphilis (f; MAX; MPB); Tapeworm (f; VOD); Tumors (f; JLH); VD (f; IED; MAX); Vitiligo (f; JFM; MPG); Worms (f; IED); Yellow Fever (f; JFM; MAX; RAI).

### Dosages:

FNFF = ! Leaves used as tea or as tea adulterant, exported to Europe as "Brazilian tea"; stem tops used as seasoning in Java. Central Americans make a Porter-like beverage from the leaves (FAC; TAN). Pemba natives use the plant like spinach (WOI). ½ cup leaf tea 2×/day (RAI); 2–3 ml leaf tincture 2×/day (RAI); 1–2 g capsule/tablet 2×/day (RAI).

- Argentinians make a shampoo (boiling 2 handful roots 20 min in 2 liter water) to wash the hair once a week to prevent falling hair (JFM).
- Bahamans take decoction of leaves with those of *Annona muricata* for prickly heat (JFM).

- Bahamans take leaf decoction or infusion as emetic or purgative (JFM).
- Brazilians use for acid reflux, allergy, amebiasis, bronchosis, chest ache, cold, constipation, debility, dermatosis, dysmenorrhea, eczema, edema, enterosis, erysipelas, fever, flu, gastrosis, hemorrhoids, hepatitis, high blood pressure, hoarseness, rheumatism, and stomachache (MPB; RAI).
- Cubans take depurative and refrigerant decoction for diarrhea and hepatosis, applying it topically for dermatitis and sores, using also for abortion, constipation, diabetes, dyslactea, dysmenorrhea, fever, high blood pressure, oliguria, and spasm (JFM; JTR; RAI).
- Curaçaoans take the leaf decoction to calm the nerves (JFM).
- Dominican Caribs use plant decoction as purgative after childbirth, and for colds (VOD).
- Dominicans use plant decoction for diabetes and high blood pressure (VOD).
- Gold Coast natives use juice from crushed leaves for cataracts and sores in the ear (KAB).
- Guyanans take the leaf tea 3×/day for high blood pressure (GMJ).
- Haitians take 1 spoonful fresh leaf juice for colic and dysentery (JFM).
- Haitians take the tea to calm the nerves, poulticing leaves on the forehead for headache and nervousness (AHL).
- Haitians use leaf decoction for convulsions and emotional distress, leaf juice for diarrhea and dysentery, parasites, tapeworms, and worms (VOD).
- Jamaicans take decoction with or without castor oil, for colds, painful menstruation, and as purge (JFM).
- Mexicans, viewing the decoction as emetic, emmenagogue, expectorant, sudorific, and tonic, take the plant for dysmenorrhea, edema, gonorrhea, malaria, pain, syphilis, and yellow fever (JFM; RAI).
- Nicaraguan Creoles use leaf decoction for childbirth, constipation, fever, parasites, pregnancy, respiratory-pulmonary disorders, VD, and worms (IED).
- Trinidadans take leaf decoction for cough, fever, flu, pneumonia, and urinary burning, the expressed juice for boils, dermatosis, eczema, rash, and vitiligo (JFM; RAI).
- West Indians poultice bruised leaves, with flour, on swellings of the spleen and tumors (GMJ).

#### Downsides:

Reportedly abortifacient, the plant might be avoided by pregnant women. And because of hypotensive activity, hypotensives might prefer to avoid or monitor use and reaction. Taylor cautions that *V. cayennensis* but not *V. stachytarpheta* contains a small amount of salicylic acid and that those sensitive to aspirin might wish to monitor (RAI). I believe all plants contain salicylic acid. Should we avoid all plants or just those high in salicylic acid? We urge some well-endowed philanthropist to sponsor a much-needed massive project to analyze most major foods and medicinal plants and spices, and quantify the data into a massive Microsoft database that would tell us which foods, herbs, and spices are best for whom. Then we could avoid those foods highest in the phytochemicals we don't want and/or seek those highest in the phytochemicals we do need. I suspect my body knows, better than my allopath knows, which of the hundreds of evolutionarily familiar phytochemicals my body wants, and which it doesn't want. I even believe that, homeostatically, my body grabs those it needs, and excludes to a degree those it doesn't need. All this without my spending my average six minutes and sixty bucks with my average allopathic physician to ask if celery is right for me. He/she probably won't know the answer. My body does! As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

#### Extracts:

Leaf extracts inhibit respiratory burst of rat macrophages (X15287069). Plant extract mosquitoicidal for *Aedes aegypti* (X10363843).

**PANAMA (*Sterculia apetala* (Jacq.) H. Karst.) ++****STERCULIACEAE****Illustrations:**

fig 157, p 341 (L&W)

**Synonyms:**

*Helicteres apetala* Jacq. (basionym); *Sterculia carthaginensis* Cav.; *S. chicha* A. St.-Hil.; fide (USN).

**Notes:**

This is a sneaky way to commemorate my devotion to Panama, where I arrived a taxonomist, and left an ethnobotanist, before I knew the word.

**Common Names:**

Anacagüita (Cuba; Pr.; AVP; JTR); Anacagüitas (Cuba; Pr.; JTR); Anacagüitas Esterculia (Cuba; Pr.; JTR); Anacahuita (Dor.; JTR); Bellota (Guat.; Mex.; AVP; JTR; USN); Cacaguilla (Ven.; L&W); Cacahuito (Ma.; JFM); Cacaíto (Ven.; L&W); Cacauillo (Ma.; JFM); Cacauito (Ma.; JFM); Camajón (Ma.; JFM); Camajón Duro (Col.; AVP; JTR); Camajorú (Col.; AVP); Camajurú (Col.; JFM); Camarca (Cuba; AVP); Camaruca (Cuba; Guy.; JTR; PCS); Camjurú (Col.; AVP); Camoruco (Ven.; AVP); Capera (Ma.; JFM); Castañas (Mex.; JTR); Castaño (Ca.; Guat.; Hon.; Mex.; AVP; JTR); Castaño e Costa (Ma.; JFM); Chicha (Cuba; AVP); Chichá (Sp.; USN); Coco de Monte (Ecu.; AVP); Comoruco (Sp.; USN); Comotsontoqui (Ashaninka; Peru; EGG); Coolie Pistache (Ma.; JFM); Exixa (Brazil; AVP); Huarmi Caspi (Peru; EGG); Huayru Caspi (Peru; EGG); Husyracaspi (Ma.; JFM); Huyra Caspi (Peru; SOU); Indian Nut (Eng.; AVP); Kuppa (Ma.; JFM); Kupu (Kuna; Pan.; IED); Kutsapo (Peru; EGG; SOU); Majao (Ma.; JFM); Mano de Leon (Ma.; JFM); Panamá (Cr.; Nic.; JTR); Panama Nut (Ma.; JFM); Panama Tree (Wi.; JTR; USN); Pata de Danta (Ven.; AVP); Pepetaca (Ma.; JFM); Piñón (Col.; IED); Pistache des Indes (Haiti; AVP); Sahote (Peru; SOU); Sapopte Silvestre (Peru; EGG); Sterculier de Panama (Fr.; USN); Sunsún (Ven.; L&W); Tepetaca (Ma.; JFM); Tuntun (Ma.; JFM).

**Activities:**

Emollient (f; JTR); Pectoral (f; JTR; PCS); Stomachic (f; JFM).

**Indications:**

Alopecia (f; IED); Arthritis (f; JTR); Asthma (f; JTR); Catarrh (f; JTR; PCS); Malaria (f; IED); Pulmonosis (f; PCS); Spirosiosis (f; PCS); Rheumatism (f; JTR).

**Dosages:**

FNFF = ! Toasted seeds taste like peanuts (L&W).

- Cubans use flowers as pectoral in asthma (JTR).
- Guatemalans take bark decoction for malaria (JFM).
- Mexicans use as pectoral in catarrh (JTR; PCS).
- Panamanians suggest the bark for malaria, the leaves for preventing hair loss (IED).
- Puerto Ricans take bark infusion as stomachic (JFM).
- Venezuelans use the plant for rheumatism (JTR).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed five titles alluding to toxicity of this species.

**STEVIA (*Stevia rebaudiana* (Bertoni) Bertoni) ++****ASTERACEAE****Illustrations:**

p 697 (CR2)

**Synonyms:***Eupatorium rebaudianum* Bertoni; fide (POR; USN).**Common Names:**

Ca-a-e (Par.); Candyleaf (Eng.; AH2); Erva-Adocicada (Brazil; USN); Erva-Doce (Brazil; USN); Estévia (Brazil; USN); Folha-Doce (Brazil; USN); Hierba Dulce (Par.; Sp.; MPG); Hierba Dulce de Paraguay (Sp.); Ka'a Hee (Par.; MPG); Paraguayan Sweet Herb (Eng.; AH2); Stevia (Eng.; Ger.; Scn.; Sp.; AH2; USN); Stévia (Fr.; Por.; USN); Sweetleaf (Eng.; AH2). (American entries diacritically prepared).

**Activities:**

Anticariogenic (f; APA; MPG); Antidiabetic (1; APA); Antiedemic (1; HH2); Antifertility (1; APA); Antigluconeogenic (1; AMA); Antihyperglycemic (1; PHM9:9); Antihypertensive (12; AMA; X11939668; X14693305); Antiinflammatory (1; HH2; X12419967); Antiseptic (f1; APA; MPG); Antitumor-Promoter (1; X12419967); Bactericide (f; APA; MPG); Calcium-Blocker (1; AMA); Candidicide (1; MPG); Chemopreventive (1; X12419967); Contraceptive (f; APA; HHB; MPG; PH2); Diuretic (1; ADK; AMA; APA; PH2); Glucagonostatic (1; PHM9:9); Glutamate-Dehydrogenase-Inhibitor (1; ADK); Hypoglycemic (1; ADK; APA; MPG; PH2; SYN); Hypotensive (1; ADK; APA; HH2; MPG; PH2; X14693305); Insulinotropic (1; PHM9:9; X15375798); Mutagenic (1; AMA; APA); NADH-Oxidase-Inhibitor (1; ADK); Natriuretic (1; ADK; PH2); Nephrotoxic (1; AMA); Ornithine-Decarboxylase-Inhibitor (1; ADK); Oxidative-Phosphorylation-Inhibitor (1; ADK); Succinate-Dehydrogenase-Inhibitor (1; ADK); Succinate-Oxygenase-Inhibitor (1; ADK); Sweetener (f; APA); Vasodilator (1; ADK; AMA; APA; X14998715).

**Indications:**

Bacteria (f; APA; MPG); Cancer (1; X12419967); *Candida* (1; MPG); Cardiopathy (1; X14998715); Caries (f; ADK); Diabetes (1; ADK; APA; HHB; MPG; PHM9:9; PH2; SYN); Edema (1; HH2); High Blood Pressure (12; ADK; AMA; APA; HH2; MPG; PH2; X11939668; X14693305; X14998715); Hyperglycemia (1; AMA; MPG; PHM9:9); Hypertony (f; HH2); Infection (f1; APA; MPG); Inflammation (1; HH2; X12419967); Obesity (f; ADK); Odontosis (f; ADK); Periodontosis (f; ADK); Proteus (1; MPG); *Pseudomonas* (1; MPG); Syndrome X (1; SYN; X14998715).

**Dosages:**

FNFF = !!! Powdered leaves or stevioside now internationally available as non-nutritive sweetener (JAD). 1–2 capsules StX (57 mg extract 85% steviosides) with beverage (NH).

**Downsides:**

Class 1 (AHP). No health hazards known with proper use as sweetener (PH2). Suggested that one byproduct of stevia metabolism may be mutagenic (APA); steviol, a metabolite of stevioside “has been found to be highly mutagenic in several *in vitro* studies” (AMA3:13). Insufficient human data exist regarding safety in pregnancy and lactation, hence “pregnant and lactating patients should avoid stevia” (AMA3:13). Limited data suggest it may be contraceptive (APA). But the early contraceptive studies have not been reproduced; contraceptive activity questioned (ADK). As of July 2007, the FDA Poisonous Plant Database listed six titles alluding to toxicity of this species.



**Extracts:**

Stevioside is “about one hundred times sweeter than sucrose at a 10% concentration” (APA). Liquid leaf extracts significantly decrease plasma glucose levels after overnight fasting in 16 healthy adults (APA). Hydroethanolic extracts (50% stevioside with LD50 = 3,400 mg/kg iprat); aqueous extracts (50% stevioside with LD50 = 17,000 mg/kg).

**CUMASEBA (*Swartzia polyphylla* DC.) +  
FABACEAE**

**Synonyms:**

*Swartzia acuminata*; *S. opacifolia*; *S. platygyne*; *Tounatea acuminata*; *Tounatea oblonga*; *Tunatea acuminata*; fide (RA2).

**Common Names:**

Añushi Remo Caspi (Peru; Sp.; EGG; RA2; RAR); Arabá (Sa.; RA2); Cumaceba (Peru; EGG); Cumaseba (Peru; DAV; EGG); Jabelona (Sa.; RA2); Marin Comatsehue (Sa.; RA2); Paracutaca (Sa.; RA2); Pitaica (Sa.; RA2); Remo Caspi (Peru; Sp.; RAR).

**Activities:**

Analgesic (1; RA2); Anticariogenic (1; X1477911); Antiinflammatory (1; RA2); Antimycobacterial (1; X16462085); Antirheumatic (f; EGG); Antiseptic (f; RA2); Antitumor (1; RA2); Aphrodisiac (f; RA2); Bactericide (1; RA2); Candidicide (1; RA2); Collyrium (f; RA2); Estrogenic (1; RA2); Fungicide (1; X16462085); Gram(+)-cide (1; RA2); Larvicide (1; X16462085); Mycobactericide (1; X16462085); PKC-Inhibitor (1; RA2); SERM (f; RA2); Tonic (f; RA2); Vulnerary (f; DAV).

**Indications:**

Arthritis (f; EGG; RA2); Bacteria (1; RA2; X1477911); Cancer (1; RA2); Cancer, breast (1; RA2); Cancer, colon (1; RA2); Cancer, prostate (1; RA2); Cancer, stomach (1; RA2); *Candida* (1; RA2); Caries (1; X1477911); Childbirth (f; DAV; RA2); Colds (f; RA2); Conjunctivitis (f; RA2); Dislocation (f; DAV; RA2); Fatigue (f; RA2); Flu (f; RA2); Fracture (f; RA2); Frigidity (f; RA2); Fungus (1; X16462085); Gastrosis (1; RA2); Gingivitis (1; RA2); *Helicobacter* (1; RA2); Impotence (f; RA2); Infection (1; RA2; X1477911; X16462085); Inflammation (f1; RA2); Laziness (f; RA2); Malaria (f; RA2); *Mycobacterium* (1; RA2; X16462085); Mycosis (1; X16462085); Myosis (f; RA2); Ophthalmia (f; RA2); Osteosis (f; RA2); Pain (f1; RA2); Puerperium (f; EGG; RA2); Respirosis (f; RA2); Rheumatism (f; EGG; RA2); *Streptococcus* (1; X1477911); Tuberculosis (1; RA2); Tumors (1; RA2); Ulcers (1; RA2); Wounds (f; DAV); Yeast (1; RA2).

**Dosages:**

FNFF = ? 1 cup bark decoction 2×/day (RA2); 2–3 ml bark tincture 2×/day (RA2).

- Peruvians consider antiseptic, aphrodisiac, and tonic, using for bad eyesight, bone fractures, childbirth, colds, dislocations, fatigue, female ails, flu, fungal infections, laziness, optic nerve injuries, rheumatism, and yeast infections (RA2).
- Shipibo-Conibo use bark as antiseptic; the resin is dropped in the eyes for eye infections, failing eyesight, and optic nerve injuries (RA2).
- Surinamese use for malaria (RA2).

**Downsides:**

None reported (RA2).

**Extracts:**

Ethanolic bark extract shows antifungal, antimycobacterial, and larvicidal activity *in vitro* (X16462085). Methanolic heartwood extract exhibited antibacterial activity against cariogenic bacteria, the mutans *Streptococci* (X1477911).

**HONDURAS MAHOGANY (*Swietenia macrophylla* King) +****MELIACEAE****Illustrations:**

fig 111 (L&W); fig 215 (DAV)

**Synonyms:**

*Swietenia belizensis* Lundell; *S. candollei* Pittier; *S. krukovii* Gleason & Panshin; *S. tessmanii* Harms; (fide L&W; USN).

**Common Names:**

Acahuano (Peru; EGG; RAR); Acajou Amérique (Fr.; Haiti; JFM; L&W); Acajou du Honduras (Guad.; JFM; L&W); Aguan (Ma.; JFM); Amadsohuia (Culina; Peru; EGG; RAR); Bara Mahagoni (Ben.; WOI); Baywood (Ma.; JFM); Big-Leaf Mahogany (Eng.; Ocn.; AH2; JFM); Brazilian Mahogany (Eng.; L&W); British Honduras Mahogany (Eng.; L&W); Broadleaf Mahogany (Eng.; Vi.; L&W); Broken Ridge Mahogany (Bel.; BNA); Caeba (Bol.; DLZ); Caoba (Ocn.; Sp.; AH2); Caoba Americana (Col.; Sp.; JFM; L&W); Caoba Centroamericana (Sp.; TTS); Caoba de Honduras (Cuba; Pr.; Sp.; L&W; RyM); Caoba de Jurado (Col.; IED); Caoba Hondureña (Sp.; JFM; L&W); Caoba Venezolana (Sp.; Ven.; L&W); Cedro Carmesi (Col.; IED; JFM); Cedro Cebollo (Col.; IED; JFM); Cedro Espinoso (Col.; IED; JFM); Central American Mahogany (Eng.; Vi.; JFM; L&W); Chacalte (Guat.; L&W); Chacatlé (Ma.; JFM); Chiculte (Bel.; Ma.; BNA; JFM; TTS); Cóbano (Ma.; JFM; TTS); Colombian Mahogany (Eng.; WOI); Flor de Venadillo (Ma.; JFM); Gateado (Ma.; JFM; TTS); Gaúbana (Garifuna; IED); Granadillo (Col.; IED; JFM); Hishca Nanti (Amahuaca; Peru; EGG; RAR); Hishtininti (Peru; Shipibo/Conibo; EGG); Honduras Mahogany (Eng.; Scn.; AH2; JFM; L&W); Igüira Caaogui (Bol.; Chiriguano; DLZ); Mahagoni (Fr.; Ger.; AUS); Mahagony (Mal.; WOI); Mahogani (Peru; SOU); Mahogany Honduras (Guad.; Mart.; L&W); Mahonie (Dutch; AUS); Majaine (Ma.; JFM); Mara (Bol.; Ma.; DLZ; TTS); Mexican Mahogany (Eng.; WOI); Mogano (It.; AUS); Mogno (Brazil; Ma.; Por.; AUS; RAR; TTS); Mogogano (It.; AUS); Mo-Ua (Ma.; JFM); O'momech (Amuesha; Yanasha; EGG; RAR); Oruro (Ma.; TTS); Pashish (Amuesha; Peru; Yanasha; EGG; SOU); Peruvian Mahogany (Eng.; L&W); Rosadillo (Ma.; TTS); Sutz'uch (Bel.; BNA); Tuxw (Ticuna; SOU); Venadillo (Ma.; TTS); Venezuelan Mahogany (Eng.; L&W); Zopilote (Ma.; TTS).

**Activities:**

Antifeedant (1; X10579863); Astringent (f; IHB); Contraceptive (f; EGG); Depurative (f; DLZ); Diuretic (f; DLZ); Febrifuge (f; IED; IHB; JFM); Hypotensive (f; JFM); Propecic (f; JFM); Tonic (f; IHB).

**Indications:**

Alopecia (f; JFM); Arthrosis (f; DLZ); Catarrh (f; DLZ); Dropsy (f; DLZ); Enterosis (f; EGG); Fever (f; IED; IHB; JFM); Hemorrhoids (f; EGG); High Blood Pressure (f; JFM); *Leishmania* (f; EGG); Malaria (1; X10687870); Neurosis (f; JFM); Pulmonosis (f; JFM); Rheumatism (f; DLZ); VD (f; EGG); Water Retention (f; DLZ).

**Dosages:**

FNFF = ?

- Guatemala highland Indians take bitter bark decoction for fever (JFM).
- Malaysians eat seeds to lower blood pressure (JFM).
- Mexicans apply scorched seeds in grease to bald spots hoping to restore hair (JFM).
- Mexicans take seed decoction for nervous and pulmonary complaints (JFM).
- Nicaraguan Garifuna drink the bark decoction for fever (IED).

- Peruvians suggest concentrated bark decoction for hemorrhoids and VD, for 8 menstrual days, as contraceptive (EGG).
- Peruvians suggest concentrated bark decoction with cedro, chuchuhuasi, icoja, and ubos, for leishmaniasis (EGG).
- Peruvians suggest the bark decoction for intestinal ails (EGG).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed six titles alluding to toxicity of this species.

## WEST INDIAN MAHOGANY (*Swietenia mahagoni* (L.) Jacq.) + MELIACEAE

**Illustrations:**

fig 112 (L&W); p 728 (TTS)

**Synonyms:**

*Cedrela mahagoni* L. (basonym); fide (USN).

**Notes:**

Commenting accumulately but caustically over the many common names, Austin (2004) notes that *S. mahagoni* originally ranged from southern Florida to the Bahamas, Cuba, Jamaica, and Hispaniola. Then the timber interests got all species going in every direction. It was introduced to Puerto Rico and the Virgin Islands, Bermuda, the Lesser Antilles, Trinidad and Tobago, and Curaçao, and elsewhere. Its names became mixed with those of *S. macrophylla*, which was native to much of the area where *S. mahagoni* was introduced. Austin then proceeds to speak generically rather than specifically of the common names. Readers seeking even more common names are referred to his excellent and interesting book. I like to think of *S. macrophylla* as “big-leaf mahogany” and *S. mahagoni* as “little leaf mahogany,” but alas, McGuffin et al. (1997) did not deem to give this one a standardized common name, while calling the big leafed “Honduras mahogany.” Both have been planted by now in almost all tropical Latin American regions as premier timber species. And I suppose I’ll go to my grave mixing the spellings mahagoni (right) and mahogani (wrong) as the specific epithet and mahogany (right) and mahagony (wrong) as the common name. Very confusing.

**Common Names:**

Acagiú (It.; AVP); Acajou (Haiti; AVP; L&W); Acajou à Bois (Ma.; JFM); Acajou à Muebles (Fwi.; AUS); Acajou à Planches (Haiti; AHL); Acajou d’Amérique (Fr.; USN); Acajou de Cuba (Cuba; AUS); Acajou de Haiti (Fwi.; AUS); Acajou de Saint Domingue (Guad.; Haiti; AHL; L&W); Acajou des Antilles (Fwi.; AUS); Acajou Mahogani (Guad.; AUS); Acajou Ronceux (Haiti; AUS); Acajú (Por.; AVP); Acayu (Ma.; JFM); Akajou (Creole; Haiti; VOD); Albero di Acajou (Dwi.; AUS); American Mahogany (Eng.; AUS); Antillen Mahogani (Wi.; AUS); Barbados Mahogany (Ma.; JFM); Bwa Kajou (Creole; Haiti; VOD); Cajou (Haiti; AVP); Cajou à Planches (Haiti; AHL); Caoba (Cuba; Dor.; Mex.; Pr.; Sp.; Taino; AHL; AUS; AVP; L&W; RyM); Caoba Americana (Ma.; Pr.; AUS); Caoba Antillana (Ma.; JFM); Caoba de Cuba (Cuba; AUS); Caoba de Santo Domingo (Pr.; Sp.; AUS; L&W); Caoba Dominicana (Pr.; AVP); Caoban (Cuba; Dor. Sp.; AVP); Caobano (Ma.; JFM); Caobilla (Cuba; AUS; JFM; L&W); Caobo (Ma.; JFM); Caobo de las Antilles (Ma.; JFM); Caobo de Santo Domingo (Ma.; JFM); Cedre des Antilles (Ma.; JFM); Cedro Macho (Ma.; JFM); Chagaret Kabouly (Arab.; AVP); Cheria-mahogany (Mal.; WOI); Ciminukku (Tam.; WOI); Cóbano (Mex.; AUS; AVP); Cuba Mahonie (Dwi.; AUS); Cuban Mahogany (Eng.; USN; WOI); Curly Mahogany (Jam.; AUS); Domini-

can Mahogany (Eng.; L&W); Echtes Kuban Mahagoni (Cuba; AUS); Echtes Mahagoni (Cuba; AUS); Flor de Venadillo (Mex.; AVP); Florida Mahogany (Eng.; AUS); Gateado (Mex.; AVP); Honduran Mahogany (Fla.; AUS); Jamaica Mahogany (Eng.; Jam.; AUS; WOI); Kajou (Creole; Haiti; VOD); Kajou Aplanch (Creole; Haiti; VOD); Kajou Peyi (Creole; Haiti; VOD); Kajou Sen Domeng (Creole; Guad.; Haiti; AUS; VOD); Kajou Ti Fèy (Creole; Haiti; VOD); Kuba Mahogany (Cuba; AUS); Madeira (Ma.; JFM; TTS); Madiera (Bah.; L&W); Mahaagonichekka (Tel.; WOI); Mahaagonichettu (Tel.; WOI); Mahagni (Ben.; WOI); Mahagoni (Fr.; Ger.; Mal.; AUS; AVP; WOI); Mahagony (Tam.; WOI); Mahogany (Eng.; Fr.; Vi.; L&W; USN; VOD); Mahogany du Pays (Guad.; AUS; JFM; L&W); Mahogany Petite Feuilles (Guad.; Mart.; AUS; L&W); Mahok (Dutch; Dwi.; AVP; JFM; L&W); Mahoni (Dutch; Sur.; AUS; AVP; L&W); Mahonia (Ma.; JFM); Mahonijboom (Dwi.; AUS); Medura Redwood (Eng.; AUS); Mexican Mahogany (Eng.; AUS); Mogano (It.; AUS; AVP); Mogano Americano (Dwi.; AUS); Mogano di Cuba (Dwi.; AUS); Mogno (Brazil; Por.; AUS; USN); Mogno-de-Folhas-Pequenas (Brazil; USN); Mogno-do-Caribe (Brazil; USN); Mogno-Verdadeiro (Brazil; USN); Mogogano (It.; AUS; AVP); Palo de Çaoba (Pr.; AUS); Puerto Rico Mahogany (Eng.; JFM; WOI); Pyè Kajou (Creole; Haiti; VOD); Redwood (Bah.; AUS); Sabica (Bah.; AUS); San Domingo Mahogany (Eng.; AUS); Small-Leaf Mahogany (Eng.; Vi.; AUS; L&W); Spanish Mahogany (Eng.; Tob.; Trin.; JFM; L&W; USN; WOI); True Mahogany (Eng.; AUS); West Indian Mahogany (Eng.; L&W; USN; VOD); West Indies Mahogany (Eng.; JFM; L&W); Wild Mahogany (Wi.; AUS); Wohlriechende Cedrela (Ger.; AVP); Zopilote (Mex.; AUS); Zopilo Zontecoma Cuahuil (Mex.; Náhuatl; AUS); Zopitole (Mex.; AVP). (Nscn).

#### Activities:

Abortifacient (f; AUS; JFM; VOD); Antiaggregant (1; AUS; X2062958); Antimalarial (1; AUS); AntiPAF (1; X2062958); Antiproliferant (1; AUS); Antiseptic (f1; AHL; VOD; X12946723); Antithrombic (1; X2062958); Aphrodisiac (f; JFM; VOD); Astringent (f; AHL; IHB; JFM; VOD); Bactericide (1; X12946723); Emmenagogue (f; VOD); Febrifuge (f; IHB; JFM); Fungicide (1; X12946723); Hemostat (f; AUS); Insecticide (1; AUS); Orexigenic (f; AUS; JFM; VOD); PAF-Inhibitor (1; X2062958); Purgative (f; AHL); Tonic (f; AHL; IHB; JFM; VOD); Vulnerary (f; AUS).

#### Indications:

Amenorrhea (f; VOD); Anemia (f; AUS; VOD); Anorexia (f; AUS; JFM; VOD); Bacteria (1; X12946723); Bleeding (f; AUS; VOD); Cardiopathy (1; AUS); Catarrh (f; JFM); Chest (f; AUS; VOD); Colds (f; JFM); Convulsions (f; JFM); Diarrhea (f; AHL; AUS; JFM; VOD); Dysentery (f; AHL; AUS; VOD); Fever (f; AUS; IHB; JFM; X12946723); Fungus (1; X12946723); Gonorrhoea (f; JFM); Hemorrhage (f; VOD); Impotence (f; JFM; VOD); Infection (f1; AHL; VOD; X12946723); Malaria (f; AUS; VOD); Mycosis (1; X12946723); Neurosis (f; AUS; VOD); Pain (f; AUS; VOD); Tetanus (f; JFM); Thrombosis (1; X2062958); Toothache (f; AUS; VOD); VD (f; JFM); Wounds (f; AUS).

#### Dosages:

FNFF = ?

- Argentinians take sweetened bark tea as febrifuge and orexigenic (JFM).
- Bahamans take bark or root infusion as tonic (JFM).
- Caicos Islanders take bark or root infusion, with wood of *Zanthoxylum*, for gonorrhoea (JFM).
- Cubans apply juice from young shoots to stop bleeding and heal wounds (AUS).
- Cubans take the astringent bark decoction for catarrh, convulsions, and tetanus (JFM).
- Haitians apply bark infusion topically as antiseptic and astringent, taking the bark and leaf tea for diarrhea, dysentery, and hemorrhage, and large doses of bark decoction as abortifacient, smaller doses for toothache (VOD).

- Haitians steep bark in rum 3–4 days as aphrodisiac tonic (VOD).
- Haitians take leaf decoction with salt for nervous disorders (VOD).
- Haitians take seed tea for chest pain (VOD).
- Haitians use alcoholic bark, leaf, and root maceration for malaria, the alcoholic bark tincture for anemia, anorexia, and debility (VOD).
- Haitians use aqueous bark maceration or decoction, with or without salt, for amenorrhea, anemia, diarrhea, dysentery, and fever (VOD).
- Jamaicans take the bark decoction for diarrhea and fever (JFM).

**Downsides:**

Too much of the decoction may induce abortion and/or uterine hemorrhage (JFM). As of July 2007, the FDA Poisonous Plant Database listed 12 titles alluding to toxicity of this species.

**Extracts:**

Extracts show strong antibacterial and antifungal activity (X12946723). Ether extract from the seeds inhibited PAF-induced platelet aggregation (X2062958).

## NODE WEED (*Synedrella nodiflora* (L.) Gaertn.) ++

### ASTERACEAE

**Synonyms:**

*Verbesina nodiflora* L. (basonym); fide (USN).

**Common Names:**

Akara Aje (Nig.; UPW); Babadotan Lalaki (Sunda; IHB); Bruwan (Java; IHB); Cerbatana (Sp.; USN); Cerbetana (Sp.; JFM); Espinillo (Ma.; JFM); Fatten Barrow (Ma.; JFM); Feuilles Dépôt (Haiti; AVP); Gégétang (Malaya; IHB); Gétang-Gétang (Malaya; IHB); Herbe à Feu (Guad.; AVP); Jotang Kuda (Sunda; IHB); Jotang Lalaki (Sunda; IHB); Jukuk Gènjrèng (Sunda; IHB); Ketumbit Padang (Malaya; IHB); Krasuk (Java; IHB); Lègétan (Java; IHB); Mudiyendra Pacha (Mal.; WOI); Ngulu Gbe (Sierra Leone; UPW); Node Weed (Creole; Nic.; EB50:71); Porter Bush (Ma.; JFM); Rumput Babi (Malaya; IHB); Salamani (Malaya; IHB); Sarbatana (Pr.; ABP); Sar-unèn (Java; IHB); Serbatana (Pr.; ABP); *Synedrella* (Eng.; USN); Treinta Nueces (Ma.; JFM); Tutummerika (Ghana; UPW); Tutup Bumi Paya (Malaya; IHB); Waka (Ivo.; UPW).

**Activities:**

Analgesic (f; AHL; IHB); Antiedemic (f1; DAW; X9121169); Antiinflammatory (1; X9121169); Depurative (f; AHL); Hemostat (f; EB50:71); Insecticide (1; X11278061); Laxative (f; DAW); Refrigerant (f; JFM); Vulnerary (f; AHL; EB50:71).

**Indications:**

Arthrosis (f; IHB); Bleeding (f; EB50:71); Childbirth (f; IHB); Colds (f; JFM); Constipation (f; DAW); Coughs (f; UPW); Dermatitis (f; AHL); Edema (f1; DAW; X9121169); Diarrhea (f; EB50:71); Earache (f; IHB); Eruption (f; AHL); Fever (f; JFM); Gingivitis (f; UPW); Headache (f; IHB); Inflammation (1; X9121169); Leprosy (f; DAW); Pain (f; AHL; IHB); Pulmonosis (f; EB50:71); Respirosis (f; EB50:71); Rheumatism (f; AHL; IHB); Smallpox (f; UPW); Sores (f; AHL); Stomachache (f; AHL; IHB); Stomatosis (f; UPW); Swelling (f; DAW); Wounds (f; AHL; EB50:71).

**Dosages:**

FNFF = ! Young leaves said to be eaten (IHB; WOI).

- Asian Indians apply the plant juice for earache (WOI).
- Barbadians take as refrigerant or febrifuge, and for colds (JFM).

- Congolese use leaf juice for gingivitis and stomatitis (UPW).
- Ghanaians use leaf tea as laxative (UPW).
- Ghanaians use the plant to keep insects out of stored grain (X11278061).
- Haitians use as depurative and vulnerary, for dermatoses, eruptions, rheumatism, stomachache, and sores (AHL).
- Indonesians apply the leaf sap in stomachache (UPW).
- Ivory Coastals poultice plant onto edema and leprosy (UPW).
- Malaysians poultice onto sore legs and on the forehead for headache following confinement (= ? childbirth) (IHB).
- Nicaraguans take leaf decoction orally for bleeding, cuts, diarrhea, and respiratory ails (EB50:71).
- Tanganyikans take pounded root decoction for cough (UPW).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

At 40–80 mg/kg, extracts antiinflammatory action was as effective as (=) phenylbutazone (80 mg/kg) and indomethacin (3 mg/kg) (X9121169). Plants seem harmless with rats during one feeding study (X11278061).

**JAMBOLAN (*Syzygium cumini* (L.) Skeels) ++**  
MYRTACEAE

**Illustrations:**

p 447 (NPM); p 871 (HH2); pl 218 (DAV); pl 424 (KAB)

**Synonyms:**

*Eugenia caryophyllifolia* Lamarck.; *E. cumini* (L.) Druce; *E. jambolana* Lam.; *Myrtus cumini* (L.); *Syzygium jambolanum* (Lam.) DC.

**Common Names:**

Aceituno Dulce (Peru; Sp.; DAV; EGG); Arugadam (Tam.; KAB); Bahojaman (Hindi; KAB); Bhotojamo (Oriya; KAB); Birkod (San.; KAB); Blackberry (Eng.; NPM); Black Plum Tree (Eng.; HH2; NPM); Brahaspati (Sanskrit; KAB); Chakakau (Magahi; KAB); Chambu (Garo;

KAB); Chotajam (Ben.; KAB); Chuajamo (Oriya; KAB); Chudukbad (San.; KAB); Dinkikuda (Naguri; KAB); Dinkikudadaru (Mun.; KAB); Djambalang (Dutch; Malaya; EFS; KAB); Duat (Pam.; Tag.; Vis.; KAB); Duhat (Pam.; Tag.; Vis.; KAB); Duwet (Java; EFS; IHB); Dzam Bu (Tibet; NPM); Gandijambu (Tamang; NPM); Guayabo Pesgua (Sp.; USN); Hamtakuda (Hasada; KAB); Indian Allspice (Eng.; HH2); Jabu (Tamang; NPM); Jam (Ben.; Hindi; Malaya; Mar.; Tharu; KAB; NPM); Jaman (Eng.; Hindi; Kum.; Mar.; Urdu; KAB; USN); Jambavan (Sanskrit; KAB); Jambelan (Malaya; KAB); Jambelang (Malaya; IHB); Jambhul (Bom.; KAB); Jambalang (Sunda; IHB); Jamboisie (Guad.; Haiti; Mart.; AVP); Jambol (Fr.; AVP; KAB); Jambolan (Eng.; Scn.; AH2); Jambolán (Cuba; Eng.; Sp.; AVP; EGG; RAR; USN); Jambolanapflaume (Ger.; HH2; USN); Jambolanier (Fr.; USN); Jambolan Plum (Eng.; NPM); Jambolboom (Dutch; EFS); Jambleira (Por.; KAB); Jambolín (Pr.; AVP); Jamboloeira (Por.; KAB); Jambosier (Fr.; EFS); Jamboul (Fr.; EFS); Jamboulbaum (Ger.; EFS); Jambu (Ayu.; Ben.; Sanskrit; AH2; EFS; KAB); Jambudi (Guj.; KAB); Jambudo (Ben.; KAB); Jambul (Ben.; Den.; Dutch; Mar.; EFS; HH2; KAB); Jambula (Sanskrit; KAB); Jambun (Uraon; KAB); Jambuneral (Kan.; KAB); Jambura (Guj.; KAB); Jambuvu (Tel.; KAB); Jamélongue (Fr.; HH2; USN); Jamin (India; KAB); Jamli (Guj.; KAB); Jamlongue (Fr.; KAB); Jaminphalani (Guj.; KAB); Jamo (Oiya; KAB); Jamu (Assam; KAB); Jamul (India; KAB); Jamun (Bhojpuri; Hindi; Kolami; Mooshar; Nepal; Newari; Tamang; KAB; NPM); Jamuna (Gurung; Nepal; Rai; Sunwar; Tamang; NPM); Jamuno (Danuwar; NPM); Jamunu (Magar; NPM); Java Plum (Eng.; Ocn.; AH2; CR2; NPM; USN); Jiwat (Malaya; IHB; KAB); Jumbul (Ocn.; AH2); Juwat-Juwat (Malaya; IHB); Juwet (Java; IHB); Juwet Manting (Java; IHB); Juwet Sapi (Java; IHB); Kakajambu (Sanskrit; KAB); Kalajam (Ben.; Nepal; KAB); Kalajaman (Hindi; KAB); Kalo Jamun (Nepal; NPM); Korjam (Michi; KAB); Kottainagam (Tam.; KAB); Kottainaval (Tam.; KAB); Kud (San.; KAB); Kuda (Kol.; KAB); Kudu (San.; KAB); Kutijamo (Oriya; KAB); Li Shi (Tibet; NPM); Lohodru (Khond; KAB); Lomboi (Tag.; KAB); Lumboi (Ilo.; Pam.; Tag.; Vis.; KAB); Madan (Sin.; KAB); Mahadan (Sin.; KAB); Mahaskandha (Sanskrit; KAB); Makalimse (Limbu; NPM); Malabar Plum (Eng.; NPM); Manzana Malaya (Sp.; RAR); Meghamodini (Sanskrit; KAB); Meghavarana (Sanskrit; KAB); Naga (Mal.; KAB); Nagai (Tam.; KAB); Naindi (Gond.; KAB); Nankojamburo (Lambadi; KAB); Naval (Mal.; Tam.; KAB); Nayinerale (Kan.; KAB); Nerale (Badaga; Kan.; Mysore; KAB); Neralu (Badaga; Kab.; KAB); Neredam (Tam.; KAB); Neredu (Reddi; Saora; Tel.; KAB); Nerilu (Kab.; KAB); Nerolu (Tul; KAB); Nilaphala (Sanskrit; KAB); Nilaprara (Sanskrit; EFS); Pairman (Hindi; KAB); Peddaneredu (Tel.; KAB); Perinnaval (Mal.; KAB); Pesjua Extranjera (Ven.; AVP); Phalanda (Hindi; KAB); Phalenda (Kum.; Urdu; KAB); Phalinda (Garwhal; KAB); Phandil (Majhi; NPM); Phanir (Nepal; NPM); Phanrid (Chepang; NPM); Pharenda (Hindi; KAB); Phaunda (Hindi; KAB); Phoberkung (Lepcha; KAB); Pitanga (Eng.; NPM); Pitlemsi (Rai; NPM); Pitumsi (Rai; NPM); Pring Bai (Ic.; KAB); Pring das Krebey (Ic.; KAB); Prugna di Malabar (It.; EFS); Rajale (Mar.; KAB); Rajambu (Guj.; KAB); Rajaphala (Sanskrit; EFS); Rajasha (Sanskrit; KAB); Rajjambalu (Mar.; KAB); Rajphala (Sanskrit; KAB); Rasaneredu (Tel.; KAB); Ravanam (Guj.; KAB); Rayajambu (Porebunder; KAB); Rotravazaha (Hova; KAB); Salam (Malaya; IHB; KAB); Sambal (Tam.; KAB); Sambavi (Tam.; KAB); Sambu Takkolam (Tam.; KAB); Shukapriya (Sanskrit; KAB); Shyamala (Sanskrit; KAB); Sokod (San.; Satar; NPM); Surabhyapriya (Sanskrit; KAB); Svetajambu (Sanskrit; KAB); Sweet Olive (Eng.; DAV); Tété Négresse (Guad.; AVP); Thabyebyu (Burma; KAB); Thorajambula (Mar.; KAB); Tram Ba Voi (Ic.; KAB); Voi Rung (Ic.; KAB); Wachsjambuse (Ger.; USN); Wa Pa (Thai; IHB); Yambolana (Sp.; USN) Yuyam (Rai; NPM); Zambol (Kon.; KAB); Zebri (Magahi; KAB).

### Activities:

Analgesic (1; HH2); Anthelmintic (f; KAB); Antidote (nux-vomica) (f; IHB); Antiedemic (1; HH2; X12683225); Antifertility (1; JAC7:405); Antigenotoxic (1; X16321516); Antihistaminic

(1; X12683225); Antihyperglycemic (f1; X16253452; X9201610); Antiinflammatory (12; HH2; KOM; PH2; PIP; X11395258); Antioxidant (1; X16321516); Antiseptic (1; WOI); Antispasmodic (f; PHR); Antiulcer (1; X14724349); Aphrodisiac (f; HH2); Astringent (f12; EFS; HH2; KOM; MAD; PH2; PIP; WOI); Bactericide (1; WOI; X12165339); Carminative (f; PHR; WOI); Cerebroprotective (1; X12648817); Depurative (f; KAB); Diuretic (f; EFS; HH2; PHR; PH2; WOI); Febrifuge (f; KAB); Fungicide (1; WOI); Gastroprotective (1; X14724349; X15802860); Hepatotonic (f; KAB); Hypoglycemic (1; HH2; PHR; PNC; SKJ; WOI; X12693701); Insulinogenic (1; JAC7:405); Lactagogue (f; NMH); Radioprotective (1; X12866620); Stomachic (f; WOI).

### Indications:

Allergies (1; X12683225); Asthma (f; HH2; PHR; PH2); Atony (f; PH2); Bacteria (1; WOI; X12165339); Bilioussness (f; KAB); Blisters (f; SKJ); Bronchosis (f; HH2; PHR); Burns (f; KAB); Constipation (f; PH2); Depression (f; HH2; PHR); Dermatoses (2; KOM; PH2; PIP); Diabetes (f1; EFS; HH2; IHB; JAC7:405; MAD; NPM; PHR; PNC; SKJ; WOI; X12693701; X16716914; X9201610); Diarrhea (f12; EFS; HHB; KOM; NPM; PH2; PIP; WOI); Dysentery (f; HH2; IHB; NPM; PHR; WOI); Dyspepsia (f; SKJ); Dysuria (f; KAB; PH2); Edema (1; HH2; X12683225); *Escherichia* (1; WOI); Exhaustion (f; PHR); Fever (f; KAB; PH2); Fungus (f1; WOI); Gas (f; PHR; WOI); Gastrosis (f1; PHR; PH2; X14724349; X15802860); Gingivitis (f; KAB); Glycosuria (1; PNC); Halitosis (f; KAB); Hyperglycemia (1; EFS; X9201610); Impotence (f; HH2); Infection (f1; WOI; X12165339); Inflammation (12; HH2; KOM; PH2; PIP; X11395258); Leukorrhoea (f; PH2); Mucositis (2; KOM; PIP); Mycosis (1; WOI); Nervousness (f; PHR; PH2); Neurosis (f; PH2); Pain (1; HH2); Pancreatitis (f; PHR; PH2); Pharyngitis (2; KOM; PH2; PIP); Respiritis (2; KOM; PIP); Ringworm (f; KAB); Sores (f; PHR); Sore Throat (f; KAB); Spasms (f; PHR); Splenomegaly (f; NPM); Splenitis (f; KAB); Stomachache (f; PH2); Stomatitis (2; KOM; PH2; PIP); Swelling (1; X12683225); Thirst (f; KAB); Ulcers (f1; HH2; PH2; X14724349); Worms (f; KAB); Wounds (f; NPM).

### Dosages:

FNFF = !! Fruits commonly eaten. 0.3 g fruits several  $\times$ /day (MAD); 3–6 g bark/day (PIP); 1 g bark (MAD); 10–12 seeds/day for diabetes (NPM); 30 seeds (1.9 g) (PHR; PH2); 0.3–2 g powdered seed (PNC).

- Nepalese take ca. 4 tsp bark or leaf juice 3 $\times$ /day for diarrhea and dysentery (NPM).
- Nepalese use bark juice to treat diabetes, splenomegaly, and wounds (NPM).
- Terai chew 10–12 seeds/day for diabetes (NPM).

### Downsides:

Class 1 (AHP). None reported (PIP). Physician should be consulted if diarrhea lasts more than 3–4 days (PIP). Not recommended in diabetes mellitus (PHR). As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.

### Extracts:

Three different Brazilian studies of this Asian tree species failed to confirm antihyperglycemic activities of the leaf tea (X16963214). Philippine studies did prove the bark tea to be hypoglycemic or antihyperglycemic when fed simultaneously with glucose. At the same dosages of 5 mg/20 g mouse (250 ppm), *S. cumini*-treated mice showed a significant decrease in blood glucose levels at 30 min ( $\alpha = 0.10$ ) and from 45 min onward at  $\alpha = 0.05$  (X16253452). Indian studies attribute the hypoglycemic effect to water-soluble gummy fiber. Water-insoluble neutral detergent fiber and other seed constituents lacked significant hypoglycemic effects (X12693701). Extracted tannins have gastroprotective and antiulcerogenic effects (X14724349). LD<sub>50</sub> (95% ethanolic seed extract) 4,000 mg/kg orl/mus, 400 mg/kg par mus (HH2). EO shows good antibacterial activ-



ity (X12165339). Bark extract a potent antiinflammatory without side effects on gastric mucosa (X11395258).

### VENEZUELAN PAU D'ARCO (*Tabebuia barbata* (E. Mey.) Sandwith) +

#### BIGNONIACEAE

#### Synonyms:

*Bignonia barbata* E. Meyer; *B. fluviatilis* Aubl.; *Couralia toxophora* (Mart. emend. DC.) Benth. & Hook. ex K. Schum.; *Tecoma barbata* (E. Meyer) DC.; *T. toxophora* Mart. emend. DC.; *Zeyhera barbata* (E. Meyer) Miq.; fide (MPG).

#### Common Names:

Apamate (Ven.; MPG); Jaico (Ven.; MPG); Palo de Arco (Ven.; MPG); Palo de Mosquito (Ven.; MPG); Palo Mosquito (Ven.; MPG). (Nscn).

#### Activities:

Anticancer (1; X9567326); Antiseptic (f; MPG); Antitumor (1; X9567326); Cytotoxic (1; X9567326); Insecticide (f; MPG).

#### Indications:

Acne (f; MPG); Cancer (1; X9567326); Cancer, breast (1; X9567326); Cancer, colon (1; X9567326); Cancer, lung (1; X9567326); Dermatitis (f; MPG); Dystrophy (f; MPG); Infection (f; MPG); Myosis (f; MPG); Sores (f; MPG); Tumors (1; X9567326).

#### Dosages:

FNFF = ?

- Venezuelans use the lapachol-containing bark in cases of muscular degeneration (MPG).
- Venezuelans use toxic bark in baths for dermatoses, infections, pimples, and sores (MPG).

#### Downsides:

Bark considered toxic (MPG).

#### Extracts:

Bark contains the anticancer compound lapachol (MPG). Additionally, four naphthoquinones isolated from bark extracts of *T. barbata*, 2-acetylnaphtho-[2,3-b]-furan-4,9-dione, 2-acetyl-5-hydroxy-naphtho-[2,3-b]-furan-4,9-dione, 2-acetyl-8-hydroxy-naphtho-[2,3-b]-furan-4,9-dione, and (+)-8-hydroxy-2(1-hydroxy-ethyl) naphtho-[2,3-b]-furan-4,9-dione, show significant cytotoxicity against A-549 human lung adeno-carcinoma, MCF-7 human breast carcinoma, and HT-29 human colon carcinoma cells (X9567326).

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## PINK TRUMPET (*Tabebuia rosea* (Bertol.) DC.) ++

### BIGNONIACEAE

#### Illustrations:

p 905 (LWW)

#### Synonyms:

*Bignonia pentaphylla* L.; *Coralia rosea* (Bertol.) Donn. Sm.; *Sparattosperma rosea* (Bertol.) Miers; *Tabebuia angustata* Britt.; *T. mexicana* (Mart. ex DC.) Hemsl.; *T. pallida* Miers.; *T. pentaphylla* (L.) Hemsl.; *T. punctatissima* (Kranzl) Standley; *Tecoma evenia* Donn. Sm.; *Tecoma mexicana* Mart ex DC.; *Tecoma rosea* Bertol.; fide (JFM; JTR; MPG; POR; USN).

#### Notes:

I find it hard to believe the quote from Dr. Gentry: "Only one species of *Tabebuia* can be found in Peru: *T. insignis*" (60P). Egg (1999) mentions nearly a dozen Peruvian species, including this one.

#### Common Names:

Amapá (Brazil; Mex.; Peru; EGG; MAX; RAR); Amapola (Ma.; Mex.; AVP; JFM; JTR); Amparosa (Ma.; JFM); Apamante (Peru; EGG); Apamate (Ma.; Ven.; AVP; JFM); Cachahua (Ma.; JFM); Capa Bobo (Dor.; AVP); Cortés (Hon.; Ma.; JFM; LWW); Cul (Ma.; JFM); Encina (Pan.; MPG); Fresno (Ma.; JFM); Guayacán (Col.; Cr.; Ma.; AVP; JFM; JTR); Gurupa (Ma.; JFM); Hocab (Ma.; JFM); Hokab (Mex.; JFM; MAX); Icotil (Ma.; JFM); Ipê-Rosa (Brazil; USN); Kibra Hacha (Dutch; AVP); Leño Blanco (Cuba; Ma.; AVP; JFM; JTR); Macuelis de Bajo (Ma.; JFM); Macuelizo (Bel.; Ma.; JFM; LWW); Macuil (Ma.; Mex.; JFM; LWW); Macuilís (Ma.; Sal.; JFM; LWW); Maculez (Ma.; JFM); Maculigua (Ma.; Sal.; AVP; JFM; LWW); Maculishuate (Ma.; JFM); Maculiz (Ma.; Mex.; AVP; JFM; LWW); Maculizo (Guat.; Hon.; Ma.; Nic.; JFM; JTR; LWW); Maculiz Prieto (Mex.; JFM; LWW); Mano de León (Guat.; Hon.; Ma.; AVP; JFM; LWW); Maqueliz (Bel.; Guat.; AVP; LWW); Maquile (Ma.; Mex.; JFM; JTR); Maquiligua (Hon.; Ma.; Mex.; Sal.; JFM; JTR); Maquiliguat (Sal.; JTR); Maquilshuat (Peru; Sal.; EGG; RAR); Maria Blanca (Ma.; JFM); Matiliguat (Guat.; MPG); Matilishuate (Ma.; Mex.; JFM; MAX); Matiliguat (Ma.; AVP); Maybush (Eng.; JFM); Mayflower (Eng.; JFM; RAR); Nocoque (Ma.; JFM); Oaka (Creole; Nic.; IED); Ocobo (Col.; Ma.; JFM; LWW); Paliperro (Peru; EGG); Palo Blanco (Cuba; Guat.; Peru; JTR; MPG; RAR); Palo de Hierro (Nic.; AVP); Palo de Rosa (Ma.; Mex.; JFM; JTR); Palo Yugo (Col.; Ma.; Mex.; AVP; JFM; LWW); Páo de Preguica (Brazil; JTR); Pink Cedar (Eng.; Vi.; AVP); Pink Manjack (Vi.; AVP); Pink Poui (Eng.; Trin.; JFM; LWW; RAR; USN); Pink Trumpet (Eng.; AVP; JFM); Poirier (Haiti; Mart.; St. Lucia; AVP); Poirier Blanc (Fwi.; Guad.; AVP); Poirier du Pays (Fwi.; AVP); Poirier Gris (Guad.; AVP); Poirier Rouge (Fwi.; Guad.; AVP); Primavera (Ma.; JFM); Puntilla (Ma.; JFM); Roble (Pan.; Sp.; MPG; USN); Roble Blanco (Cr.; Cuba; Peru; MPG; RAR; RyM); Roble Colorado (Sal.; JTR); Roble de Costa (Pr.; AVP); Roble de Sabana (Cr.; Peru; JFM; LWW; MPG; RAR); Roble de San Luis (Ma.; JFM); Roble de Yugo (Cuba; Ma.; JFM; JTR); Roble

Gateado (Ma.; JFM); Roble Maguiligua (Peru; Sp.; AVP; EGG; RAR); Roble Morado (Col.; Peru; JFM; LWW; SOU); Roble Negro (Ma.; Ven.; JFM; LWW); Roble Prieto (Ma.; JFM); Roble Venezolano (Ma.; Pr.; JFM; LWW); Rosa Morado (Ma.; JFM; JTR); Rosy Trumpet Tree (Eng.; USN); Satanicua (Ma.; JFM); Trumpet Tree (Peru; RAR); Tural (Ma.; JFM); West Indian Bowwood (Eng.; AVP); White Cedar (Bermuda; Grenada; AVP; JTR); White Wood (Barbados; AVP); Yaxte (Guat.; MPG).

#### Activities:

Analgesic (f; MPG); Antiaggregant (1; MPG); Antidote (f; MPG); Antiedemic (1; X15264003); Antiinflammatory (1; MPG); Antiophidic (1; X15264003); Antirabies (f; MPG); Antiseptic (1; JFM; X7604753); Antitumor (1; MPG); Antiulcer (1; MPG); Bactericide (1; MPG); Candidicide (1; MPG); Cicatrizant (f; MPG); CNS-Stimulant (1; JFM); Cytotoxic (1; MPG); Emetic (1; MPG); Febrifuge (f; IED); Gram(+)-icide (1; X7604753); Gram(-)-icide (1; X7604753); Immunostimulant (1; MPG); Immunosuppressant (1; MPG); Molluscicide (1; MPG); RT-Inhibitor (1; MPG); Sudorific (f; MPG); Vulnerary (f; DAW).

#### Indications:

Anemia (f; MPG); *Bacillus* (1; MPG); Bacteria (1; MPG; X7604753); Bleeding (f; MPG); Boils (f; DAW); Cancer (f1; MPG); *Candida* (1; MPG); Carcinoma (1; MPG); Chlorosis (f; MAX); Colds (f; MPG); Constipation (f; MPG); Dermatitis (f; MPG); Diarrhea (f; IED); Dysentery (f; MPG); Edema (1; X15264003); Fever (f; IED; MAX); Fungus (f; MPG); Headache (f; MPG); Infection (f1; JFM; MPG; X7604753); Inflammation (1; MPG); Malaria (f1; MPG); Mycosis (f1; MPG); Pain (f; MPG); Pharyngosis (f; DAW); Protozoa (f; MPG); Rabies (f; JFM; MPG); *Salmonella* (1; MPG); Sarcoma (1; MPG); Snake Bite (f1; MPG; X15264003); Sores (f; MPG); *Staphylococcus* (1; MPG); Swelling (1; X15264003); Syphilis (f; MPG); Ton-silosis (f; MPG); Trypanosomiasis (1; MPG); Ulcers (1; MPG); Uterosis (f; MPG); VD (f; MPG); Wounds (f; DAW; MPG).

#### Dosages:

FNFF = ?

- Costa Ricans apply flower, leaf, a/o root decoction to snake bite (JFM).
- Costa Ricans use bark decoction for cold, fever, and headache (JFM).
- Guatemalans give bark decoction to dogs to prevent rabies (JFM).
- Mexicans use leaf/bark decoction for fever, the root decoction for anemia and chlorosis (JFM; MAX).
- Nicaraguans take bark decoction orally for diarrhea and fever (IED).
- Panamanians use bark decoction for dermatoses, mycoses, sores, and wounds (MPG).

#### Extracts:

Methanolic leaf and stem bark extracts show antimicrobial activity (X7604753). Ethanolic plant extract partially neutralized the edema-forming activity of *Bothrops asper* venom in Swiss Webster mice in a dose-dependent manner (X15264003).

### PAU D'ARCO (*Tabebuia* spp.) +

#### BIGNONIACEAE

#### Synonyms:

*Bignonia heptaphylla* Auct.; *Gelsemium avellandae* (Lorentz ex Griseb.) Kuntze; *Tabebuia avellandae* Lorentz ex Griseb.; *T. dugandii* Standley; *T. eximia* Mig.; *T. heptaphylla* Blake; *T. impetiginosa* (Mart.) Standl.; *T. ipe* (Mart) Standl.; *T. nicaraguensis* Blake; *T. palmeri* Rose; *T. schunkevigoi* Simpson; *Tecoma adenophylla* K. Schum; fide (HH2).

**Notes:**

Since the color plate used by Hansel et al. (1992, 1993, 1994) was from the late Al Gentry, Missouri Botanical Garden, recognized authority on the Bignoniaceae, I am biting the bullet and accepting their naming of *Tabebuia impetiginosa* as the vogue scientific name. Hence I have incorporated below their (HH2) and Taylor's (RAI) data on *Tabebuia impetiginosa*. Note that Mors et al. (2000) maintain *Tabebuia impetiginosa* and *Tabebuia ipe* as distinct species.

**Common Names:**

Aiajlai (Vilela; MPG); Aialai (Vilela; MPG); Aialek (Vilela; MPG); Guayacan (Sp.; SOU); Ipê Contra Sarna (Brazil; MPB); Ipê Mirim (Brazil; MPB); Ipê Preto (Brazil; MPB); IpL Rosa (Brazil; MPB); Ipê Roxo (Brazil; MPB; RAI); Ipê Tabaco (Brazil; MPB); Ipeuva (Brazil; MPB); Lapachito (Arg.; MPG); Lapacho (Arg.; HH2; MPG); Lapacho Crespa (Arg.; MPG); Lapacho Morado (Arg.; MPG); Lapacho Negro (Arg.; MPG); Lapachu (Arg.; MPG); Pauld'Arco Roxo (Brazil; MPB); Peuva (Brazil; MPB); Poty Ipe (Toba; MPG); Purple Lapacho (Eng.; RAI); Qarma Qeri (Bol.; Que.; DLZ); Tabebuia Ipê (Brazil; RAI); Taheebo (Sp.; HH2); Tahuari (Peru; DAV; RAI); Tajibo Rosado (Bol.; DLZ); Tawari (Aym.; Bol.; DLZ); Tayi (Guarani; MPG); Tayi Pichi (Guarani; MPG); Tayi Pyta (Par.; X12939034).

**Activities:**

Abortifacient (1; MAB; MPG; RAI); Alexeritic (f; CRC); Analgesic (f1; CRC; MAB; RAI; X11574048); Antiaggregant (1; MAB; RAI); Anticancer (1; X15829436); Anticarcinomic (1; RAI); Antidote (f; CRC); Antiedemic (1; HH2; MAB); Antiestrogenic (1; MAB); Antiexudative (1; HH2); Antihemorrhagic (1; X11025161); Antiinflammatory (1; MAB; MPG; RAI; X10820794); Antileukemic (1; HH2; RAI); Antilymphosarcomic (1; MAB); Antimalarial (1; RAI); AntiMDR (1; RAI; X12636992); Antimelanomic (1; MAB); Antimetastatic (1; MAB); Antioxidant (f1; JAF51:295; RAI); Antiparasitic (f; MAB); Antiproliferant (1; X12689523; X15829436); Antipsoriac (1; RAI; X10479319); Antiradicular (1; RAI); Antiretroviral (1; MAB); Antirheumatic (f; MAB; RAI); Antisarcomic (1; HH2; MPG); Antiseptic (1; MAB; MPG; RAI); Antitelomerase (1; X15829436); Antitrypanosomic (1; X11190779); Antitumor (f1; MAB; MPG; PED); Antiulcer (1; MAB); Antiviral (1; HH2; MAB; RAI); Aphrodisiac (f; CRC); Apoptotic (1; X14597880; X15829436); Astringent (f; MPB; PED); Bactericide (1; APA; MAB; RAI); Candidicide (1; MAB); Chemopreventive (1; X14597880); Cicatrizing (f; DLZ); Cox-2-Inhibitor (1; X15829436); Cytotoxic (1; HH2; X9567326); Depurative (f; MAB); Digestive (f; APA); Diuretic (f; CRC; PED; X11574048); Estrogenic (1; MAB); Febrifuge (f; PED); Fungicide (1; APA; CRC; MAB; PED); Hypoglycemic (f; APA); Immunodepressant (1; MAB); Immunostimulant (1; MAB; RAI); Insectifuge (1; RAI); Laxative (f1; JAF51:295; RAI); Parasiticide (1; APA); Protisticide (1; MAB; RAI); Spiro-Stimulant (1; RAI); RT-Inhibitor (1; HH2); Schistosomicide (1; RAI); Secretolytic (f; RAI); Termiticide (1; RAI); Termitifuge (1; CRC); Tonic (f; DLZ; RAI); Trypanosomicide (1; MAB); Vitamin-K-Antagonist (1; X9137445).

**Indications:**

Abscesses (1; RAI); Adenopathy (f; CRC; JLH); Allergies (f; RAI); Anemia (f; MAB; RAI); Arteriosclerosis (f; DLZ); Arthrosis (f; RAI); Asthma (f; HH2; RAI); Athlete's Foot (f1; APA; RAI); Backache (f; RAI); Bacteria (f1; RAI; X12636992); Bleeding (f; RAI); Boils (f; CRC); Bronchosis (f; HH2); Bursitis (f; RAI); Cancer (f1; APA; MAB; MPB); Cancer, breast (f1; CRC; FNF; JLH; X9567326); Cancer, colon (f1; CRC; FNF; JLH; X9567326); Cancer, esophagus (f1; CRC; FNF; JLH); Cancer, intestine (f1; CRC; FNF; JLH); Cancer, liver (f1; CRC; FNF; JLH); Cancer, lung (f1; CRC; FNF; JLH; X15753997; X9567326); Cancer, ovary (1; RAI); Cancer, pancreas (f1; CRC; FNF; JLH; RAI); Cancer, prostate (f1; CRC; FNF; JLH); Cancer, skin (1; MAB; PED); Cancer, throat (f1; CRC; FNF; JLH); Cancer, tongue (f1; CRC; FNF; JLH); *Candida* (f1; MAB; RAI); Carcinoma (1; MAB); Chagas' (1; X11190779);

Chlorosis (f; CRC); Circulosis (f; RAI); Colds (f; CRC); Colitis (f; RAI); Constipation (f1; JAF51:295); Coughs (f; RAI); Cystosis (f; MPG; RAI); Decubitus (f; HH2); Dermatitis (f1; MAB; PED; RAI; X11378288); Diabetes (f; DLZ; JAF51:295); Diarrhea (f; CRC); Dysentery (f; CRC; MAB); EBV (1; MAB); Dysuria (f; CRC; RAI); Eczema (f1; MAB; PED; RAI); Edema (1; HH2); Enterosis (f; JLH; MPG; RAI); Enuresis (f; CRC; RAI); Fever (f; CRC); Flu (f; RAI); Fungus (f1; CRC; SKY); Gastrosis (f; HH2; RAI); Gingivitis (f; RAI); Glioma (1; RAI); Gonorrhea (f; CRC; MPB; RAI); Headache (f; CRC; RAI); Hemorrhoids (f; PED; RAI); Hepatoma (1; RAI); Hepatosis (f; RAI); Hernia (f; RAI); Herpes (f; RAI); Hodgkin's Disease (f; APA; CRC; RAI); Immune Dysfunction (f1; RAI; SKY); Impetigo (f; RAI); Incontinence (f; CRC; RAI); Infection (f1; HH2; MAB; RAI); Inflammation (f1; RAI; X10820794); Itch (f; RAI); *Leishmania* (f; RAI); Leukemia (1; APA; MAB; PED); Lupus (f; CRC; RAI); Malaria (f1; MAB; RAI); Metastasis (f; JLH); Mycosis (f1; CRC; HH2; MAB; X11378288); Myeloma (1; RAI); Osteomyelitic (f; RAI); Pain (f1; CRC; HH2; RAI; X11574048); Parasites (f; RAI); Parkinson's (f; RAI); Pharyngosis (f; CRC; RAI); Polyps (f; JLH); Prostatitis (f; RAI); Psoriasis (f1; PED; RAI; X10479319); Pulmonosis (f; DLZ); Rabies (f; CRC); Respiriosis (f; RAI); Rheumatism (f; HH2; PED); Ringworm (f; MPB); Scabies (f; MAB; MPB; RAI); Schistosomiasis (1; MAB); Snake Bite (1; CRC; X11025161); Sores (f; HH2; MPB); Sore Throat (f; MAB; RAI); *Staphylococcus* (1; HH2; X12636992); Stomachache (1; HH2); Stomatitis (f; RAI); Swelling (1; X11574048); Syphilis (f; CRC; RAI); Tendonitis (f; RAI); Toothache (f; CRC; RAI); Trypanosomiasis (1; X11190779); Ulcers (f1; JAF51:295; MAB; PED; RAI); Uterosis (f; RAI); UTIs (f; RAI); Vaginosis (1; MAB); Varicosity (f; RAI); VD (f; CRC; MPB); Warts (f; RAI); Wounds (f1; DLZ; MAB); Yeast (f1; CRC; MAB; RAI; SKY).

#### Dosages:

FNFF = ? 15–20 g bark/pt water/day (APA); 2 tsp bark/l water (HH2); ¼–½ cup fresh inner bark (PED); 1.5–3.5 g/day dry bark (MAB); 6–12 g dry inner bark (PED); 9 g dry inner bark:45 ml alcohol/45 ml water (PED); 3–7 ml/day extract in 45% ethanol (1:2) (MAB); 3 (505 mg) capsules 3×/day (NH); 300 mg bark capsules 3×/day (SKY).

- Amazonians use for anemia, arthritis, boils, cancer, cold, colitis, cough, fever, flu, fungus, infection, *Leishmania*, rheumatism, snake bite, sores, and UTIs (RAI).
- Argentinians use for diarrhea, infection, respirosis, and UTIs (RAI).
- Bahamans use for backache, dysuria, gonorrhea, incontinence, and toothache (RAI).
- Bolivians suggest the leaf decoction to wash cancerous ulcers, the leaf tea with honey as a tonic, the bark decoction as a cicatrizant to wash wounds (DLZ).
- Brazilians use for allergy, arthritis, asthma, athlete's foot, bacteria, boils, bursitis, cancer, candida, cold, colitis, constipation, cystosis, dermatosis, diabetes, dysentery, eczema, enuresis, fever, flu, fungus, gastrosis, gingivitis, gonorrhea, hemorrhage, hemorrhoids, hepatosis, hernia, herpes, Hodgkin's, immunodepression, impetigo, infection, inflammation, itch, leishmania, leukemia, malaria, parasite, poor circulation, prostatitis, psoriasis, respirosis, rheumatism, ringworm, scabies, snake bite, sore throat, stomatitis, syphilis, tendonitis, uterosis, UTIs, vaginosis, varicosity, VD, warts, wounds, and yeast (MPB; MPG; RAI).
- Costa Ricans take for cancer, cold, fever, headache, and snake bite (RAI).
- Mexicans take for anemia and fever (RAI).

#### Downsides:

Class 1 (AHP). Side effects may include GI distress and nausea. "Whole bark has no known serious side effects" (SKY). Guiraud et al. (1994) note that lapachol and beta-lapachone, though active against *Candida*, could be harmful. Multiple doses of oral lapachol at 500 mg/kg caused death with severe histopathological changes. In clinical trials oral lapachol induced anticoagulant effects, nausea, and vomiting. After 6 doses at 9 mg/kg, beta-lapachone caused death, following anorexia, diarrhea, and weight loss (LRN, July 1990). Pregnant and lactating

women should avoid (SKY). Powdered wood and bark can cause pulmonary and topical allergies (HH2). Since anticancer levels of naphthaquinones are toxic; pau d'arco cannot currently be recommended as a treatment for cancer (SKY). As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

Naphthaquinones (lapachol and beta-lapachone) have antifungal properties comparable to ketoconazole (=) (SKY). Lapachol and other naphthoquinones (e.g., furonaphthoquinones) exert cytotoxic or immunosuppressive effects in large dose, while in low doses they are immunostimulants. The cytotoxic effects of the extracts may arise by induction of cellular and immune factors; LD50 values for lapachol in white mice at 1600 mg/kg, for xyloidone 600 mg/kg and beta-lapachone 80 mg/kg (HH2). Lapachol has a relatively high therapeutic index of nearly 20 (MAB). Cytotoxic against A-549 human lung adenocarcinoma, breast carcinoma, and colon carcinoma cells, with IC50 values 15–82.5  $\mu$ M (X9567326). Dichloromethane extracts of *Tabebuia avellanedae*, as well as its aqueous and methanol extracts, show high fungicidal activity (X11378288). With an IC50 value of 0.7  $\mu$ M, beta-lapachone displayed antipsoriatic activity comparable to that of anthralin (=) (X10479319). Beta-lapachone a better fungicide than ketoconazole (MAB); comparable to anthralin as antipsoriatic.

**MILKWOOD (*Tabernaemontana citrifolia* L.) +  
APOCYNACEAE**



**Illustrations:**

fig 667, p 883 (LWW)

**Synonyms:**

*Tabernaemontana oppositifolia* (Spreng.) Urban.

**Notes:**

The Apocynaceae, due to their paired testicle-like fruits, often end up with names that translate testicles, either “cojónes” or “huevos,” e.g., this one has names that translate to testicles of the cat, goat, monkey, pig, or rooster, depending on the locale.

**Common Names:**

Amatillo (Sal.; AVP); Arbre Laiteux des Antilles (Fr.; AVP); Azaharito (Ven.; AVP); Berraco (Mex.; AVP); Berraco de la Costa (Mex.; AVP); Bois Lait (Dom.; Guad.; Haiti; Mart.; AHL; AVP); Bois Laiteux (Fwi.; AVP); Bois Laiteux de Montagne (Guad.; AVP); Bois Laitieux Fébrifuge (Haiti; AVP); Bois Lait Mâle (Haiti; AHL; AVP); Bois Lait (Haiti; AHL; AVP); Borracho (Ven.; AVP); Buril (Ven.; AVP); Bwa Lèt Mal (Creole; Haiti; VOD); Cachito (Nic.; AVP; LWW); Cachitor (Cr.; AVP); Chanchito de Flores Blancas (Guat.; AVP); Chapupo

(Guat.; AVP); Chilindrón (Sal.; AVP); Citron-Leaved Tabernaemontana (Jam.; AVP); Cogotone (Bel.; AVP); Cójon (Cr.; Guat.; AVP); Cójon de Cabrito (Col.; AVP); Cójon de Mico (Guat.; Hon.; AVP); Cójon de Verraco (Ven.; AVP); Cójon Macho (Sal.; AVP); Cojotone (Bel.; AVP); Frailecillo (Col.; AVP); Huevo de Gallo (Cuba; AVP); Huevo de Gato (Pan.; AVP); Jazmín da Mata (Brazil; AVP); Jazmín de Montaña (Col.; AVP); Jazmín de Monte (Pan.; Sal.; AVP); Leche de Perra (Mex.; AVP); Lecheria (Mex.; AVP); Lecherillo (Mex.; AVP); Lechero (Cuba; Ven.; AVP); Lechoso (Cuba; AVP); Letueil (Haiti; AHL); Milkwood (Dor.; Eng.; VOD); Milkybush (St. Thomas; LWW); Nuno (Pan.; AVP); Palo de Leche (Dor.; AVP); Palo de Lechoso (Pr.; AVP; LWW); Palo de San Diego (Mex.; AVP); Paratucu (Brazil; AVP); Pegoge (Pr.; AVP; LWW); Pegojo (Cuba; AVP; LWW; RyM); Pitiminí (Cuba; LWW); Rejalgar (Mex.; AVP); Taberne à Feuilles de Cotronnier (Haiti; AVP); Verraco (Ven.; AVP). (Nscn; American entries diacritically prepared).

#### Activities:

Analgesic (f; VOD); Antiseptic (1; X9626931); Bactericide (1; X9626931); Febrifuge (f; MPB; VOD); Hemostat (f; AHL; VOD); Purgative (f; MPB); Tonic (f; MPB).

#### Indications:

Bacteria (1; X9626931); Bleeding (f; AHL; VOD); Constipation (f; MPB); Fever (f; MPB; VOD); Fungus (f; JFM); Hemorrhage (f; VOD); Herpes (f; AHL); Infection (f1; JFM; X9626931); *Mycobacterium* (1; X9626931); Mycosis (f; JFM); Pain (f; VOD); Ringworm (f; JFM); Toothache (f; VOD); Tuberculosis (1; X9626931); Viruses (f; AHL); Warts (f; AHL).

#### Dosages:

FNFF = X.

- Brazilians consider the leaves febrifuge, tonic, and purgative (MPB).
- Cubans apply the latex to stop bleeding and to herpes (JFM).
- Haitians take bark decoction as febrifuge and tonic (JFM).
- Haitians use the bark/latex decoction to bathe fever and hemorrhage (VOD).
- Haitians use the latex to alleviate toothache and remove birthmarks (VOD).

#### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

#### Extracts:

Ibogaine and voacangine, indole alkaloids from *T. citrifolia*, show antimycobacterial activity against *Mycobacterium tuberculosis* (X9626931). Ibogaine: antimycobacterial (MIC = 50–100 µg/ml), antiseptic (MIC = 50–100 µg/ml), antitubercular (MIC = 50–100 µg/ml), bactericide (MIC = 50–100 µg/ml); for more activities see the online database (FNF).

## LOBO SANANGO (*Tabernaemontana sananho* Ruiz & Pav.) ++

### APOCYNACEAE

#### Synonyms:

*Bonafousia sananho* (Ruiz & Pav.) Markgr.

#### Common Names:

Bai Suu (Secoya; SAR); Chiric Sanango (Peru; RAR); Jaen Sananho (Peru; RAR); Jasmim do Mata (Brazil; RAR); Lagardto Micunan Sanango (Peru; RAR); Lobo Sanango (Peru; Sp.; LOR; MDD; SAR); Manaca (Brazil; RAR); Papelillo (Peru; RAR); Paquerete (Brazil; RAR);

Pau de Colher (Brazil; RAR); Sanango (Peru; Sp.; LOR; RAR); Sanango de Altura (Col.; SAR); Sananguillo (Peru; RAR); Toomecocoriu (Peru; Sp.; LOR); Tsiikat (Jibaro; SAR); Yacu Sanango (Peru; RAR); Yoco Sanango (Peru; RAR).

**Activities:**

Analgesic (f; DAV); Antiinflammatory (1; X9683347); Cardiac (f; RAR); Contraceptive (f; SAR); Emetic (f; SAR); Sedative (f; RAR); Sudorific (f; RAR); Tonic (f; RAR); Tranquilizer (f; SAR).

**Indications:**

Childbirth (f; DAV); Colds (f; DAV; RAR; SAR); Inflammation (1; X9683347); Insomnia (f; RAR; SAR); Obesity (f; RAR); Ophthalmia (f; DAV; SAR); Pain (f; DAV); Puerperium (f; SAR); Rheumatism (f; DAV); Sores (f; RAR); Sore Throat (f; DAV; SAR); Syphilis (f; RAR); Toothache (f; DAV; SAR); VD (f; RAR); Wounds (f; DAV; SAR).

**Dosages:**

FNFF = ? Pulp used as gargle for cold and sore throat. Latex mixed with water and applied to eye wounds (SAR).

- Ecuadorians use cambial tea in puerperium (SAR).
- Jibaro apply bark latex to toothache (SAR).
- Tikuna consider bark decoction contraceptive, taking a cup/day during each day of menstruation (SAR).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

Ethanollic extract of *Bonaifousia sananho* (synonym) shows significant antiinflammatory activity *in vivo* in carrageenan-induced paw oedema in mice (9683347).

**AZTEC MARIGOLD (*Tagetes erecta* L.) ++****ASTERACEAE****Illustrations:**

p 67 (MAX); pl 140B (DAG)



**Notes:**

Though American, the plant has been called African, Aztec, or French “marigold” as well. It has acquired some Sanskrit names, e.g., “ganduga,” “sandu,” “sthulapushpa,” “zandu,” and “zanduga,” but these were not reported in Watt’s earlier *Dictionary of Economic Plants of India* (DEP). We read there, over a hundred years ago, that “French marigold” (*T. erecta*) and “African marigold” (*T. patula*) were widely cultivated and naturalized in India. The flowers are especially admired by the Himalaya hill people, strung into garlands and hung around idols, or placed in front of shrines and temples. “Rojia, the name current in Western India, perhaps denotes the introduction of the plant by the Portuguese with whom it appears to represent the rosa de ouro or golden rose, which the Pope usually blesses at mass on a Sunday in Lent” (DEP). It soon became important in Nepalese traditions, flower heads being offered to gods and goddesses, especially during Dasain and Tihar ceremonies (NPM). Back home in Peru, the flowers of the Rosario are important in ceremonial cleansing and energetic baths, like the floral head-wash often given out to Amazon ecotourists.

**Common Names:**

African Marigold (Eng.; Ocn.; Sri.; AH2; KAB; VOD); Afrikaantje (Ma.; JFM); Amapola (Ma.; JFM); Amay Panqara (Aym.; Bol.; DLZ); Anantsinahimbazaha (Hova; KAB); Aya Sisa (Peru; Sp.; LOR; MDD; SOU); Aztec Marigold (Eng.; Scn.; AH2; CR2; DAV; FAC); Banti (Tel.; DEP; KAB); Bantichettu (Tel.; WOI); Baram (Ulwa; ULW); Barioneto (Peru; EGG); Big Marigold (Eng.; USN); Calendula (Dor.; AHL); Cempasuchi (Peru; EGG); Cempasuchil (Ma.; JFM); Cempazuchil (Ma.; Mex.; JFM; MAX); Cempoalxochitl (Ma.; Mex.; JFM; KAB; MAX); Chambergo (Cuba; JLH); Chandumallige (Kan.; WOI); Chendumalli (Mal.; WOI); Chus (Ma.; JFM); Cimpul (Peru; EGG); Clavel de los Muertos (Dor.; AHL); Clavel de Muerto (Ma.; JFM); Clavelina (Peru; EGG); Clavellina (Ma.; JFM); Clavelón (Peru; EGG); Copada (Dor.; AHL); Copeta (Ma.; JFM); Copetuda (Ma.; JFM); Coxua (Ma.; JFM); Cravo de Defunto (Brazil; JFM; KAB; MPB); Flè Souci (Creole; Haiti; VOD); Fleurs Souci (Haiti; AHL); Flor de Difunto (Peru; EGG); Flor de Muerto (Col.; Cuba; Ecu.; Mex.; DAG; MAX; RyM; SAR; USN); Flor de Mujerto (Col.; IED); French Marigold (Eng.; KAB); Ganduga (Sanskrit; WOI); Genda (Ben.; Hindi; Pun.; Urdu; DEP; KAB; WOI); Gendu (Oriya; DEP; KAB; WOI); Golden Rose (Eng.; DEP); Grand Oeillet d’Inde (Ma.; JFM); Gulatora (Hindi; KAB); Gulgaindo (Nasirabad; KAB); Gulgoto (Kathiawar; DEP; KAB); Gul Jafari (Bom.; WOI); Guljajari (Bom.; DEP; WOI); Guljharo (Guj.; DEP; KAB; WOI); Gultera (Hindi; WOI); Hajai (Arab.; KAB); Hamahama (Arab.; KAB); Kajekharusa (Iran; KAB); Kalaga (Hindi; KAB); Lalamuraga (Hindi; KAB); Makhmala (Guj.; Mar.; KAB; WOI); Makhmali (Hindi; WOI); Makhmal (Bom.; DEP; WOI); Maravilha (Por.; USN); Marigol (Peru; EGG); Marigold (Eng.; VOD); Mentok (Pun.; DEP; KAB; WOI); Oeillet d’Inde (Fr.; DEP); Pastora (Ma.; JFM); Phole Mhendo (Tamang; NPM); Pisi Sisa (Shipibo/Conibo; Yine; MD2); Pose Inde (Fr.; DEP); Posuguiro (Piro; Yine; MD2); Posujira (Piro; Yine; MD2); Rajia Cha Phul (Mar.; KAB; WOI); Rojao (Ma.; JFM); Rojia (India; DEP); Rojiachaphul (Mar.; KAB; WOI); Rosa de Muerto (Peru; EGG); Rosa de Ouro (Por.; DEP); Rosario (Peru; EGG; SOU); Rosa Sisa (Peru; MD2; SOU); Ruda (Peru; EGG); Ruda Amarilla (Ma.; JFM); Rueda de Arado (Ma.; JFM); Sadabarg (Iran; KAB); Sadbargi (Pun.; KAB); Saffron Marigold (Eng.; USN); Sandu (Sanskrit; WOI); Sanpuel (Ma.; JFM); Sayapatri (Nepal; NPM); Seemeshamantige (Kan.; WOI); Sin Paul (Ma.; JFM); Souci (Haiti; AHL); Sthulapushpa (Sanskrit; KAB; WOI); Studentenblume (Ger.; USN); Tagète Rose d’Inde (Fr.; USN); Tangla (Pun.; DEP; KAB; WOI); Taphwa Swan (Newari; NPM); Terciopelo Amarillo (Col.; IED); Tsipolobazaha (Hova; KAB); Tulukka Samandi (Tam.; WOI); Turukkasamandi (Madras; KAB); Tutz (Ma.; JFM); Wan Shou Ju (Pin.); X-Puhuk (Ma.; JFM); Zandu (Sanskrit; KAB); Zanduga (Sanskrit; KAB); Zeb a Fanm (Creole; Haiti; VOD); Zempanichil (Ma.; JFM); Zendu (Mar.; KAB; WOI).

**Activities:**

Aldose Reductase Inhibitor (1; X1843126); Analgesic (f; DAV; EGG; MD2; MPB; ULW); Anthelmintic (f; MAX); Anticancer (f1; JAF50:4491; JLH); Antimutagenic (1; X9093387); Bactericide (1; WOI; X3597130); Bat Repellent (f; AAB); Carminative (f; NPM; WOI); Collyrium (f; SAR); Depurative (f; DEP); Diaphoretic (f; AAB); Diuretic (f; NPM; WOI); Emmenagogue (f; EGG; MAX; VOD; WOI); Gram(+)-icide (1; WOI); Hematostat (f; DEP; MD2); Insecticide (1; X14693221); Laxative (f1; MPB; WOI); Nematocide (1; WOI); Pectoral (f; MPB); Purgative (f; JFM); Sedative (f; DEP; EGG; MPB); Stimulant (f; AAB; JFM); Vermifuge (f; JFM; WOI).

**Indications:**

Abscesses (f; AAB); Amenorrhea (f; DAW; VOD); Asthma (f; IED); Bacteria (1; WOI; X3597130); Bilioussness (f; DLZ); Bites (f; MD2); Bleeding (f; DEP; KAB; MD2); Boils (f; DEP; NPM; WOI); Bronchosis (f; WOI); Cachexia (f; DAW); Cancer (f1; JAF50:4491; JLH; VOD; X9093387); Cancer, breast (1; JAF50:4491); Carbuncles (f; DEP; NPM; WOI); Colds (f; AAB; IED; WOI); Colic (f; AAB; EGG; IED; MAX); Conjunctivitis (f; NPM); Constipation (f1; JFM; MPB; WOI); Convulsions (f; KAB); Corns (2; ABS); Coughs (f; MPB); Cramps (f; EGG); Depurative (f; KAB); Dermatitis (f; NPM); Diarrhea (f; AAB; MD2); Dropsy (f; DAW); Dysmenorrhea (f; JFM); Dyspepsia (f; DAW; ULW); Dysuria (f; DEP); Earache (f; KAB; NPM; WOI); Eczema (f; DEM); Epilepsy (f; IED; KAB); Fever (f; AAB; DAV; EGG; KAB; SAR; ULW); Flu (f; AAB; IED); Gas (f; AAB; NPM; WOI); Gastrositis (f; AAB; DLZ); Gingivitis (f; KAB); Hangover (f; IED); Headache (f; AAB); Hemorrhoids (f; DEP; KAB); Hepatitis (f; JFM); Hysteria (f; ULW); Infection (1; WOI; X3597130); Insomnia (f; DEP; EGG; MPB); Maculosis (1; JAF50:4491); Malaise (f; AAB; IED); Malaria (f; EB22:318); Mastitis (f; AYL); Myalgia (f; WOI); Nausea (f; EGG; MD2); Nephrosis (f; DAW; WOI); Nerves (f; IED); Odontosis (f; KAB); Ophthalmia (f; DAV; DEP; SAR; WOI); Pain (f; AAB; DAV; EGG; MD2; MPB; ULW; WOI); Parotitis (f; AYL); Pertussis (f; DAW); Pulmonitis (f; JFM); Respiritis (f; JFM; ULW); Rheumatism (f; NPM; WOI); Scabies (f; KAB); Snake Bite (f; KAB); Sores (f; AAB; DEP; IED); Stomachache (f; JFM); Strangury (f; DEP); Tetanus (f; JFM); Toothache (f; DLZ); Tumors (f; JLH); Tympanitis (f; DEP); Ulcers (f; WOI); VD (f; JFM); Warts (f; EB25:241); Worms (f; EGG; JFM; MAX; WOI); Wounds (f; MD2).

**Dosages:**

FNFF = !! Flowers of some cultivars eaten (FAC). Mooshar children eat fresh flower receptacles (NPM). Flowers used to color butter and cheese, and lately chicken and egg yolks, added in chicken diets (JAD). Thai eat leaves and flowerbuds raw with "lon tao jieow" (coconut milk and fermented soy sauce).

- Asian Indians apply, with salt and indigo, to tympanitis (DEP).
- Asian Indians heat 1 tola flower juice with 1 tola ghi and give daily for 3 days for bleeding piles (DEP).
- Ayurvedics use the flower in epileptic fits and fevers (KAB).
- Bolivians suggest the floral tea for bilious colic and gastrositis (DLZ).
- Bolivians use decoction for toothache (DLZ).
- Brazilians suggest the pectoral sedative floral tea for bronchosis, cold, cough, and rheumatic pain (MPB), the tea as a vermifuge (JFM).
- Cubans poultice the flowers on cancer (JLH).
- Cubans take the flower decoction for chest cold, lung problems, and stomachache (JFM).
- Dominicans regard the flowers as emmenagogue, sudorific, and vulnerary (AHL).
- Haitians use leaf juice or floral decoction to regulate menstruations and treat cancer (VOD).

- Madre de Dios Peruvians take the floral tea, often mixed with canela, for diarrhea and nausea, applying the crushed flowers a/o leaves to cuts to staunch bleeding, and rubbing the flower on bug bites as pain relief (MD2).
- Mexicans take decoction for colic, constipation, gas, and liver complaints (JFM).
- Nepalese consider the floral decoction carminative, diuretic, and febrifuge (NPM).
- Nepalese paste the leaves onto boils, carbuncles, and earache (NPM).
- Peruvians rub the head with tinctures for fever (EGG).
- Peruvians use the tea as an eyewash for conjunctivitis (EGG).
- Tikuna cool a leaf decoction and use as eyedrops for eye pain (SAR).
- Ulwa use leaves and stems for aches, female ails, fever, dyspepsia, and respirosis (IED).
- Venezuelans suggest decoction internally for colds, dysmenorrhea, and bathing for tetanus (JFM).
- Yunani consider flowers antidotal, antiinflammatory, astringent, carminative, and stomachic, useful in gingivitis, hemorrhoids, hepatitis, odontosis, scabies, and snake bite (KAB).

#### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed nine titles alluding to toxicity of this species.

#### Extracts:

A crystalline lutein product, extracted from the flowers, contains ~ 86% lutein and zeaxanthin (X12176081).

## SWEET-SCENTED MARIGOLD (*Tagetes lucida* Cav.) ++

### ASTERACEAE

#### Notes:

Mexicans burn the flowers to repel mosquitoes (JFM; MAX). Though Mexicans consider it both a mosquito repellent and a remedy for malaria, Mexican studies cannot confirm antimarial activities (MAX).

#### Common Names:

Anisillo (Mex.; Sp.; MPG; USN); Cravo de Defunto (Ma.; JFM); Curucumín (Mex.; JFM; MPG); Flor de Santa Maria (Ma.; JFM); Flor de Tierra Dentro (Ma.; JFM); Glänzende Samtblume (Ger.; USN); Guia Laga Zaa (Ma.; JFM); Hierba Anis (Mex.; MPG); Hierba de San Juan (Mex.; JFM; MPG); Hierba de Santa Maria (Mex.; JFM; MPG); Hierbanis (Ma.; JFM); Hipericoon (Mex.; JFM; MPG); Iya (Ma.; JFM); Jolomocox (Guat.; JFM; MPG); Liya (Ma.; JFM); Mexican Marigold (Eng.; Ocn.; AH2); Mexican Mint Marigold (Eng.; JNP65:1773); Mexican Tarragon (Eng.; TAD); Pericón (Guat.; Hon.; MPG); Pericón Amarillo (Ma.; JFM); Perigon (Sp.; JNP65:1773); Periquillo (Mex.; JFM; MAX; MPG; USN); Santa Maria (Ma.; JFM); Sweet Mace (Eng.; FAC); Sweet Marigold (Eng.; FAC); Sweet Scented Marigold (Eng.; Scn.; AH2; CR2); Sweet Scent Mexican Marigold (Eng.; USN); Tagète Luisante (Fr.; USN); Tumutsali (Nahuatl; JFM; TAD); Tzitziqui (Mex.; JLH); Uca (Ma.; JFM); Yahuatli (Nahuatl; TAD); Yahutli (Ma.; JFM); Yerba Nil (Ma.; JFM); Yerbanis (Ma.; JFM); Yiauhitli (Mex.; MPG); Yyauhutli (Mex.; JLH).

#### Activities:

Analgesic (1; TRA); Anesthetic (1; TRA); Antiaggregant (1; JNP65:1773); Anticholinergic (1; TAD); Antidote (scorpion) (f; JFM); Antiinflammatory (f; MPG); Antioxidant (1; JNP65:1773);

Antiradicular (1; X12502312); Antiseptic (f; MPG); Antispasmodic (f1; MPG; TRA); Bactericide (1; TRA; X2214824); Bronchodilator (1; MPG); Candidicide (1; TRA); CNS-Depressant (1; MPG); Digestive (f; MPG); Diuretic (f; MPG); Emmenagogue (f; MPG); Fungicide (1; TRA); Hallucinogenic (f; MPG); Hypotensive (1; MPG); Immunomodulator (1; MPG); Lymphocytogenic (1; MPG); Mosquitofuge (f; JFM; MPG); Myorelaxant (1; JNP65:1773; TRA); Nematocide (1; TRA); Pediculicide (f; JFM); Tachycardic (1; MPG); Uterorelaxant (1; TAD); Vibriocide (1; MPG).

#### Indications:

Anemia (f; MPG); Asthma (1; MPG); Bacteria (1; TRA; X2214824); Bleeding (f; EB22:319); *Candida* (1; TRA); Cardiopathy (1; JNP65:1773); Childbirth (f1; MPG; TAD); Cholera (1; TRA); Colds (f; MPG); Colic (f; JFM; MPG); Dermatitis (f; EB22:319); Diarrhea (f; JFM); Dysmenorrhea (f; MPG); Dyspepsia (f; JFM; MPG); Enterosis (f; MPG); *Escherichia* (1; MPG); Fever (f; JFM); Flu (f; MPG); Fungus (1; TRA); Gas (f; MPG); Gastrosis (f1; JFM; MPG; TRA); Gonorrhoea (1; TRA); Headache (f; MPG); Hemoptysis (f; EB22:319); Hepatosis (f; MPG); Hiccups (f; EB22:319); High Blood Pressure (1; MPG); Infection (f1; MPG; TRA; X2214824); Inflammation (f; MPG); Insanity (f; MPG); Lice (f; JFM); Malaria (f; EB22:319; JFM; MPG); Mycosis (1; TRA); Myosis (1; TAD); Nausea (f; JFM); *Neisseria* (1; MPG); Neurosis (f; MPG); Pain (f1; MPG; TRA); Pertussis (f; MPG); Pneumonia (f; MPG); Respirosis (1; X2023428); Rheumatism (f; MPG); *Salmonella* (1; TRA); Scorpion Stings (f; JFM); *Shigella* (1; MPG; TRA); Spasms (f1; MPG; TRA); Stomachache (1; TRA); *Streptococcus* (1; TRA); VD (1; TRA); *Vibrio* (1; MPG); Yeast (1; TRA).

#### Dosages:

FNFF = !! Leaves and flowers a tarragon substitute (FAC; TAD). Dried leaves and flowering tops made into tea (FAC). Hot tea marketed in Mexico (JFM).

- Guatemalans use the shoot decoction for dyspepsia, nausea, and stomach distress (JFM).
- Mexicans poultice crushed plants on tumors (JLH).
- Mexicans use the hot tea as a beverage, good for colic, fever, and scorpion stings, also for bathing infants (JFM).
- Mexicans used powdered plant, unsuccessfully apparently, for malaria (JFM).

#### Downsides:

LD50 = >50,000 mg/kg (TRA). Don't take for more than 3 days (TRA). As of July 2007, the FDA Poisonous Plant Database listed six titles alluding to toxicity of this species.

#### Extracts:

LD50 (spasmolytic extract) = >100 mg/kg (MPG).

## KHAKI BUSH (*Tagetes minuta* L.) + ASTERACEAE

#### Synonyms:

*Tagetes glandulifera* Schrank; *T. multiflora* Kunth; fide (ROE; WOI).

#### Notes:

Before I knew this species I saw it as a serious weed in South Africa and Kenya, where I saw primates eating the plant, perhaps worming themselves in the process. Have these primates learned the nematocidal properties of this American species, now a weed in Africa, in 500 years, since the Columbian Exchange. After puzzling over the plant in Africa, I saw the rather poor photo of it on page 111 of *The Wealth of India* (WOI), and finally, the ID sank in. *Tagetes*

*minuta* ain't always minute. Tagetes oil is produced from *T. minuta* in Australia, France, and Kenya. The oil is fly repellent and kills mosquito larvae, "but being toxic its use in pharmacy has almost been abandoned ... Its use is restricted to perfumery only" (WOI).

### Common Names:

Aztec Marigold (Eng.; USN); Camanilla (Bol.; MPG); Chiche (Peru; EGG); Chilca (Peru; ROE); Chilche (Peru; EGG); Chinchilla (Peru; ROE); Chinchilla Enana (Sp.; USN); Chiquilla (Peru; ROE); Chizchipa (Peru; ROE); Coari Bravo (Brazil; MPB); Cravo de Defunto (Brazil; MPB); Cravo de Defunto Miúdo (Brazil; MPB); Dwarf Marigold (Eng.; USN); Huacatai (Peru; RAR); Huacatay (Peru; RAR; ROE; USN); Huatacay (Peru; RAR); Mastranzo (Peru; ROE); Menta Americana (Bol.; MPG); Mexican Marigold (Eng.; FAC; TAD); Mula Huacatay (Peru; ROE); Mula Vegetal (Sa.; ROE); Mula Wakatay (Sa.; ROE); Muster John-Henry (Eng.; FAC); Sayco (Bol.; MPG); Soico (Peru; ROE); Stinking Roger (Eng.; USN); Wacatay (Peru; EGG; ROE); Wacataya (Aym.; Bol.; Que.; MPG); Wild Marigold (Eng.; USN); Zuico (Bol.; Peru; MPG; ROE). Nscn.

### Activities:

Anthelmintic (f; MPG; WBB); Antiabortive (f; EGG; MPG; RAR); Anticancer (1; MPG); AntiGABA-nergic (1; X9711465); Antiinflammatory (1; WOI); Antiseptic (f1; MPG; ROE); Antispasmodic (1; MPG; WOI); Antitumor (1; X4712604); Antiviral (1; MPG; WOI); Aperient (f; WOI); Bactericide (1; X9201613); Bronchodilator (1; WOI); Candidicide (1; MPG); Carmi-native (f1; EGG; FNF; ROE); Cholagogue (f; EGG); CNS-Stimulant (f1; ROE); Dermatigenic (1; X4451394); Diaphoretic (f1; DAW; WBB; WOI); Digestive (f; EGG); Diuretic (f; MPB; WBB; WOI); Emmenagogue (f; FNF; MPB; WBB); Expectorant (f; MPG); Fungicide (f1; FNF; MPG; VAG; X12858932); Gram(+)-icide (1; X9201613); Gram(-)-icide (1; X9201613); Hemostat (f; ZIM); Hypotensive (1; WOI); Immunostimulant (1; MPG); Insecticide (f1; EGG; MPG; ROE; X1895085); Insectifuge (1; WBB); Inteferonogenic (1; MPG); Irritant (f; WBB); Ixodifuge (f; FNF); Juvabional (1; WOI); Larvicide (1; WBB; WOI; X1895085); Mosquitocide (1; WBB; WOI; X1895085); Nematocide (1; WOI); Neurotonic (f; MPG); Parasiticide (f; ROE; WBB); Pediculicide (f; EGG); Poison (f1; DAW); Purgative (f; WBB); Stimulant (f; WBB); Stomachic (f; WBB); Tranquilizer (1; FNF; WOI); Vermifuge (f; EGG; MPB; ROE); Vulnerary (f; EGG).

### Indications:

Amenorrhea (f; MPB); Asthma (1; WOI); *Bacillus* (1; MPG); Bacteria (1; MPG; X9201613); Bilioussness (f; EGG); Bleeding (f; ZIM); Cancer (1; MPG; X4712604); *Candida* (1; MPG; X12858932); Catarrh (f; ROE); Childbirth (f; ROE); Colic (f; MPB); Congestion (f; MPG); Constipation (f; ZIM); Cramps (1; FNF; MPG; WOI); *Cryptococcus* (1; X12858932); Diarrhea (f; ROE); Dyspepsia (f; FNF; MPB); Enterosis (f; MPB); Epistaxis (f; ZIM); Fever (f; ROE); Fungus (f1; FNF; MPG; VAG; X12858932); Gas (f1; EGG; FNF; ROE); Gastrosis (f; FNF; ROE); Hemorrhoids (f; FNF; WBB); High Blood Pressure (f1; FNF; WOI); Hysteria (f; FNF; WBB); Infection (f1; FNF; MPG; ROE; VAG; X12858932; X9201613); Inflammation (1; FNF; WOI); Maggot (1; WBB); *Microsporium* (1; X12858932); Mycosis (1; FNF; X12858932); Parasites (f; MPB; ROE); Pediculosis (f; EGG); Pulmonosis (f; ROE); Rheumatism (f; EGG; MPB); Rhinosis (f; ZIM); Stomachache (f; EGG; ROE); *Trichophyton* (1; X12858932); Viruses (1; MPG; WOI); Worms (f; EGG; FNF; MPB; MPG; ROE; WBB); Wounds (f; EGG; ROE; ZIM); Yeast (1; MPG).

### Dosages:

FNFF = !! Leaves edible, considered a spice, and cultivated as such by some Andeans (EGG; RAR; ROE). Used in tea in South America (TAD). Latinos make a pesto-like sauce from the leaves with peanut oil and hot peppers, often served on potatoes (TAD). EO used in baked goods, candy, ice cream, soft drinks, etc. (FAC).

- Andean Peruvians use the tea in childbirth and diarrhea (ROE).
- Brazilians suggest the plant as diuretic, emmenagogue, and excitant, for colic, dyspepsia, enterosis, parasites, and rheumatism (MPB).
- Peruvians rub the tincture on rheumatism (EGG).
- Peruvians suggest the infusion with parsley and pigeon feces to prevent abortion (EGG).
- Peruvians view decoction or tea as antiabortive, anibilious, carminative, cholagogue, digestive, vermifuge, and vulnerary (EGG; ROE).
- Peruvians wash malignant ulcers with the tea (SOU).

**Downsides:**

Synergistic with pyrethrum as insecticide (WOI). Contact dermatitis is reported from *Tagetes minuta* (X4451394). Pregnant a/o nursing women should avoid because it reportedly decreases lacteal secretion (ROE). As of July 2007, the FDA Poisonous Plant Database listed 10 titles alluding to toxicity of this species.

## FRENCH MARIGOLD (*Tagetes patula* L.) + ASTERACEAE

**Synonyms:**

*Tagetes lunulata* Ortega

**Notes:**

Unfortunately Arsene (1971) aggregated the common names for *Calendula* and *Tagetes* in his compilation. So I have omitted those common names for fear of generating confusion. Leaves of *Calendula* are entire and scarcely aromatic; leaves of *Tagetes* are pinnatifid and rankly aromatic. *Tagetes* oil is extracted from this species in France, where it is used in perfumery (WOI).

**Common Names:**

Amapola (Col.; IED); Amapola Amarilla (Sp.; USN); Chinchimali (Col.; IED); Clavel de los Muertos (Dor.; AHL; EGG); Clavel de Moro (Peru; EGG); Copada (Dor.; AHL); Copetes (Sp.; USN); Copetillo (Sp.; USN); Damasquina (Cuba; Peru; EGG; RyM); Fleur Souci (Haiti; AHL); Flor de Muerto (Col.; Peru; EGG; IED; RAR; SOU); French Marigold (Eng.; USN); Genda (Ben.; Hindi; Pun.; WOI); Gendu (Oriya; WOI); Guljaphini (Bom.; WOI); Imeretian Saffron (Eng.; FAC); Ixtapul (Bel.; BNA); Machamul (Bom.; KAB); Marigol (Peru; EGG); Souci (Haiti; AHL; AVP; VOD); Studentenblume (Ger.; USN); Taugla (Sanskrit; WOI); Ter-ciopelo (Col.; IED). (Nscn).

**Activities:**

Aldose Reductase Inhibitor (1; X1843126); Analgesic (f; EGG; RAR); Anthelmintic (f; WOI); Antibradykinin (1; X12164264); Antiedemic (1; X12164264); Antihistaminic (1; X12164264); Antiinflammatory (1; X12164264); Antiprostaglandin (1; X12164264); Antiseptic (f; DAW); Antiserotonin (1; X12164264); Antiulcer (f; X9621653); Astringent (f; DAW); Bactericide (1; WOI); Carminative (f; WOI); Diaphoretic (f; DAW); Diuretic (f; DAW); Emmenagogue (f; AHL; VOD); Fungicide (1; X15462529); Gram(+)-icide (1; WOI); Hemostat (f; DAW); Hypotensive (1; X15554261); Insecticide (f1; EGG; WOI); Insectifuge (f1; EGG; WOI); Larvicide (1; EGG; X15267138); Mosquitocide (1; EGG; X15267138); Nematocide (f; WOI); Pectoral (f; EGG); Purgative (f; WOI); Stimulant (f; WOI); Stomachic (f; DAW); Sudorific (f; AHL; VOD); Vermifuge (f; DAW); Vulnerary (f; AHL; VOD).

**Indications:**

Allergies (1; X12164264); Amenorrhea (f; VOD); Asthma (f; EGG; RAR; SOU); Bacteria (1; WOI); Bleeding (f; DAW); Bunion (2; X8866346); Chest (f; RAR); Coughs (f; DAW);

Dysentery (f; DAW); Edema (1; X12164264); Enterosis (f; VOD); Fungus (1; X15462529); Gas (f; WOI); Gastrosis (f; RAR); Hallux Abducto Valgus (2; X8866346); Hepatosis (f; VOD); High Blood Pressure (1; X15554261); Infection (f1; DAW; WOI; X15462529); Inflammation (1; X12164264); Mycosis (1; X15462529); Pain (f; EGG; RAR); Retinosis (f; WOI); Rheumatism (f; DAW); Sores (f; VOD); Stomachache (f; EGG; RAR; SOU); Swelling (1; X12164264); Ulcers (f; X9621653); Worms (f; DAW; WOI); Wounds (f; AHL; VOD; WOI).

#### Dosages:

FNFF = !! Leaves used as a spice in Africa; dried flowers used as adulterant of, or substitute for, saffron (FAC). Important in Asian soups and spices; flowers used to make beverages (FAC).

- Asian Indians, reporting iodine in the juice, apply it to wounds (WOI).
- Dominicans regard the flowers as emmenagogue, sudorific, and vulnerary (AHL).
- Dominicans use floral decoction for abdominal complaints (VOD).
- Haitians apply flowers externally as a vulnerary (VOD).
- Haitians use floral tea or tincture as emmenagogue, sudorific, and for hepatoses (VOD).

#### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.

### DWARF MARIGOLD (*Tagetes pusilla* Kunth) ++

#### ASTERACEAE

#### Illustrations:

p 388 (DLZ); p 615 (ROE)

#### Notes:

This is a very impressive aromatic, as low as one inch in the llama-cropped lawns on the ruins of Machu Picchu. Strongly smelling of anise, and reportedly containing anethole, it has some of the activities of anethole, e.g., carminative, emmenagogue, and lactagogue. Since it is not covered in McGuffin et al. (2000) or the USDA Nomenclature Database (USN), I had to select a common name in English. "Pampa anise" seemed most appropriate as a direct translation, but "dwarf marigold" is more appropriate, taxonomically. It is much smaller than *Tagetes minuta* (which I have seen up to 8 feet tall in my garden here in Maryland).

#### Common Names:

Allpa Anis (Peru; ROE); Anicillo (Bol.; Peru; DLZ; ROE; SOU); Anis Anis (Bol.; DLZ; MPG); Anis Camarrón (Peru; ROE); Anis del Campo (Peru; ROE); Anis del Monte (Bol.; MPG); Anisillo (Bol.; Peru; MPG; RAR); Anis Silvestre (Bol.; MPG); Anis Verde (Bol.; DLZ); K-ita Anis (Peru; ROE); K'itha Anis (Aym.; Bol.; Que.; DLZ; MPG); Pampa Anis (Aym.; Bol.; Peru; Que.; DLZ; MPG; RAR; ROE; SOU); Sacha Anis (Peru; ROE); Supiquehua (Peru; ROE; SOU); Tomillo (Peru; ROE); Tuna Anis (Peru; RAR; ROE; SOU). (Nscn).

#### Activities:

Antiedemic (1; X9683347); Antiinflammatory (1; X9683347); Antiseptic (1; X10190189); Antispasmodic (f; MPG); Antiviral (1; X10190189); Carminative (f; DLZ; ROE); Diaphoretic (f; ROE); Digestive (f; MPG); Diuretic (f; MPG; ROE); Emmenagogue (f; MPG; ROE); Emollient (f; ROE); Lactagogue (f; ROE); Mosquitofuge (1; X17583499); Oxytotic (f; MPG); Stomachic (f; ROE); Sudorific (f; DLZ); Tonic (f; ROE).

**Indications:**

Amenorrhoea (f; ROE); Colic (f; DLZ); Dyslactea (f; ROE); Dyspepsia (f; DLZ); Edema (1; X9683347); Gas (f; DLZ; ROE); Infection (1; X10190189); Inflammation (1; X9683347); Spasms (f; MPG); Stomachache (f; DLZ; ROE); Stomatitis (1; X10190189); Swelling (1; X9683347); Syphilis (f; ROE); VD (f; ROE); Viruses (1; X10190189); Worms (f; ROE).

**Dosages:**

FNFF = ! Aromatic plants used to flavor foods and spices (JAD).

- Argentinians take the tea for digestive disorders (MPG).
- Bolivians say that the tea in milk is a powerful sudorific (DLZ).
- Colombians consider the plant emmenagogue (MPG).
- Peruvians consider the plant antispasmodic, carminative, and diuretic (MPG).

**Extracts:**

EO effective at repelling *Aedes aegypti* (X17583499). Aqueous plant extract (at 100–250 µg/ml) inhibited replication of vesicular stomatitis virus (X10190189). Ethanollic plant extract showed significant antiinflammatory activity *in vivo* in carrageenan-induced paw oedema in mice (X9683347).

## MAHOE (*Talipariti tiliaceum* (L.) Fryxell) ++

### MALVACEAE

**Synonyms:**

*Hibiscus tiliaceus* L. (basonym); fide (USN).

**Notes:**

Though this is a pantropical species, I have largely excluded the extra American information.

**Common Names:**

Algodão da Práia (Por.; AVP); Algodoeiro da Práia (Brazil; Por.; AVP; MPB); Algodoncillo (Ven.; AVP); Amahagua (Dom.; AVP); Beach Hibiscus (Eng.; USN); Blue Moho (Bel.; AVP); Bois de Liège (Fr.; AVP); Bois Flot (Guad.; Mart.; AVP); Burao (Vanuatu; X1453707); Coton Marron (Haiti; AVP); Cottontree (Aust.; Eng.; USN); Damajagua (Peru; AVP); Demajagua (Dom.; AVP); Emajagua (Peru; Pr.; AVP); Grand Mahaut (Fr.; AVP); Guaxima (Por.; AVP); Hawaiian Tree Hibiscus (Eng.; USN); Holol (Mex.; AVP); Huamoga (Ecu.; AVP); Kayuwa (Sur.; AVP); Kiphuo (Cr.; AVP); Korkholzbaum (Ger.; AVP); Linden Hibiscus (Eng.; IED; USN); Mahao (Hon.; AVP); Mahaut (Ger.; USN); Mahaut Franc (Fr.; AVP); Maho (Brazil; Sur.; AVP); Mahoe (Eng.; Pan.; AVP; USN); Mahot Blanc (Fr. Guy.; AVP); Mahot Foresier (Fr. Guy.; AVP); Mahot Franc (Guad.; AVP); Maíñu (Garifuna; Nic.; IED); Majagua (Cuba; JTR); Majagua del Mar (Trin.; AVP); Majagua Hembra (Cuba; JTR); Majagüito de Playa (Col.; AVP); Mountain Mahoe (Eng.; USN); Mpunga (Congo; AVP); Nkuku (Congo; AVP); Parití (Fr. Guy.; AVP); Pox (Mex.; AVP); Rosenholz (Ger.; AVP); Sea Hibiscus (Eng.; AVP; USN); Seaside Mahoe (Eng.; Jam.; AVP); Trokro (Cr.; AVP); Tungu (Congo; AVP); Uacima de Praia (Brazil; AVP); Wild Cotton (Bel.; AVP). (Nscn).

**Activities:**

Antiedemic (f; IHB); Antigenotoxic (1; X17683899); Antimutagenic (1; X16968101; X17683899); Antioxidant (1; X16968101; X17683899); Antitussive (f; IHB); Cicatrizant (f; DAW); Collyrium (f1; EB28:19; FNF); Cytotoxic (1; X16732539); Decongestant (f; EB25:249); Diuretic (f; WOI); Emetic (f1; WOI); Emollient (f1; WOI); Febrifuge (f; IHB); Hemostat (f;



EB28:19); Laxative (f; EB25:249; WOI); Pectoral (f; JTR); Resolvent (f; WOI); Sudorific (f; DAW); Tyrosinase-Inhibitor (1; X15665485); Vulnerary (f; MPB).

#### Indications:

Arthrosis (f; WOI); Bleeding (f; EB28:19); Boils (f; IHB); Bronchosis (f; IHB); Cancer (1; X16732539; X16968101; X17683899); Childbirth (f; EB28:19; IED); Congestion (f; EB25:249); Constipation (f; EB25:249; WOI); Coughs (f; IHB); Dermatoses (f; EB25:441; EB28:19); Dysentery (f; WOI); Earache (f; IED); Edema (f; IHB); Enterosis (f; EB28:19); Fever (f; IHB); Gonorrhea (f; EB28:19); Hemorrhoids (f; DAW; JTR); Itch (f; DAW); Labor (f; EB28:19); Lumbago (f; WOI); Metroxenia (f; EB28:19); Otorrhea (f; IED); Pregnancy (f; IED); Pulmonosis (f; EB25:249); Rheumatism (f; WOI); Sores (f; DAW; MPB); Sore Throat (f; EB25:249); Swelling (f; IHB); Wounds (f; DAW; EB28:19; MPB).

#### Dosages:

FNFF = ! Young leaves serve as a potherb (IED).

- Brazilians use emollient flowers and leaves for chronic sores and wounds (MPB).
- Cubans use the leaf decoction for piles (JTR).
- Nicaraguan Garifuna use the bark and leaf decoction for childbirth, constipation, fever, and pregnancy (IED).
- Panamanians used boiled flowers in milk for earache (IED).
- Vanuatu natives use many plants to speed child delivery, e.g., “burao” (*Talipariti*) (X1453707).

#### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

#### Extracts:

Methanolic leaf extract of *Hibiscus tiliaceus* exhibited potent tyrosinase inhibition (X15665485). Methanolic flower extract (*H. tiliaceus*) exhibited antioxidant and antimutagenic activity (X16968101). Methanolic extract of *H. tiliaceus* (at 0.001–0.1mg/ml) was not cytotoxic, genotoxic, or mutagenic, and at these concentrations exhibited antigenotoxic, antimutagenic, and antioxidant effects against oxidative DNA damage (X17683899). Hibiscus-amide, hibiscusin, P-hydroxybenzaldehyde, P-hydroxybenzoic acid, N-cis-feruloyltyramine, N-trans-feruloyltyramine, scopoletin, syringic acid, vanillic acid, a mixture of beta-sitosterol, beta-sitosterol, stigmasterol, and stigmasta-4,22-dien-3-one were isolated from the stem wood of *H. tiliaceus*. Three of the compounds exhibited cytotoxicity against P-388 and/or HT-29 cell lines *in vitro* (IC<sub>50</sub> < 4 µg/ml) (X16732539).

T

## TAMARIND (*Tamarindus indica* L.) +++

FABACEAE

#### Illustrations:

p 449 (NPM); p 744 (TTS); pl 361(KAB)

#### Synonyms:

*Tamarindus occidentalis* Gaertn.; *T. officinalis* Hook.; *T. umbrosa* Salisb.; fide (Por).

#### Notes:

The tree is the habitation or “preferred tree” of the Iwa Dambala and Ayida Wedo (VOD citing Hurbon, 1995). Like the coconut and Indian almond, this seems to be well established in coastal tropical America, but apparently originated in Asia.

**Common Names:**

Abdika (Sanskrit; KAB); Ambala (Iran; NAD); Ambalah (Iran; KAB); Ambali (Mar.; DEP; KAB); Ambia (Sanskrit; NAD); Ambilam (Tam.; KAB; POR); Ambla (Guj.; POR); Amblairo (Lambadi; KAB); Ambli (Ben.; Dec.; Guj.; DEP; POR); Amilam (Tam.; KAB; POR; WOI); Amiligai (Tam.; KAB); Amilii (Nepal; POR); Amla (Sanskrit; KAB); Amlam (Mal.; KAB; WOI); Amlavraksha (Sanskrit; NAD); Amla (Ben.; Bom.; Dec.; Guj.; Hindi; Kan.; Merwara; Ramnagar; Sanskrit; DEP.; KAB; POR; WOI); Amlika (Hindi; Sanskrit; Tel.; DEP.; KAB; NAD; POR); Amlike (Kan.; KAB); Amla Kubot (Dec.; DEP); Amlina Chicora (Guj.; NAD); Ampil (Cam.; Ic.; KAB; POR); Ampil Khui (Khmer; POR); Ampil Tum (Khmer; POR); Âm'puul (Khmer; POR); Anbalah (Iran; DEP; NAD); Anbli (Ben.; Guj.; Hindi; WOI); An Mi Lo (China; EFS); Asam (Malaya; Mysore; DEP; KAB; POR); Asam Jawa (Malaya; EFS; IHB; POR); Asam Kuning (Malaya; POR); Asck (Tel.; DEP); Asem (Ma.; JFM); Asok (Oriya; DEP); Assam (Fr.; KAB); Assam Java (Malaya; NAD); Assem (Dutch; POR); Atyamba (Sanskrit; KAB); Bakham Somkham (Thai; POR); Balam (Mal.; DEP); Bhukta (Sanskrit; KAB); Blairfomiairletsho (Krobo; KAB); Blorfo Yoryitsho (Ga; KAB); Borofa Somnglongran (Twi; KAB); Bse Yab (Danuwar; NPM); Camalagui (Vis.; KAB); Cay Me (Vn.; POR); Charitra (Sanskrit; KAB); Chicha (Kurku; Mar.; DEP; POR; WOI); Chinch (Hindi; Kon.; Mar.; DEP; NAD; POR; WOI); Chinch (Bom.; Mar.; Sanskrit; DEP; KAB; OFF); Chinchika (Sanskrit; KAB); Chinchoka (Mah.; NAD); Chinta (Mah.; Tel.; DEP; KAB; NAD; POR); Chintachettu (Tel.; WOI); Chintapandu (Tel.; DEP; NAD; WOI); Chintz(Bom.; Mah.; KAB; NAD); Chita (Gond.; Ma.; DEP; JFM); Chitz (Mar.; KAB); Chukra (Sanskrit; KAB); Chukrika (Sanskrit; KAB); Chukru (Sanskrit; KAB); Dakhar (Wolof; KAB); Daktyle Kwasne (Pol.; AVP); Dantashatha (Sanskrit; KAB); Dar-al-Sida (Arab.; DEP; KAB); Datil Indio (Ma.; JFM); Demer Hindi (Tur.; EFS); Demer Indi (Tur.; AVP); Demirhindi (Tur.; POR); Dia Ne (Fulah; KAB); Diko (Ivo.; AVP); Dudwengtsho (Krobo; KAB); Egin (Tam.; KAB); Eginam (Tam.; KAB); Fleish (Ger.; AVP); Gidamri (Sin.; DEP; KAB); Gotu (Kan.; KAB; POR); Gurupatra (Sanskrit; KAB); Hind Hurma (Tur.; POR); Hitta (Gond.; DEP); Hoaxin (Ma.; JFM); Homer (Arab.; POR); Hommar (Arab.; Tigrinia; KAB); Hommor (Arab.; POR); Homr (Arab.; Tigrinia; KAB); Houmer (Arab.; AVP); Huaje (Ma.; JFM); Huli (Kan.; KAB; WOI); Humar (Arab.; DEP; KAB; POR); Hunase (Kan.; Mysore; DEP; KAB); Hunasehannu (Kan.; DEP; NAD); Hunese (Mysore; KAB); Hunisay (Kan.; NAD); Hunise (Kan.; KAB); Hunise Mara (Kan.; POR); Imali (Nepal; SUW); Imbli (Hindi; Pun.; NAD; POR; WOI); Imli (Ma.; Haldwani; Hindi; Nwp.; Oudh; Pun.; Urdu; DEP; JFM; KAB; NAD; POR; WOI); Indam (Tam.; KAB; POR); Indiai Datolya (Hun.; POR); Indian Date (Eng.; AVP; DEP); Indian Tamarind (Eng.; USN); Indijska Datula (Croatia; POR); Indijska Tamarinda (Slovenia; POR); Indijska Urma (Croatia; POR); Indische Dadel (Dutch; POR); Indijskiy Finik (Rus.; POR); Jibao (Por.; AVP); Joj (Kol.; DEP); Jojo (Kol.; San.; Satar; DEP; NPM); Jojo Daru (Mun.; KAB); Jubai (Por.; AVP); Jubay (Brazil; Por.; AVP; KAB); Kalamagi (Tag.; POR); Kamal (Mysore; DEP; KAB); Kamalagui (Tag.; POR); Karanji (Mysore; DEP; KAB); Kemal (Java; POR); Khaam (Laos; POR); Khatambli (Shoran; KAB); Khoua Me (Ic.; Khmer; KAB; POR); Kililo (Sakalave; KAB); Kily (Sakalave; KAB); Kilytree (Eng.; USN); Kinjam (Tam.; KAB); Koina (Oriya; KAB); Kok Mak Kham (Laos; POR); Konya (Oriya; KAB); Konyai (Oriya; WOI); Koya (Oriya; KAB); Koyam (Oriya; DEP); Koyan (Oriya; DEP); Luo Wang Zi (China; POR); Macasampaloc (Tag.; KAB); Madhurappuli (Mal.; KAB; POR); Madilo (Sakalave; KAB); Madiro (Malagasy; KAB); Magi (Burma; DEP; NAD; POR); Magyee (Burma; POR); Magyi (Burma; DEP; POR); Ma Gyi Thi (Myanmar); Magyo (Ma.; JFM); Maha Siyambala (Sin.; DEP; KAB); Ma Jee (Burma; POR); Ma Jee Pen (Burma; POR); Makam (Thai; IHB); Ma Khaam (Thai; POR); Ma Kham Wan (Thai; POR); Mak Kham (Laos; KAB; POR); Mali (Danuwar; Mooshar; NPM); Me (Ic.; Vn.; KAB; POR); Me Chua (Vn.; POR); Muguni (Tam.; KAB); Mukwaya (Congo; KAB); Musisi (Congo; KAB); Muskishi (Congo; KAB); Muthithi

(Meru; KAB); Muthumura (Kamba; KAB); Mzmusa (Taveta; KAB); Naam Maak Khaam (Laos; POR); Ntomi (Sudan; AVP); Nuli (Hindi; DEP); Odinam (Tam.; KAB); Ol Masamburai (Masai; DEP); Omlika (Oriya; KAB); Pah Chuuc (Ma.; JFM); Pahuhuc (Ma.; JFM); Pahxuhuc (Ma.; JFM); Panktiprata (Sanskrit; KAB); Pazham (Tam.; NAD); Pichhila (Sanskrit; KAB); Pohon Assam (Malaya; AVP); Polli (Mal.; DEP); Pollium (Mysore; DEP); Pousga (Ivo.; AVP); Puli (Mal.; Tam.; DEP; KAB; POR; WOI); Pulia (Tam.; DEP); Pulinje (Coorg; KAB); Puliya Palam (Tam.; NAD); Puliya Pasham (Mal.; Tam.; DEP); Puliya (Tam.; NAD); Punke (Tulu; KAB); Sabara (Arab.; DEP; KAB); Salomagi (Tag.; POR); Salomague (Ilo.; DEP); Salumagui (Ilo.; DEP); Sambac (Bicol; KAB); Sambag (Vis.; KAB); Sambagui (Vis.; KAB); Samia (Sudan; AVP); Sampalagui (Bicol; Vis.; KAB); Sampaloc (Bicol; Pam.; Tag.; KAB); Sampalok (Tag.; POR); Sanjivagarana (Tam.; KAB); Sarvamda (Sanskrit; POR); Satitarrai (Tam.; KAB); Sauerdatteln (Ger.; AVP; POR); Sbar (Arab.; POR); Semiya (Sudan; AVP); Sevvarai (Tam.; KAB); Shakachukrika (Sanskrit; KAB); Shenta (Saora; KAB); Sindagam (Tam.; KAB); Sindam (Tam.; KAB); Sinduram (Tam.; KAB); Sinja (Mal.; Tel.; KAB; POR); Sinjam (Tam.; KAB); Sinta (Tel.; KAB; POR); Sintachettu (Tel.; WOI); Siri (Tam.; KAB); Sitta (Gond.; DEP; KAB); Siyambula (Sin.; DEP; KAB; NAD; POR); Siyembela (Sin.; DEP; KAB; NAD); Suan Dou (China; POR); Suan Jiao (Pin.; DAA); Suchakrika (Sanskrit; KAB); Sukram (Mal.; KAB); Sukta (Sanskrit; KAB); Sumalagui (Vis.; KAB); Sutintidi (Sanskrit; KAB); Swal (Congo; AVP); Tamaindo (Por.; KAB); Tamare-Hindi (Arab.; DEP); Tamaren (Creole; Haiti; VOD); Tamaren Fran (Creole; Haiti; VOD); Tamar-i-Hindi (Iran; DEP; KAB); Tamarijn (Dutch; Ma.; JFM; POR); Tamarin (Den.; Greek; AVP; JFM; POR); Tamarind (Czech.; Eng.; JFM; NPM; POR); Tamarindade (Sp.; AVP); Tamarinde (Ma.; JFM); Tamarindeboom (Dutch; EFS); Tamarindeiro (Por.; KAB); Tamarindenbaum (Dutch; KAB); Tamarindenboom (Dutch; KAB); Tamarindeiro (Por.; KAB); Tamarindi (Fin.; Ger.; NAD; POR); Tamar Indien (Fr.; KAB); Tamarind Indiiskii (Rus.; POR); Tamarindipuu (Estonia; POR); Tamarandizio (It.; POR); Tamarindo (Brazil; Cuba; It.; Japan; Peru; Sp.; Swe.; JFM; POR; RyM); Tamarindusz Gyümölcs (Hun.; POR); Tamarindy (Slovakia; POR); Tamarinier (Fr.; Haiti; Réunion; AVP; KAB; NAD); Tamarinier des Bas (Réunion; KAB); Tamarinier des Indes (Ma.; AVP; JFM); Tamarintraed (Swe.; KAB); Tamarintraee (Den.; KAB); Tamarinyé (Creole; Haiti; VOD); Tamaro (It.; KAB); Tamarynd (Pol.; POR); Tambarin (Por.; POR); Tambaring (Malaya; POR); Tame Tamarind (Ma.; JFM); Tamir-i-Hind (Arab.; Iran; Kas.; NAD; POR); Tamarinyé (Creole; VOD); Támparanu (Garifuna; IED); Tamre Hendi (Iran; POR); Tamrisi (Fanti; KAB); Tamru'lhindi (Hindi; DEP); Tangkal Asem (Sunda; IHB); Tate Amilo (Nepal; NPM); Tchwa (Congo; AVP); Temirhindi (Tur.; POR); Tentrani (Sanskrit; DEP); Tentul (Ben.; DEP; NAD; WOI); Tentuli (Ben.; Oriya; DEP; KAB; NAD; POR; WOI); Tetai (Ben.; DEP); Tetara (Danuwar; NPM); Teteli (Assam; DEP; POR); Teter (Hindi; DEP; KAB); Tetor (Danuwar; NPM); Tetuli (Assam; WOI); Tamar Hindi (Arab.; AVP); Tindiram (Tam.; KAB); Tindiruni (Tam.; KAB); Tintiddii (Sanskrit; POR); Tintidi (Oriya; Sanskrit; DEP; KAB; NAD); Tintidika (Sanskrit; KAB); Tintil (Ben.; DEP; NAD); Tintili (Sanskrit; DEP; KAB; NAD); Tintiri (Ben.; Sanskrit; DEP; NAD; POR); Tintrani (Sanskrit; NAD); Tintrini (Mal.; Sanskrit; Tel.; KAB); Tintrini Kamu (Tel.; KAB); Tinturi (Ben.; DEP); Titari (Majhi; Nepal; Raj.; NPM); Titis Paun (Newari; NPM); Titri (Nepal; DEP); Titrii (Nepal; POR); Tittidi (Sanskrit; KAB); Tomaren (Creole; Haiti; VOD); Tomarin (Haiti; AVP); Tombe (Malinki; KAB); Tomi (Ivo.; Sudan; AVP); Tõmmar (Arab.; Tigrinia; KAB); Tray Me (Vn.; POR); Tsamiya (Hausa; KAB); Tumiri Hindi (Iran; AVP); Ukwaju (Swahili; POR); Umbli (Arab.; DEP; KAB); Valampuli (Mal.; KAB); Veddi (Khond; KAB); Voamatory (Sakalave; KAB); Wit Asem (Java; IHB); Yamadutika (Ewe; KAB).

### Activities:

Amebicide (f; DAV); Analgesic (1; DEP); Anthelmintic (f; DEP; KAB; SKJ); Antidiabetic (1; X15099853); Antidote (fluorine) (1; VOD); Antineuramidase (1; X15558950);

Antiophidic (1; X16847999); Antioxidant (1; TRA; X12860316); Antiscorbutic (f1; NAD); Antiseptic (f1; APA; DAD); Antispasmodic (f1; TRA); Anti-UV-B (1; X12724038); Antiviral (1; AAB); Aperient (f1; PHR); Astringent (f1; IHB; JFM; NPM; WBB); Bactericide (1; AAB; APA; TRA; X10548758); Candidicide (1; APA); Cardioprotective (1; X16330140); Carminative (f; DEP; SKJ; SUW); Chemopreventive (1; X16000233); Cicatrizant (f; WBB); Diaphoretic (f; DAD); Digestive (f; NAD; SUW); Elastase-Inhibitor (1; X15820500); Emetic (f; DAD); Febrifuge (f; APA; EFS); Fluororetic (1; X11840184); Fungicide (1; AAB; APA); Hepatotropic (1; TRA); Hyaluronidase-Inhibitor (1; X16847999); Hypocholesterolemic (1; X16751124); Hypoglycemic (1; X15997092); Hypolipidemic (1; X15997092); Hypotensive (1; X16751124); Immunoprotective (1; X15603219); Insecticide (1; X15913299); Lactagogue (f; DEP); Laxative (f1; APA; EGG; JFM; PH2; RyM; SUW); Lipolytic (1; X16330140); Metalloproteinase-Inhibitor (1; X16847999); Orexigenic (f; MAD); Purgative (f; DAD; IHB; JFM); Refrigerant (f1; APA; SUW); Schistosomicide (1; AAB; APA); Serine Protease- Inhibitor (1; X15820500; X16847999); Sunscreen (1; X15603219); Tonic (f; JFM; NPM); Trypsin-Inhibitor (1; X15913299); Vasodilator (1; TRA); Vermifuge (f1; APA); Vulnerary (f; VOD).

### Indications:

Abscesses (f; WBB); Adenopathy (f; JLH); Alcoholism (f; PH2); Amebiasis (f; DAV); Amenorrhea (f; KAB; WBB); Anorexia (f; KAP; MAD; VOD); Aphtha (f; NAD); Apoplexy (f; DEP); Arteriosclerosis (f; EGG; X16330140); Arthrosis (f; DAD; NPM); Asthma (f; DAD; KAB; NPM; VOD; WBB); Atony (f; NAD); *Bacillus* (1; X10548758); Bacteria (1; AAB; TRA); Bilioussness (f; DEP; KAB; SUW; WOI); Bites (f; AAB); Bleeding (f; JFM; KAP; MAD; RyM); BO (f; KAB); Boils (f; AAB; DAD; DEP; IHB; NPM; WOI); Burkholderia (1; X16518004); Cancer (f; JLH; KAB); Cancer, abdomen (f; JLH); Cancer, colon (f; JLH); Cancer, gland (f; JLH); Cancer, spleen (f; JLH); Cancer, uterus (f; JLH); Cancer, vagina (f; JLH); Candidiasis (1; APA); Chills (f; DAD; JFM); Cholecystosis (f1; HH2; PHR; PH2); Cholera (1; AAB); Colds (f; JFM; NPM); Colic (f; AAB); Conjunctivosis (f; DAD; IHB; JFM; KAB; NPM; VOD); Constipation (f1; APA; PH2; VOD); Coughs (f; JFM; NPM; SKJ); Dermatoses (f; AAB; IHB); Diabetes (f1; JFM; X15099853; X15997092); Diarrhea (f1; APA; NPM); Dizziness (f; HH2); Dysentery (f; DAD; DEP; JFM; NPM; VOD; WBB); Dysmenorrhea (f; MAD); Dyspepsia (f; KAB; SKJ); Dysuria (f; GMH; KAB); Earache (f; KAB); Eczema (f; MAD); Edema (f; WOI); Enterosis (f; NAD; VOD; WBB); Erysipelas (f; DAD); *Escherichia* (1; APA; X16492531); Fever (f1; APA; HH2; JFM; NPM; PHR; PH2; SUW; VOD); Fluorosis (1; VOD; X11840184); Fungus (1; APA); Furuncle (f; WBB); Gas (f; SKJ); Gastrosis (f; KAB; NAD; VOD); Gingivitis (f; DAD; WBB); Gonorrhoea (f; WBB); Hangover (f; DEP; PH2; TGP); Headache (f; MAD); Heartburn (f; MAD); Hemorrhoids (f; DAD; DEP; PH2; WBB); Hepatosis (f; HH2; KAB; PHR; PH2; VOD); High Blood Pressure (f1; EGG; X16751124); High Cholesterol (1; X16751124); Hyperemesis gravidarum (f; BOW); Infection (f1; AAB; DAD; VOD); Inflammation (f; DAD; DEP; NAD; NPM); Intoxication (f; DAD; DEP; KAB; PH2); Itch (f; MAD); Jaundice (f1; DAD; JFM; MAD; TRA; WBB); Keratitis (1; X15328102); Leprosy (f; DAD; WBB); Leukorrhoea (f; MAD); Malaria (f; DAD; VOD; WBB); Measles (f; JFM); Melioidosis (1; X16518004); Morning Sickness (f; AAB; APA); Mucososis (f; IHB); Myalgia (f; SKJ); Mycosis (1; AAB); Nausea (f1; APA); Nephrosis (f; VOD); Ophthalmia (f; DAD); Pain (f1; DEP; JFM; NPM); Paralysis (f; DAD; KAB); Pharyngosis (f; PH2; VOD); Pulmonosis (f; DAD); Rashes (f; AAB); Respirosis (f; DAD); Rheumatism (f; DAD; IHB; NPM; VOD; WBB); Ringworm (f1; APA; KAB); *Salmonella* (1; AAB); Scabies (f; KAB); Schistosomiasis (1; AAB; APA); Smallpox (f; KAB); Snake Bite (f; KAB; WBB); Sores (f; AAB; IHB; NPM); Sore Throat (f; AAB; DEP; JFM); Splenomegaly (f; NAD); Splenosis (f; JLH); Sprains (f; VOD); *Staphylococcus* (1; AAB; APA; X16492531); Stings (f; SKJ); Stomachache (f; PH2; SKJ); Stomatosis (f; IHB; KAB);

PH2); Sunburn (1; X15603219); Sunstroke (f; DEP; NAD; SKJ); Swelling (f; HH2; KAB; WOI); Syphilis (f; SKJ); Trypanosoma (f; JE79:279); Tuberculosis (f; VOD); Typhus (f; VOD); Ulcers (f; DAD); UTIs (f; DAD; TRA); Uvulosis (f; KAB); VD (f; WBB); Vertigo (f; HH2; KAB); *Vibrio* (1; AAB); Vomiting (f; PH2); Worms (f1; APA; DAD; VOD); Wounds (f; AAB; IHB; NPM; VOD); Yeast (1; APA; X10548758); Yellow Fever (f; VOD).

### Dosages:

FNFF = !! Pulp of ripe fruits a great item for making beverages, chutneys, and sauces, the green fruits pickled and eaten; some Indians mix ripe pulp with ashes to make a sauce called “kake pushi” (cat feces). Unroasted seeds made into flour or coffee substitutes, the seedlings eaten as a vegetable. Flowers considered a delicacy and the bark chewed as a masticatory. (FAC; JAD; JFM). 4–8 g /day (APA; PNC); 4–30 g (HHB); 10–50 g tamarind paste (HH2; PHR; PH2); 1–3 g fruit pulp (KAP); 1–2 g powdered seed (KAP); 4 tsp leaf decoction 3×/day for cold & cough (NPM).

- Arubans take leaf decoction for cold and cough (JFM).
- Asian Indians mix pulp with cold water and apply to shaved head in apoplexy or sunstroke (DEP).
- Asian Indians poultice flowers onto conjunctival inflammation (DEP).
- Asian Indians recommend pulp for hangover, e.g., “For intoxication ... from spiritous liquors ... take of tamarind pulp, dates, raisins, pomegranate seed, fruits of *Grewia asiatica* and ripe emblic myrobalans, each 1 tola, pound them together and make an emulsion with 32 tolas of water. Dose — 2 ounces” (NAD).
- Asian Indians suggest juice of old tree taken internally to promote flow of milk (DEP).
- Asian Indians takes 10 g tamarind a day to enhance fluorine secretion (X11840184).
- Bahamans take leaf decoction with lime and sugar for fever (JFM).
- Cubans take root infusion for hemorrhage and jaundice (JFM).
- Curaçaoans drink green fruit decoction for colds (JFM), the leaf decoction for diabetes.
- Haitians boil 1 oz pulp in 1 pt water 5 min for biliousness, dyspepsia, and fever (VOD).
- Haitians use leaf decoction, with or without salt, for asthma, dyspepsia, hepatosis, pharyngosis, and worms (VOD).
- Jamaicans take leaf infusion for measles, as a wash for fever and pain (JFM).
- West Indian Tramilenyos approve the fruit pulp as antibacterial (TRA).
- West Indian Tramilenyos approve the hepatotrophic leaves for jaundice (TRA).
- Yucatanese take tamarindade as diuretic and febrifuge (JFM).

### Downsides:

Class 1 (AHP; JAD). None reported (PHR). GRAS (APA). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). “All parts of the plant contain cyanogenic glycosides which cause diarrhea and vomiting when ingested in large quantities” (VOD). There was significant risk of gallstone formation with increased use of tamarind (consumed > 3 times a week) (X16041099). As of July 2007, the FDA Poisonous Plant Database listed nine titles alluding to toxicity of this species.

### Extracts:

Reportedly kills *Aspergillus niger*, *Bacillus subtilis*, *Candida albicans*, *Escherichia coli*, *Schistosoma mansoni*, and *Staphylococcus mansonii* (APA). “In India, the delicious tamarind pulp (ca. 10 g) is being investigated to prevent fluorosis. Tamarind is known to prevent absorption of fluoride by the body. Harmful amounts of fluoride can be deposited on bone calcium between the joints sometimes leading to fluorosis and causing total immobility” (VOD). Fruit extract significantly increased the bioavailability of Ibuprofen (X14527090).

**YELLOW TRUMPET BUSH (*Tecoma stans* (L.) Juss. ex Kunth) ++****BIGNONIACEAE****Illustrations:**

fig 238 (L&amp;W)

**Synonyms:**

*Bignonia frutescens* L.; *B. stans* L.; *Gelsemium stans* Kuntze; *Stenolobium incisum* Rose & Standley; *S. stans* (L.) Seem.; *Tecoma incisa* Sweet; *T. mollis* HBK; *T. sambucifolia* Donde; *T. tronadora* (Loes.) Johnst.; fide (JTR; USN).

**Common Names:**

Barrreta (Guat.; MPG); Barreto (Ma.; JFM); Bois Caraibe (Grenada; L&W); Bois Fleurs Jaunes (Guad.; AVP; L&W); Bois Pissenlit (Fr.; Guad.; AVP; KAB); Borla de San Pedro (Ma.; Mex.; JFM; JTM); Buttercup (Ma.; JFM); Caaguiguasu (Bol.; Chiriguano; DLZ); Caballito (Col.; AVP); Campanilla Amarilla (Peru; EGG); Candelillo (Cr.; L&W); Candox (Ma.; JFM); Canlol (Ma.; JFM); Carboncillo (Cr.; L&W); Chacte (Guat.; MPG); Chakte (Ma.; JFM); Chante Timbogue (Guat.; AVP); Chevalier (Haiti; L&W); Chevalye (Creole; Haiti; VOD); Chiclobirlos (Col.; JTR); Chilca (Nic.; L&W); Chilco (Ma.; JFM); Chirlobirlos (Nic.; L&W); Cholan (Ecu.; L&W); Christmas Hope (Trin.; L&W); Ciarichero (Ma.; JFM); Copete (Pan.; L&W); Copita (Ma.; JFM); Coribee (Antigua; L&W); Corneta Amarilla (Ma.; Mex.; JFM; JTR); Elderbush (Ma.; JFM); Fleur de St. Pierre (Haiti; AHL; AVP); Fleurit Noel (St. Bart.; AVP); Flor Amarilla (Mex.; Nic.; AVP; L&W); Flor de San Andres (Sal.; AVP); Flor de San Pedro (Mex.; JTR); Flor de San Sebastien (Sal.; AVP); Florida Yellow Trumpet (Eng.; L&W); Fresmo (Ecu.); Fresnillo (Ven.; L&W); Fresno (Col.; Ecu.; JTR; L&W); Fresno Amarilla (Col.; L&W); Garacho (Ma.; JFM); Garanguay Amarillo (Arg.; Uru.; JTR); Garrocha (Arg.; Uru.; AVP; JTR); Gelkiheel (Dutch; AVP); Ginger-Thomas (Eng.; L&W); Gloria (Mex.; Sp.; L&W); Guaran (Arg.; L&W); Guaran Amarillo (Arg.; AVP); Guaran Colorado (Arg.; AVP); Guaránguarán (Arg.; Uru.; JTR; L&W); Guaranguay Amarillo (Arg.; L&W); Guaranguay Blanco (Arg.; L&W); Guiebichi (Ma.; JFM); Herbe St. Nicolas (Haiti; AHL); Hierba de San Nicolas (Mex.; AVP); Hierba de San Pedro (Mex.; AVP); Hoja de Banyo (Ma.; JFM); Huachacata (Ma.; JFM); Huahunhua (Peru; L&W; RAR); Huaranhua (Ma.; Peru; EGG; JFM); Huevo de Iguana (Ma.; JFM); Ichculili (Ma.; JFM); Kanlol (Ma.; JFM); Kelki (Ma.; JFM); Kelki Heel (Dwi.; L&W); Koranekelar (Kan.; KAB); LLuvia do Oro (Ma.; JFM); Marchucha (Sal.; L&W); Maria Luisa (Ma.; JFM); Mazorca (Ma.; Mex.; JFM; JTM); Miniyona (Ma.; JFM); Nagasambagam (Tam.; KAB); Nixtamaxochitl (Ma.; JFM); Palo de Arco (Ma.;

JFM); Palo Hueso (Col.; AVP); Patchagotla (Tel.; KAB); Puttane (Satara; KAB); Quiral (Bol.; Chiriguano; DLZ); Retama (Mex.; Sp.; L&W); Retamo (Ma.; Mex.; JFM; JTR); Roble Amarillo (Col.; Pr.; Sp.; JTR; L&W); Ruibarbo (Pr.; L&W); San Andres (Guat.; Hon.; Sal.; L&W); San Pedro (Ma.; JFM); Sardinillo (Hon.; Nic.; L&W); Saris (Bol.; Que.; DLZ); Saúco Amarillo (Cuba; Dor.; Pr.; JTR; L&W); Sauco de Jardin (Dor.; AHL); Sonnapatti (Tam.; KAB); Sornapatti (Tam.; KAB); Tache (Sal.; L&W); Tacho (Ma.; JFM); Tagualaiste (Sal.; L&W); Tajibillo (Bol.; DLZ); Taste (Sal.; JTR; L&W); Timboco (Guat.; MPG); Timboque (Guat.; MPG); Toco Toco (Bol.; L&W); Trompeta (Mex.; JTR); Trompete (Guat.; MPG); Trompetilla (Mex.; JTR); Tronador (Mex.; JTR); Tronadora (Guat.; Sp.; AH2); Trumpet-Bush (Eng.; USN); Trumpet-Flower (Eng.; USN); Tulasúchil (Ma.; Mex.; JFM; JTR); Vanilla (Cr.; AVP); Yellow-Bells (Eng.; Ocn.; AH2; USN); Yellow Blossum (Dwi.; L&W); Yellow Cedar (Vi.; L&W); Yellow-Elder (Eng.; Vi.; USN; VOD); Yellow Trumpet (Eng.; AVP); Yellow Trumpet-Bush (Eng.; Scn.; AH2; USN).

### Activities:

Analgesic (f; MPG); Antiarteriosclerotic (1; MPG); Antidiabetic (1; MPG); Antidote (f; KAB); Antiedemic (f; JFM); Antihyperglycemic (1; X12641333); Antiseptic (1; X7604753); Antispasmodic (1; MPG); Aperitive (f; MPG); Cathartic (f; MPG); Diuretic (f1; DAV; EGG; MPG; VOD); Febrifuge (f; MPG); Hypocholesterolemic (1; X13679170); Hypoglycemic (1; DAV; X13679170); Pectoral (f; EGG); Sudorific (f; EGG; MPG); Tonic (f1; DAV; MPG); Vermifuge (f; MPG; JTR).

### Indications:

Alcoholism (f; DLZ); Anorexia (f; MPG); Arteriosclerosis (1; MPG); Atony (f; JFM); *Candida* (1; X7604753); Colic (f; MPG); Cramps (f1; BEJ; MPG); Dermatitis (f; EGG); Diabetes (f1; DAV; MPG; X12641333; X13679170); Diarrhea (f; DLZ; EGG); Dysentery (f; MPG); Dysmenorrhea (f; BEJ); Edema (f; JFM; MPG); Enterosis (f; MPG); Fever (f; MPG); Fungus (1; X7604753); Gastrosis (f1; MPG); Hangover (f; JFM); Headache (f; MPG); Hemorrhoids (f; MPG); Hepatitis (f; DLZ); High Cholesterol (1; X13679170); Infection (1; X7604753); Malaria (f; MPG); Mycosis (1; X7604753); Nephrosis (f; MPG); Neurosis (f; BEJ); Pain (f; MPG); Rheumatism (f; MPG); Snake Bite (f; KAB); Stings (f; KAB); Stomachache (f; IED); Swelling (f; MPG); Syphilis (f1; DAV; MPG); VD (f1; DAV; MPG; VOD); Worms (f; MPG; JTR); Wounds (f; EGG); Yeast (1; X7604753).

### Dosages:

FNFF = !? Roots made into beer in Guatemala (JFM).

- Argentinians boil a handful crushed roots 15 min in 0.5 liter water, as diuretic (JFM).
- Asian Indians apply ground roots with lemon juice to rat and snake bites and scorpion stings, also taking a tbspc internally, though not backed up by science (KAB).
- Bolivians take leaf infusion for alcoholic gastritis, decoction for diarrhea and dysentery (DLZ).
- Cubans take the plant for diabetes (JTR).
- Curaçaoans put leaves in children's shoe at 3 p.m. to draw down fever (JFM).
- Guatemalans drink shoot decoction for edema and headache, as a wash for swollen legs (JFM).
- Haitians drink leaf tea for stomachache and diabetes (VOD); shown to lower blood sugar (FAO; MPG).
- Mexicans take leaf decoction for alcoholic gastritis, diabetes, GI atony, and stomachache (JFM; JTR).
- Peruvians apply powdered flowers and leaves to skin afflictions (EGG).
- Peruvians take floral tea with honey as diuretic, pectoral, and sudorific (EGG).
- Peruvians wash wounds with leaf tea (EGG).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed five titles alluding to toxicity of this species.

**TOE NEGRO (*Teliostachya lanceolata* Nees.) X****ACANTHACEAE****Common Names:**

Toe Negro (Peru; Sp.; LOR; SOU).

**Activities:**

Hallucinogenic (f; SAR).

**Indications:**

Gastrosis (f; SAR); Stomachache (f; SAR).

**Dosages:**

FNFF = X. If used alone, 10 leaves are boiled 7 hr; more usually an additive to ayahuasca (SOU).

**Downsides:**

Tough, reputedly hallucinogenic, may cause loss of vision for 3 days (SOU).

**CUBE SINAPOU (*Tephrosia sinapou* (Buc'hoz) A. Chev.) +****FABACEAE****Illustrations:**

p 159 (MD2)

**Synonyms:**

*Cracca toxicaria* (Sw.) Kuntze; *Galega sinapou* Buc'hoz; *G. toxicaria* Sw.; *Tephrosia toxicaria* (Sw.) Pers.; fide (USN).

**Notes:**

Knowing that leishmaniasis (“uta” in Madre de Dios) is of interest to Bill and Melinda Gates, I quote this passage over “Lishmaniansios” until I can obtain a clear translation. They cook a little of the juicy milk from the roots until it thickens: “Luego se enpapa una gasa o telita y se coloca durante la noche sobre la uta” (MD2).

**Common Names:**

Anil Bravo (Brazil; RAR); Asá (Ese'ēja; MD2); Ashá (Amahuaca; MD2); Asityuna (Glibi; GMJ); Barbasco (Sp.; MD2; USN); Barbasco de Raiz (Ven.; RAR); Counami (Guy.; RAR); Cube (Peru; Sp.; LOR; MDD; USN); Cube Ordianrio (Peru; SOU); Cube Sinapou (Peru; JAD); Doekali (Guy.; RAR); Eo (Secoya; Siconá; SAR); Huasca Barbasco (Peru; RAR; SOU); Kkuma (Ven.; RAR); Komo (Piro; Yine; MD2); Kouna (Ven.; RAR); Kumo (Amarakaeri; Huachipaeri; MD2); Kumu (Ven.; RAR); Kuogi (Matsigenka; MD2); Motuy Cube (Brazil; RAR); Muyuy Cube (Brazil; RAR); Onabouboue (Brazil; RAR); Shatá (Amahuaca; Ese'ēja; MD2); Sinapou (Creole; Guy.; GMJ); Sinapu (Palikur; GMJ); Timbo (Col.; Sp.; USN); Timbo de Cayenne (Brazil; RAR); Timbo Sacada (Por.; GMJ); Timbouva (Brazil; RAR); Tingui (Brazil; RAR); Tingui de Cayenne (Brazil; RAR); Tirana Barbasco (Peru; RAR); Wanamoe (Guy.; RAR); Wara (Shipibo/Conibo; MD2); Wasko (Shipibo/Conibo; MD2); Xata (Amahuaca; RAR); Yarroconalli (Peru; RAR; USN). (Nscn).



**Activities:**

Antirheumatic (f; SOU); Antiseptic (f; MD2); Cardiac (f; RAR); Fungicide (f; MD2); Narcotic (f; RAR); Piscicide (f; RAR); Toxic (f; RAR).

**Indications:**

Arthrosis (f; SOU); Bleorrhagia (f; GMJ); Cardiopathy (f; RAR); Dermatitis (f; MD2); Fungus (f; MD2); Infection (f; MD2); *Leishmania* (f; MD2); Rheumatism (f; SOU); Ringworm (f; MD2); Snake Bite (f; GMJ); Syphilis (f; GMJ); VD (f; GMJ).

**Dosages:**

FNFF = ?

**Downsides:**

Dangerous plant to be used only by experienced herbalists; not for children or pregnant women, old or sick persons (MD2). As of July 2007, the FDA Poisonous Plant Database listed 14 titles alluding to toxicity of this species.

### **BOBO (*Tessaria integrifolia* Ruiz & Pav.) ++**

#### ASTERACEAE

**Illustrations:**

p 229 (MD2)

**Notes:**

This one often forms pure stands along the banks of Rio Madre de Dios.

**Common Names:**

Bobo (Bol.; DLZ); Guinyandi (Chiriguano; DLZ); Huapariu (Peru; Sp.; LOR); Kapana (Piro; Yine; MD2); Mbarai (Amarakaeri; MD2); Pajaro Bobo (Chiriguano; Peru; Sp.; DLZ; LOR; MDD); Palo Bobo (Bol.; DLZ); Qallaqasa (Aym.; DLZ); Tama Raho (Amahuaca; RAR); Tambara'o (Amahuaca; MD2); Tseco (Peru; Sp.; LOR); Tsekoo (Shipibo/Conibo; MD2); Yijo (Ese'ija; MD2). (Nscn).

**Activities:**

Analgesic (f; MD2); Antiinflammatory (f1; JNP58:639; X7623043); Antiviral (1; X14595590); Febrifuge (f; MD2); Litholytic (f; DAV).

**Indications:**

Asthma (f; DAV; DLZ; RAR); Colds (f; MD2); Fever (f; DAV; MD2); Gallstones (f; DAV); Hepatosis (f; DAV; SOU); Inflammation (f1; DAV; JNP58:639; SOU; X7623043); Kidney Stones (f; DAV); Malaria (f; MD2); Nephrosis (f; DAV; SOU); Pain (f; MD2); Stings (f; MD2); Stones (f; DAV); Viruses (1; X14595590).

**Dosages:**

FNFF = ?

- Madre de Dios Peruvians plaster heated powdered bark and leaves on stingray stings (MD2).
- Madre de Dios Peruvians take bark a/o root macerate for colds (MD2).
- Madre de Dios Peruvians take leaf tea for kidney pains and malaria (MD2).

**Extracts:**

3,5-Di-O-caffeoylquinic and 4,5-di-O-caffeoylquinic acids exhibited antiinflammatory activity *in vitro* (X7623043).

**NEW ZEALAND SPINACH (*Tetragonia tetragonoides* (Pall.) Kuntze) ++****AIZOACEAE****Synonyms:**

*Demidovia tetragonoides* Pall.; *Tetragonia expansa* Murray; fide (USN).

**Common Names:**

Baguio Spinach (Pi.; WBB); Epinarde de la Nouvelle-Zelande (Fr.; UPW); Fan Xing (China; USN); Neuseelandspinat (Ger.; USN); New Zealand-Spinach (Eng.; USN); Tarauna (JLH); Tétragone (Fr.; UPW); Tétragone Cornue (Fr.; USN); Tsuru-na (Japan; USN); Warrigal-Cabbage (Eng.; USN).

**Activities:**

Antioxidant (1; X12628508); Antiscorbutic (f; UPW); Antiulcer (1; X12628508; X6640798); Larvicide (f; WOI); Poison (1; USN); Stomachic (f; DAW).

**Indications:**

Cancer (f; JLH; WOI); Cancer, stomach (f; JLH); Enterosis (f; UPW; WOI); Gastrosis (f; JLH); Inflammation (1; X12628508); Pulmonosis (f; UPW; WOI); Scurvy (1; WOI); Ulcers (1; X12628508; X6640798).

**Dosages:**

FNFF = !!!

**Extracts:**

Antiulcer activity traces to two cerebrosides; anti-inflammatory activity traces to novel water-soluble polysaccharides, as well as antioxidant phenylpropanoids including caffeic acid (X12628508).

**WHITE CATNIP (*Teucrium cubense* Jacq.) +****LAMIACEAE****Common Names:**

Agrimonia (Cuba; JTR); Jemimiah Bush (Wi.; JFM); White Capnit (Ma.; JFM); White Catnip (Ma.; JFM); Yerba del Pasma (Cuba; JFM; JTR). (Nscn).

**Activities:**

Abortifacient (f; JTR); Amebicide (1; JFM); Antidiabetic (1; X1819981); Antiinflammatory (f; JFM); Aphrodisiac (f; JFM); Febrifuge (f; JFM; JTR); Hypoglycemic (1; X1819981); Tonic (f; JFM; JTR).

**Indications:**

Amebiasis (1; JFM); Childbirth (f; JFM); Chills (f; JFM); Colds (f; JFM); Dermatitis (f; JFM); Diabetes (1; X1819981); Dysentery (f; JFM); Fever (f; JFM; JTR); Gastrosis (f; JFM); Impotence (f; JFM); Inflammation (f; JFM); Itch (f; JFM); Labor (f; JFM); Malaria (f; JFM); Pain (f; JFM); Splenosis (f; JFM; JTR); Stomachache (f; JFM; JTR); Swelling (f; JFM; JTR).

**Dosages:**

FNFF = ?

- Bahamans use to bathe itch (JFM).
- Caicos Islanders take decoction for cold, fever, labor, and stomachache (JFM).
- Cubans take decoction as a tonic febrifuge after colds or chills, used for impotence, stomachache, inflammation, and splenosis following malaria, also to bathe swollen legs (JFM).
- Mexicans take plant decoction for dysentery and stomachache (JFM).

**Extracts:**

Plant extract hypoglycemic in tested rabbits, reducing area under glucose tolerance curve 19.4% (X1819981).

**CACAO (*Theobroma cacao* L.) ++****STERCULIACEAE****Illustrations:**

p 134 (CR2); p 325 (TRA); p 343 (L&W)

**Synonyms:**

*Theobroma sativum* (Aubl.) Lign. & Le Bey; fide (USN).

**Notes:**

A demure young gringa with latino eyes, long associated with our Amazonian ecotours to the Amazon, asked me to come up with some comment to make our ecotourists feel intimate with the rainforest. It didn't take long for me to remember that most, if not all, suppositories contained cocoa butter, often inserted "ino the rectum and vagina to relieve irritations." (JFM). Our Amazon haunts are the center of diversity for the genus *Theobroma*, food of the gods. In a sense one rainforest product, cocoa butter, had been in the intimate cavities of many of our ecotourists. I trust none of them used an earlier polyherbal suppository containing cocaine hydrochlorate, ergot, and cocoa butter, used in suppositories according to an 1881 pharmaceutical manual (HC052318–205).

**Common Names:**

Albero della Cacao (It.; EFS); Arbol de Cacao (Sp.; KAB); Bakáu (Aguaruna; EGG; SOU); Bana Torampi (Shipibo/Conibo; EGG); Cabasse (Fr.; NAD); Cabosse (Fr.; AVP); Cacacoatl (Mex.; KAB); Cacahua (Pano; EGG; SOU); Cacahua Caspi (Que.; EGG; RAR; SOU); Caca-huatl (Mex.; Nahuatl; AVP; JN130:2057S); Caca huillo (Que.; Sa.; EGG; RAR; SOU); Cacao (Ecu.; Eng.; It.; Maya; Por.; Sa.; Sur.; CR2; DAG; SOU; USN); Cacao Arisco (Sa.; EGG; SOU); Cacaobaum (Ger.; EFS); Cacaoboom (Dutch; EFS); Cacao Común (Sa.; EGG; RAR; SOU); Cacao Criollo (Cr.; Dor.; AVP; EGG); Cacao de Monte (Ecu.; AVP); Cacao Dulce (Ma.; EGG; JFM); Cacao Forastero (Dor.; AVP); Cacao Morado (Dor.; AVP); Cacao Silvestre (Ma.; Sa.; EGG; JFM; RAR; SOU); Cacaotero (Ma.; JFM); Cacaotier (Fr.; Rom.; EFS; KAB); Cacao Uchpa Cacao (Sa.; RAR); Cacaoyer (Fr.; Haiti; AVP; L&W; USN); Cacaoyer Commun (Fr.; Haiti; AVP); Cacaoyer Ordinaire (Fr.; Haiti; AVP); Cacaozeiro (Por.; AVP); Cacateiro (Brazil;

Por.; AVP; L&W); Cacao (Brazil; Choco; IED; USN); Caca'u (Mex.; Popoluca; JN130:2057S); Caca Uatl (Por.; AVP); Cacao Comun (Por.; AVP); Cacaueiro (Ma.; AVP); Cacao (It.; AVP); Caceteiro (Sp.; AVP); Caco (Ma.; JAM); Cacu (Mex.; Mixe; JN130:2057S); Cágau (Mex.; Popoluca; JN130:2057S); Cakawa (Mex.; Zoque; JN130:2057S); Calabacillo (Cr.; AVP); Canga (Piro; EGG; SOU); Caotier (Fr.; AVP); Ccahua (Pano; EGG; RAR; SOU); Ccarhua (Pano; EGG); Chamanismo Kagka (Piro; RAR); Chaxon Runxan (Amahuaca; EGG; RAR); Chepere (Ticuna; SOU); Chocolate (Eng.; Pr.; AVP); Chocolate Tree (Eng.; JFM); Chocolathgas (Sin.; NAD); Cígaa (Mex.; Mixe; JN130:2057S); Cocoa (Ma.; Sa.; JFM; RAR; USN); Cocomaram (Sin.; NAD); Cücü (Bel.; Maya; AVP; JN130:2057S); Cuculat (Ma.; JFM); Cumala (Peru; Sa.; AVP; EGG; RAR); Cupu (Por.; AVP); Cupuassu (Brazil; RAR); Cupuhi (Brazil; RAR); Cushta (Sal.; AVP); Drzewo Kakaore (Pol.; AVP); Dsohuero (Culina; EGG; RAR); Gabu (Garifuna; IED); Haba de Mejico (Sp.; KAB); Kacaobaum (Ger.; EFS); Kagka (Piro; EGG); Kakao (Creole; Ger.; Haiti; Hun.; Swe.; Tur.; EFS; KAB; VOD); Kaka'o (Ger.; AVP); Kakaobum (Ger.; AVP); Kakaw (Mex.; Yucatek; JN130:2057S); Kakaovoi Derevo (Rus.; KAB); Kakaoyè (Creole; Haiti; VOD); Ka:ka:w (Maya; JN130:2057S); Kakawa (Mex.; Zoque; JN130:2057S); Kakawo (Creole; Haiti; VOD); Kakay (Miskito; ULW); Kako (Mex.; AVP); Kicob (Ma.; JFM); Kikou (Ma.; JFM); Kimituki (Campa; SOU); Kököw (Maya; JN130:2057S); Kokuszfa (Hun.; KAB); Kuku (Maya; JN130:2057S); Macambo (Peru; Sp.; AVP; EGG; RAR); Musena (Huitoto; EGG; RAR; SOU); Nucan (Cashibo; SOU); Pacxoc (Ma.; JFM); Pataste (Cr.; AVP); Pataxte (Guat.; AVP); Pokok Choklat (Malaya; IHB); Pyè Kakao (Creole; Haiti; VOD); Quemitoqui (Ashaninka; Sa.; EGG; RAR; SOU); Sarguiminiqui (Antis; Ashaninka; Campa; EGG; RAR; SOU); Sarhuiminiqui (Antis; Campo; SOU); Sariguieminiqui (Matsigenka; EGG; RAR); Sariyemeniqui (Matsigenka; EGG; RAR; SOU); Sia (Cuna; IED); Teta Negra (Cr.; AVP); Turampi (Pano; EGG; RAR; SOU); Turanqui (Shipibo; EGG; RAR; SOU); Turanti (Conibo; EGG; RAR; SOU); Uchpa Cacao (Peru; EGG); Wild Cacao (Bel.; AVP); Xau (Ma.; JFM); Zukurate (Choco; IED).

### Activities:

A-beta-Blocker (1; X15740021); Allergenic (1; CRC); Analeptic (1; NAD); Analgesic (f; JN130:2057S); Antiadherent (1; X15154923); Antiaggregant (1; X15190043; X16218501); Anti-alzheimeran (1; X15740021); Antiapoptotic (1; X15740021); Anticariogenic (1; X15154923); Antidepressant (1; AT7(5):121; FNF; X14606481); Antidote (f; JN130:2057S); Antiglucosyltransferase (1; X11759010); Antihemostatic (1; X16218501); Antiinflammatory (f1; EGG; X12097654; X16248545); Antileukotriene (1; X12097654); AntiMDR (1; X16153408); Antimutagenic (1; X12169385); Antiobesity (1; X15850966); Antioxidant (1; APA; X15190043); Antiperoxidant (1; X16198231); Antiplaque (1; X15154923); Antiplatelet (1; X15190043); Antiproliferant (1; X11741742; X15827326); Antiseptic (f; CRC; DAD; JFM); Antitumor (f1; JFM; X15117546; X15827326); Aphrodisiac (1; APA; HAD); Arteriodilator (1; BOW); Astringent (1; KOM; PH2); Bactericide (1; APA; X15154923); Broncholytic (1; PHR; PH2); Bronchorelaxant (1; TRA); cAMP-Genic (1; X15790999); Cardioprotective (1; X15190043; X15790999); Cardiotonic (f1; EGG; PHR; PH2; TRA); Cerebrotonic (f1; JN130:2057S); Chemopreventive (1; X15740021); CNS-Stimulant (1; APA; TRA); Comedogenic (1; CRC); Deobstruent (f; JN130:2057S); Digestive (f; APA); Diuretic (f1; APA; EGG; PHR; PH2; RAR; TRA); Dopaminergic (1; AT7(5):121; FNF); Ecboic (f; CRC; DAD); Emmenagogue (f; CRC; DAD); Emollient (1; APA; CRC); Euphoriant (1; AT7(5):121; FNF); Hepatoprotective (1; X15117546); Hypoglycemic (1; JN133:3149); Hypotensive (1; BOW; GMH); Immunomodulator (1; X10917928; X16218501); Insectifuge (1; X12616944); Insulinogenic (1; JN133:3149); Interleukin-Inhibitor (1; X16248545); Interleukinogenic (1; X10917928); Iron-Chelator (1; X16198231); Lactagogue (f; EGG; NAD; SOU); Lipolytic (1; BRU; FNF); 12-Lipoxygenase-Inhibitor (1; X11843182); 15-Lipoxygenase-Inhibitor (1; X11843182); 5-Lipoxygenase-Inhibitor (1; X12097654); Myocontractant (1; VOD); Myorelaxant (1; PHR; PH2); Neuroprotective (1; X15740021); NO-Genic (1; X14654748); NO-Inhibitor (1; X16248545); Parasiticide (f; CRC; DAD); Prooxidant (1; X16198231); S-Adenosylmethionine-

decarboxylase Inhibitor (1; X11741742); Secretolytic (f; PH2); Sedative (f; EGG); Stimulant (f1; APA; PH2; VOD); Thermogenic (1; X15850966); Thyroregulator (f; HH2; PH2); TNFalpha-Inhibitor (1; X16248545); Tonic (f; KOM; PHR); Vasodilator (1; JFM; PHR; PH2; X14654748); Vermifuge (f; JN130:2057S); Vulnerary (f; EGG; RAR).

### Indications:

ADD (f1; JN130:2057S); Adenopathy (f; HH2); Aging (f; JN130:2057S); Alopecia (f; CRC); Alzheimer's (1; X15740021); Anemia (f1; X16039811); Angina (f1; BOW; JN130:2057S); Anorexia (f1; JN130:2057S); Arthrosis (f1; X10917928); Asthma (1; APA; DAV); Bacteria (1; X11759010); Bites (f; DAD); Bleeding (f; IED); Bronchosis (f1; APA; SOU); Burns (f; APA; IED; JFM); Cachexia (f; JN130:2057S); Cancer (f1; JFM; X15117546); Cancer, breast (f1; JLH; X15827326); Cancer, colon (1; X11741742); Cancer, liver (1; JFM; X15117546); Cancer, lung (1; X12609709); Cancer, pancreas (1; X12169385); Cancer, thyroid (1; X12609709); Cardiopathy (1; X15190043; X12944249); Caries (1; X15154923); Cataract (1; X14709774); Catarrh (f; JN130:2057S); Cellulite (1; BRU; FNF; HAD); Chafing (f; APA; FEL); Cheilosis (f; JN130:2057S); Childbirth (f; CRC; DAD; JFM); Chlorosis (f; JN130:2057S); Colds (f1; APA); Colic (f; JN130:2057S); Congestion (1; APA); Consumption (f; JN130:2057S); Convulsions (f; SOU); Coughs (f; APA; CRC; DAD; EGG; SOU); Cystosis (f; KOM; PHR; PH2); Debility (f1; JN130:2057S; TRA); Depression (f1; AT7(5):121; FNF); Dermatosis (f; EGG; IED; ULW); Diabetes (f1; JN133:3149; KOM; PHR; PH2); Diarrhea (f1; APA; KOM; PHR; PH2); Dysentery (f; EGG); Dyslactea (f; JN130:2057S); Dysmenorrhea (f; JN130:2057S); Dyspepsia (f; JN130:2057S); Dyspnea (f1; JN130:2057S); Eczema (f1; DAV; X10917928); Enterosis (1; APA; PHR; PH2); Enuresis (f; SOU); Ergotism (f; JN130:2057S); Eruption (f; JFM); Fatigue (f1; JN130:2057S); Fever (f; APA; CRC); Flu (1; APA); Frigidity (1; JN130:2057S); Gas (f; JN130:2057S); Gastrosis (f; JN130:2057S); Gingivosis (f; JN130:2057S); Gout (1; JN130:2057S); Gray Hair (f; JN130:2057S); Halitosis (f; JN130:2057S); Hangover (f; JN130:2057S); Hemorrhoids (f1; CRC; EGG; RAR); Hepatosis (f; PHR; PH2); High Blood Pressure (1; BOW; EFS; GMH); Hoarseness (f; JN130:2057S); Hyperglycemia (1; JN133:3149); Hyperkinesis (1; DAD); Hypochondria (f; JN130:2057S); Impotence (1; FNF; JN130:2057S); Infection (f1; APA; PHR; X16153408); Inflammation (f1; EGG; X12097654); Insomnia (f; JN130:2057S); Itch (f; EGG); Jaundice (f; JN130:2057S); Laryngosis (f; SOU); Lassitude (1; JN130:2057S); Leukorrhea (f; JN130:2057S); Malaria (f; CRC); Mastalgia (f; APA; CRC; JFM); Myalgia (f; EGG); Myosis (f; JN130:2057S); Nausea (f; JN130:2057S); Nephrosis (f; AHL; CRC; PHR; PH2); Nervousness (f; JN130:2057S); Nipple (f; FEL); Obesity (f1; BRU; FNF; X15850966); Ophthalmia (f; CRC; DAD); Pain (f; JN130:2057S); Palpitations (f; JN130:2057S); Parturition (f; APA); Pertussis (f; EGG; RAR; SOU); Pregnancy (f; APA); Proctosis (f; JFM); Pulmonosis (f; SOU); Rheumatism (f1; CRC; X10917928); Scabies (f; DAV); Screw Worms (f; JFM); Snake Bite (f; CRC); *Staphylococcus* (1; X16153408); Stings (f1; JN130:2057S); Stomatosis (f; JN130:2057S); Stones (f; JN130:2057S); *Streptococcus* (1; X15154923); Syncope (f; JN130:2057S); Syphilis (f; JN130:2057S); Thrombosis (1; X12944249; X15190043); Thyropathy (f; HH2); Toothache (f; JN130:2057S); Tuberculosis (1; JN130:2057S); Tumors (f1; CRC; JN130:2057S); Vaginosis (f; JFM); Worms (f; CRC); Wounds (f; DAD; JFM; ULW); Wrinkles (f; APA; CRC; DAD).

### Dosages:

FNFF = !!! Toasted seeds the source of chocolate, cocoa, and cocoa butter; pulp around the seeds sweet and delectable (FAC; JAD). 1–2 tsp cocoa/cup water a/o milk (APA).

- Colombians use the leaf tea as a diuretic cardiogenic (DAD).
- Dominicans suggest the diuretic theobromine in leaves is good for kidney problems (AHL).
- Haitians use seed decoction as diuretic stimulant (VOD).
- Latinos speculate that massage with cocoa butter may improve cellulitis and wrinkles (HAD).

- Mexicans apply young leaves to wounds to prevent infection (JFM).
- Nigerians use the root for anemia; it has membrane stabilizing activity and could provide some minerals, helping stabilize red blood cells from stress injury (X16039811).
- Panama Kuna Indians use flower infusion for conjunctivitis, especially bot-fly of the eye (IED).
- Peruvians recommend cocoa butter applied topically to hemorrhoids and myalgia (EGG).
- Peruvians suggest chocolate rice pudding with cinnamon as lactagogue (EGG); cacao shells fed to cattle to increase milk flow and butter and fat content (NAD).
- Peruvians suggest fruit husk decoction for convulsions, cough, dysentery, and pertussis (EGG).
- Venezuelans apply seed oil to burns, cracked lips, eruptions, sore breasts, wounds, etc., inserting cocoa butter in the rectum and vagina to relieve irritations (JFM).

#### Downsides:

Not covered (AHP). Not approved (KOM). “No health hazards or side effects are known in conjunction with either the proper administration of designated therapeutic dosages or the consumption of normal amounts of chocolate products” (PH2). But they designate no dosage level and does not define normal usage! (JAD). Commission E reports counterindications for seed and seed shell: hypersensitivity; adverse effects: allergic reactions with skin manifestations and migraine (AEHD; KOM). IBS patients should avoid cocoa-containing products (APA). Cocoa butter clogs pores causing blackheads in animals (APA). Biogenic amines (phenylethylamine, serotonin, tryptamine, tyramine) can trigger migraine attacks. Free amines total 750–1,440 ppm in fermented beans. Even caffeine can trigger headache in naive subjects. As of July 2007, the FDA Poisonous Plant Database listed 61 titles alluding to toxicity of this species.

#### Extracts:

Theophylline is present in traces only in unroasted beans, disappearing in roasting (HHB). Enzymes like hydrolase, lipase, and proteinase are deactivated in roasting. If caffeine from coffee works for hyperkinesis (ADD), a big if, why not caffeine from chocolate, or tea, both of which may have even more health benefits, via their catechin-tannins. Milk chocolate may have 2,000 ppm caffeine, bitter chocolate 4,000 ppm (PH2). Cocoa powder can stimulate insulin production an average 28% (JN133:3149). Dark (but not white) chocolate inhibited collagen-induced platelet aggregation in platelet rich plasma, possibly helping prevent cardiovascular and thromboembolic diseases (X12944249). Cocoa oil provides good protection against *Simulium damnosum* (X12616944).

### PORTIA TREE (*Thespesia populnea* (L.) Sol. ex CorrLa) ++

#### MALVACEAE

**T**

#### Illustrations:

fig 152 (L&W); p 764 (TTS); pl 136 (KAB)

#### Synonyms:

*Hibiscus populneus* L.; *Thespesia macrophylla* Blume; fide (USN).

#### Notes:

Since Arsene (1971) mixed the *Hibiscus* “mahoe” and the *Thespesia* “mahoe” in their collection of common names, I decided to take the easier choice, list none of them for either species, or list all of them for both species. Certainly amateurs, like professional botanists, sometimes confuse the rather similar species.

**Common Names:**

Adengkra (Ga; KAB); Adormba (Fanti; KAB); Álamo (Dor.; L&W); Álamo Blanco (Dor.; L&W); Algodón de Monte (Col.; L&W); Arasi (Kan.; KAB); Arbol Paraguas (Ma.; JFM); Ayedru (Twi; KAB); Baboigubat; (Tag.; KAB); Baru (Malaya; IHB; KAB); Baru-Baru (Malaya; IHB); Baru Laut (Malaya; IHB; KAB); Beach Maho (Br. Guy.; L&W); Benddy (Kon.; KAB); Bendi (Guj.; KAB); Bendy Tree (Eng.; Ma.; JFM; USN); Bhendí (Bom.; KAB); B k (Thai; IHB); Bois de Rose (New Cal.; KAB); Borborsenyu (Ewe; KAB); Bosch Katoen (Sur.; L&W); Buah K ras Laut (Malaya; IHB); BuLacan (Vis.; KAB); Catalpa (Guad.; L&W); Chandabaram (Mal.; KAB); Cheelanthi (Tam.; SKJ); Chrey Sramol (Ic.; KAB); Clamor (Pr.; L&W); Clavel de Mar (Ma.; JFM); Clemón (Col.; L&W); Cork Tree (Bah.; Bel.; Eng.; BNA; L&W; USN); Cremón (Ven.; JFM; L&W); Duartiana (Dor.; AHL); Dumbbla (Ben.; Sunderbunds; KAB); Eijjan (Nzima; KAB); Emahagüillo (Pr.; L&W); False Rosewood (Eng.; WOI); Feuilles d'Haiti (Fr.; AHL); Fèy D'atiti (Creole; Haiti; VOD); Frescura (Nic.; Pr.; L&W); Gajadanda (Hindi; KAB); Gajashundi (Ben.; KAB); Gangaraavi (Ap.; SKJ); Gangaravi (Tel.; KAB); Gangareenu (Tel.; WOI); Gangareni (Tel.; NAD); Gangarevi (Tel.; NAD); Gangu-ranichettu (Tel.; NAD); Gansurigaja (Sin.; KAB); Gardabanda (Sanskrit [1 of 11]; KAB); Grand Mahout (Haiti; AHL); Grós Mahaut (Haiti; AVP; L&W); Gunjausto (Oriya; KAB); Gwo Maro (Creole; Haiti; VOD); Haiti Haiti (Vi.; L&W); Heartwood (Eng.; NAD); Higuillo (Ma.; JFM); Hojo di Cruz (Ma.; JFM); Hoovarase (Kan.; WOI); Indian Tulip Tree (Eng.; WOI); Jaqueca (Pr.; L&W); Jogi (Tulu; KAB); John Bull Tree (Jam.; L&W); Kallal (Tam.; KAB); Kandarolamaro (Kan.; NAD); Karavachu (Sri.; KAB); Katoen (Ma.; JFM); Macoi (Chile; JFM; L&W); Mahagua de Florida (Cuba; L&W); Mahagüillo (Pr.; L&W); Mahaut de Londres (Trin.; L&W); Maho (Br. Guy.; L&W); Mahoe (Eng.; VOD); Mahor Borde de Mer (St. Lucia; L&W); Majagua (Ma.; JFM); Majagua de Florida (Ma.; JFM); Majaguilla (Ma.; JFM); Milo (USN); Mortel Debout (Haiti; AHL); Otaheita (Dwi.; L&W); Otaheite (Ma.; JFM); Otoijfi (Ma.; JFM); Paarsapeepala (Guj.; WOI); Pacific Rosewood (Eng.; USN); Paharipipal (Pun.; KAB); Palo de Jaqueca (Pr.; L&W); Palu Santu (Dwi.; L&W); Pararspipal (Pun.; NAD; WOI); Paraspiplo (Porebunder; KAB); Paraspippal (Dec.; KAB); Parisa (Sanskrit; NAD); Parsachha-Jhada (Mar.; WOI); Parsipu (Hindi; WOI); Parusa Pipalo (Guj.; NAD); Parushamaran (Tam.; NAD); Pau Rosa (Por.; KAB); Poovarasam Kallal (Tam.; WOI); Poovarasu (Ker.; Mal.; SKJ; WOI); Porash (Ben.; NAD); Porcher (Fr.; Réunion; KAB); Porish (Dec.; NAD); Porosopippoli (Oriya; WOI); Portia Tree (Eng.; L&W; USN; VOD); Porush (Hindi; SKJ); P Tal (Thai; IHB); Puntada de Cabeza (Ma.; JFM); Puvarasu (Tam.; NAD); Puvvarashah (Mal.; NAD); Ranbhendi (Mar.; KAB); Santa Maria (Pr.; L&W); Seaside Mahoe (Eng.; L&W; USN; VOD); Spanish Cork (Bah.; Bel.; Eng.; L&W; VOD); Tamsi (Afanta; KAB); Tebokala (Andaman; SKJ); Tespésia (Brazil; USN); Tornasol (Ma.; JFM); Tulip Tree (Eng.; Trin.; L&W; USN); Umbrella Tree (Eng.; KAB); Valo (Hova; KAB); Valomena (Sakalave; KAB); Waru (Malaya; IHB); Waru Laut (Java; IHB). (Nscn; American entries diacritically prepared).

**Activities:**

Alterative (f; KAB; NAD); Analgesic (f; JFM); Anticarcinomic (1; WOI); Antidote (f; WOI); Antifertility (1; X15259611); Antiinflammatory (1; X7843790); Antileukemic (1; X12112292); Antioxidant (1; X12860313); Antiseptic (1; JFM); Antispermagenic (1; X15259611); Antisteroidogenic (1; X10865891); Antitumor (1; WOI); Antiviral (1; WOI); Aphrodisiac (f; KAB); Bactericide (1; WOI); Cardiotoxic (f; DAW); Collyrium (f; VOD); Cytotoxic (1; X12112292); Demulcent (f; NAD); Dermatitigenic (1; X9358115); Diuretic (f; EB28:20; VOD); Emollient (f; DAW); Febrifuge (f; JFM); Gram(+)-icidic (1; WOI); Gram(-)-icidic (1; WOI); Hypertensive (f; VOD); Hypotensive (f; AHL; JFM); Lactagogue (f; JFM); Poison (f; WOI); Purgative (f; AHL; DEP; WOI); Sedative (f; DAW); Spermagenic (f; NAD); Sudorific (f; AHL; VOD); Tonic (f; KAB); Vulnerary (1; X11429243).

**Indications:**

Adenocarcinoma (1; X10381175); Arthrosis (f; DEP; KAB); Bacteria (1; WOI); Bilioussness (f; KAB); Bites (f; KAB); Bruises (f; KAB; VOD); Cancer (f1; JLH; WOI); Cancer, lung (f1; JLH; WOI); Cardiopathy (f; KAB); Cholera (1; WOI); Colds (f; JFM); Colic (f; KAB); Constipation (f; SKJ; VOD); Contusion (f; VOD); Coughs (f; EB28:20); Dermatitis (f; JFM; KAB; L&W; VOD); Dysentery (f; DEP; KAB); Dyspnea (f; DAW); Eczema (f; KAB); Edema (f; JFM); Enterosis (1; WOI); *Escherichia* (1; WOI); Fever (f; JFM); Fistula (f; NAD); Fungus (f; JFM); Gastrosis (f; DAW); Gonorrhoea (f; KAB); Guinea Worm (f; WOI); Headache (f; JFM; KAB); Hemorrhoids (f; IHB; KAB; SKJ); Hepatosis (f; DAW); Herpes (f; KAB); High Blood Pressure (f; AHL; JFM); Hypotension (f; VOD); Infection (f1; JFM; KAB); Inflammation (f; KAB); Itch (f; DEP; VOD); Leukemia (1; X12112292); Malaria (1; WOI); Mange (f; VOD); Migraine (f; KAB); Mycosis (f; JFM); Nephrosis (f; JFM); Ophthalmia (f; AHL; VOD); Orchosis (f; EB25:441); Pain (f; JFM); Pleurisy (f; IHB); Pleurodynia (f; KAB); Psoriasis (f; KAB); Rheumatism (f; JFM; VOD); Ringworm (f; JFM); Scabies (f; KAB; NAD); Sprains (f; JFM; NAD); Swelling (f; DEP; JFM); Throat (f; KAB); Thrush (f; EB28:20); Toothache (f; JFM); Uremia (f; VOD); Urethrosis (f; KAB); VD (f; KAB); Viruses (f1; KAB; WOI); Warts (f; JLH); Worms (f; WOI); Wounds (f1; EB28:20; WOI; X11429243); Yeast (f; EB28:20).

**Dosages:**

FNFF = !! Flowers reportedly eaten (L&W). Young leaves, buds, and flowers can be eaten, raw or cooked, e.g., fried in butter (JFM; WOI).

- Curaçaoans apply oiled leaves to the forehead for headache, to the cheek for toothache, wherever there is pain (JFM).
- Filipinos apply the latex from unripe fruits to dermatoses, itch, and ringworm (JFM).
- Haitians take bark decoction for bruises and contusion (VOD).
- Haitians take bark/leaf decoction to raise blood pressure (VOD); Puerto Ricans take to lower it (JFM).
- Haitians take diuretic leaf tea for hypotension, rheumatism, and uremia, applying it topically to dermatoses, itch, mange, and rash (VOD).
- Haitians use macerated flowers in eyewash for ophthalmia (VOD).
- Madagascans apply sap to herpes, the bark decoction to dermatosis or dysentery (KAB).
- Malaysians use heartwood resin in bilious attacks, colic, and pleurodynia (NAD).
- Mauritians apply fruit juice to warts (JLH), using astringent bark in dysentery and piles (KAB).
- Tahitians apply bruised fruit to migraine, the yellow peduncle sap to bugbites (KAB).
- Venezuelans suggest shoot decoction for dermatosis (JLH).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed three titles alluding to toxicity of this species.

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**LUCKY NUT (*Thevetia peruviana* (Pers.) K. Schum.) X****APOCYNACEAE****Illustrations:**

fig 668, p 835 (LWW); p 456 (NPM)

**Synonyms:**

*Cascabela peruviana* (Pers.) Raf.; *Cascabela thevetia* (L.) Lippold; *Cerbera peruviana* Pers.; *Cerbera thevetia* L.; *Thevetia linearis* Juss. ex Steud.; *T. neriifolia* Juss. ex Steud.; fide (JFM; MPG; USN).



**Notes:**

Though American, the plant has accrued several Sanskrit names, of which I record the first below (WOI). This family, like Apiaceae and like mushrooms, has some edible species but with poisonous look alikes. I've read that black fruits of this species are edible, but I'd be a bit afraid to use them as medicine, much less survival food. I did find books suggesting their use as survival food, so I scored it FNFF = ?

**Common Names:**

Abre a Lait (Creole; Haiti; Ma.; JFM); Abre Poison (Ma.; JFM); Acedio (Col.; AVP); Acitz (Ma.; JFM); Adelfa Amarilla (Sp.; USN); Ahoahai Mirim (Brazil; AVP; RAR); Ahoai Mirim (Ma.; JFM); Ahouai des Antilles (Haiti; AHL); Ahouai Yorre (Fr. Guy.; AVP); Ahouay (Arg.; LWV); Ahoui (Fr.; AVP); Ahoui Guacu (Brazil; RAR); Ahoui Yerre (Ma.; JFM); Aje de Monte (Col.; AVP); Alelia de Matto (Sp.; AVP); Amancal (Col.; AVP); Amancay (Pan.; AVP); Amancayo (Ma.; JFM); Árbol de Panamá (Peru; Sp.; EGG; RAR); Arbre à Lait (Creole; Guad.; Haiti; AVP; VOD); Arbre Poison (Guad.; AVP); Ashvagna (Sanskrit; WOI); Auchim (Ma.; JFM); Awai dès Anti (Creole; Haiti; VOD); Away (Wayāpi; GMJ); Azuceno (Ma.; JFM); Bagage de Collier (Haiti; AVP); Barbasco (Ma.; JFM); Bellaco Caspi (Peru; Sp.; EGG; RAR); Bella Guillo (Peru; AVP); Bellaquillo (Peru; Sp.; EGG; RAR); Be-Still Tree (Eng.; LWV); RAR); Bois a lait (Mart.; AVP); Bois Lait (Creole; Haiti; VOD); Bois Saissement (Haiti; AHL; LWV); Bois Serpent (Ma.; JFM); Bwa Sépan (Creole; Haiti; VOD); Bwa Sézisman (Creole; Haiti; VOD); Caballón (Ma.; JFM); Cabalonga (Cuba; His.; AHL; RyM); Cachimolivo (Col.; AVP; LWV); Camache (Ma.; JFM); Camalonga (Ecu.; Peru; BEJ; EGG); Campanilla (Ma.; JFM); Campanilla Amarilla (Sal.; AVP); Campanillo (Pan.; MPG); Canjura (Ma.; JFM); Carouache Cascabel (Ven.; RAR); Caruache (Ma.; JFM); Cascabel (Ven.; AVP; JFM); Cascavel (AVP; JFM); Castanyeto (Ven.; AVP; JFM); Cavalonza (Sp.; AVP); Cayapa (Ecu.; MPG); Chapeu de Napoleao (Por.; GMJ); Chilca (Guat.; Nic.; AVP); Chilca Mayor (Ma.; JFM); Chilco (Ma.; JFM); Chilindrón (Guat.; Hon.; Sal.; AVP; LWV); Chirca (Cr.; Mex.; Sp.; AVP; LWV; USN); Chirca Venenosa (Cr.; AVP); Chocop (Ma.; JFM); Cobalonga (Cuba; Pr.; AVP); Codo de Fraile (Mex.; AVP); Coica (Ven.; AVP; JFM); Coico (Nic.; AVP); Cojon de Gato (Ma.; JFM); Colon de Gato (Mex.; AVP); Corocao de Jesus (Por.; AVP); Coshshco Chinin Rao (Shipibo/Conibo; EGG); Cravachi (Ma.; JFM); Cruceta Real (Ven.; RAR); Cruzeiro (Por.; AVP); D'eau Livre (Haiti; LWV); Feuilles Saisies (Haiti; AHL); Feuilles Saissement (Haiti; AHL); Fèy Sez (Creole; Haiti; VOD); Fèy Seziman (Creole; Haiti; VOD); Flor Amarillo (Peru; EGG); Flor del Peru (Dor.; AHL); Fraile (Mex.; AVP); French Willow (Ma.; JFM); Fruta de Cascabel (Ma.; JFM); Good Luck Tree (Bar.; Bel.; BNA; LWV); Guira Rupia (Bol.; Chiriguano; DLZ); Hierba Fortuna (Ma.; JFM); Huang Hua Jia Zhu Tao (Pin.); Ischacapa (Peru; SOU); Jacapa (Ma.; JFM); Jorro Jorro (Brazil; Dwi.; Sur.; LWV; RAR); Jurri Jurri (Sur.; AVP); Kadukasi (Kan.; WOI); Kandail (Tharu; NPM); Karawassi (Ma.; JFM); Kaway (Wayana; GMJ); Keniyek (Ma.; JFM); Koklaphul (Ben.; WOI); Konyar Phul (Oriya; WOI); Laura Rosa Amarella (Brazil; AVP); Laurel Jaune (Creole; Guy.; GMJ); Laurel Rosa (Ecu.; MPG); Lechero (Ven.; RAR); Lengua de Gato (Ma.; JFM); Llagas de San Francisco (Arg.; Ma.; JFM; LWV); Loandro-Amarelo (Por.; USN); Louro Rosa (Brazil; RAR); Luck Seed (Wi.; LWV); Lucky Bean Bush (Ma.; JFM); Lucky Nut (Eng.; CR2; RAR; VOD); Lucky Seed (Ma.; JFM); Maichil (Peru; Sp.; EGG; RAR); Mamma de Cachorro (Brazil; AVP); Manja Areli (Mal.; WOI); Manzanillo (Ma.; Ven.; JFM; LWV); Mato (Sp.; AVP); Milk Bush (Ma.; JFM); Milk Tree (Eng.; USA); Nandhirobe (Creole; Haiti; VOD); Naranjo Amarillo (Ma.; JFM); Narciso Amarillo (Mex.; AVP); Noho Malie (Haw.; LWV); Noix de Serpent (Guad.; Haiti; Mart.; AVP; VOD); Noz de Cobra (Por.; AVP); Oléandre Jaune (Fr.; USN); Olijfi di Bonaire (Dwi.; LWV); Olivo (Ma.; JFM); Pachaganneru (Tel.; WOI); Pachaiyalari (Tam.; WOI); Paichachi (Guarayo; DLZ); Pájaro Bobo (Peru; EGG); Patakura (Ma.; JFM); Pepo de Cruz (Col.; AVP); Peruvian Yellow Oleander (Eng.; VOD); Pila Kaner (Ma.; JFM);

Pila Kanera (Guj.; WOI); Pile Kaner (Hindi; WOI); Pilvalakanhera (Mar.; WOI); Poison à Fleches (Creole; Haiti; VOD); Poison des Fleches (Fr. Guy.; Haiti; AVP; VOD); Retama (Dor.; Ven.; AHL; LWV); Rosa de Lima (Pan.; MPG); Rosa de Tabago (Pan.; MPG); Sano Karbir (Nepal; NPM); Serpent (Haiti; AHL; AVP; LWV); Sewejoe (Ma.; JFM); Siática (Peru; Sp.; EGG; RAR); Suche (Peru; Sp.; EGG; RAR); Suchede de Cerro (Ecu.; MPG); Tape (Ecu.; MPG); Tawai (Sur.; AVP); Tembajo Quillanchi (Ecu.; MPG); Thevetie (Ger.; USN); Trumpet Flower (Fla.; AVP); Yahuisin Shequi (Peru; Shipibo/Conibo; EGG); Yambigo (Ma.; JFM); Yellow Oleander (Eng.; CR2; RAR; VOD); Yoyitli (Ma.; JFM); Yoyote (Mex.; AVP); Yucucaca (Mex.; AVP); Z'olive (Haiti; AVP; VOD); Zuche (Ma.; JFM).

### Activities:

Abortifacient (f; CRC; EGG; WBB); Analgesic (f1; AHL; EGG; TRA; VOD); Anesthetic (f; IED); Antiacetylcholinesterase (1; X15910912); Antiaggregant (1; TRA); Antidote (f; CRC); Antiedemic (f; JFM); Anti-HIV (1; X12036017); Anti-Integrase (1; X12036017); Antiseptic (f; MPG); Antispasmodic (1; TRA); Antiviral (1; X12036017); Bactericide (1; CRC; WBB); Canicide (f1; EGG; RAR); Cardioactive (1; X3086679); Cardiotoxic (1; CRC; EGG; TRA; VOD); Curare (f; CRC); Decongestant (f; DAV); Dentifuge (f; MPG); Digitalic (f; EGG); Emetic (f; CRC; EGG); Febrifuge (f; CRC; EGG; NPM; VOD); Fungicide (1; X12745247); Hepatoprotective (1; TRA); Insecticide (1; CRC; EGG); Larvicide (1; MPG); Molluscicide (1; X16253436); Mosquitocide (1; MPG); Narcotic (f; IED; KAB); Parasiticide (1; CRC); Pediculicide (f; EGG); Phototoxic (1; X12745247); Piscicide (f1; CRC; EGG; RAR; X12974464); Poison (f1; CRC; RAR); Positive Inotropic (1; MPG); Purgative (f; CRC; EGG); RT-Inhibitor (1; X12036017); Sedative (f; JFM); Uterotonic (1; TRA; WBB).

### Indications:

Abscesses (f; EGG); Alzheimer's (1; FNF; X15910912); Anthrax (1; MPG); Arthrosis (f; AHL; CRC; EGG; KAB; VOD); *Bacillus* (1; MPG); Bacteria (1; CRC; MPG; WBB); Bladder Stones (f; JFM); Bronchosis (f; KAB); Bruises (f; EGG); Cancer (f1; CRC; DLZ); Cardiopathy (f1; CRC; EGG; TRA; VOD); Cholera (1; MPG); Congestion (f; DAV); Cystosis (f; JFM); Deafness (f; DLZ); Dermatitis (f; CRC; WBB); Dropsy (f; AHL; CRC; WOI); Dysmenorrhea (1; TRA); Edema (f; JFM); Fever (f; BEJ; CRC; EGG; NPM; VOD); Fungus (1; X12745247); Heart (f; CRC); Hemorrhoids (f; CRC; EGG; KAB; MPG); Hepatitis (1; TRA); HIV (1; X12036017); Infection (f1; CRC; MPG; WBB; X12745247); Insomnia (f; JFM); Itch (f; KAB); Leukoderma (f; KAB); Malaria (f; CRC; JFM; NPM; WBB); Mange (f; CRC); Mycosis (1; X12745247); Nervousness (f; TRA; VOD); Ophthalmia (f; KAB); Pain (f1; AHL; EGG; IED; TRA; VOD); Parasites (1; CRC); Pediculosis (f; EGG); Rheumatism (f; AHL; CRC; EGG; KAB); Shock (f; VOD); Snake Bite (f; JFM); Sores (f; CRC); Spasms (1; TRA); *Staphylococcus* (1; MPG); Swelling (f; EGG; JFM); Tachycardia (f; CRC); Tension (f; VOD); Toothache (f; CRC; EGG); Tumors (f; CRC; WOI); Ulcers (f; CRC); Urethritis (f; KAB); *Vibrio* (1; MPG); Viruses (1; X12036017); Worms (f; KAB); Wounds (f; KAB).

### Dosages:

FNFF = X? 2 grains said to be as effective as quinine (f; WBB).

- Asian Indians plaster the roots onto tumors (JLH).
- Ayurvedics use the plant for bronchosis, conjunctivitis, dermatitis, fever, hemorrhoids, itch, leukoderma, urethritis, worms, and wounds (KAB).
- Brazilians take bark decoction for fever, too much causing purging and vomiting (JFM).
- Cubans and Venezuelans believe just wearing the lucky nut will prevent hemorrhoids, especially if they simultaneously insert cocoa butter rectally (JFM).
- Cubans boil 5 flowers in ½ liter milk 10 min, taking sweetened for insomnia (JFM).

- Guianans take seed in rum as alexiteric and purgative, for dropsy and rheumatism (KAB).
- Haitians apply a seed kernel paste as an analgesic in arthritis (VOD).
- Haitians bathe in a bark/fruit/sap decoction for fever (VOD).
- Haitians take the floral/foliar decoction for tension (VOD).
- Haitians use the leaf decoction as cardi tonic and to relieve emotional shock (VOD).
- Mexicans apply the latex on cotton to chronic sores, mange, and toothache (JFM).
- Nepalese suggest the bark as febrifuge and antiperiodic (NPM).
- Peruvians apply stem latex on cotton, then tamped into caries for toothache (EGG; SOU).
- Peruvians dangerously use the leaf/stem decoction as emetic, febrifuge, and purgative (EGG).
- Venezuelans take 1 tbs wine leaf tincture 3×/day as a diuretic for edema, or 28 g leaf, 28 g powdered absinth, 15 g in white wine (JFM).
- Yucatanese take decoctions for fevers, notably malaria, and mixing powdered seed with tallow as a dangerous suppository for hemorrhoids (JFM).

#### Downsides:

Not covered (AHP; KOM; PHR). Many fatalities reported from self-medication (CRC). 1–2 seeds may kill a child (CRC). One South African child died six hours after eating a kernel (WBB). There are dozens of abstracts in PubMed regarding toxicity, including several abstracts suggesting charcoal as antidote. As of July 2007, the FDA Poisonous Plant Database listed 119 titles alluding to toxicity of this species.

### SPANISH MOSS (*Tillandsia usneoides* (L.) L.) ++

#### BROMELIACEAE

#### Synonyms:

*Dendropogon usneoides* Raf.; *Renealmia usneoides* L.

#### Notes:

Sometimes one spots strange typos. I understood when I saw the word “salvajina” as a Bolivian/Peruvian common name and then figured that Arsene (1971) must have mis-transposed some copy to come up with “Incahuasso y Sal Vagina” for one Peruvian name. I suspect it was two Peruvians names “Incahuasso” and “Salvajina.” One mystery partially solved.

#### Common Names:

Ashome (Mikasuki; AUS); Asónwa (Creek; AUS); Ayan' Nanhi' (Biloxi; AUS); Barba de Capuchico (Peru; EGG); Barba de Capuchino (Bol.; DLZ); Barba de Pai Veuntura (Brazil; AVP); Barba de Palo (Ven.; AUS); Barba de Pau (Brazil; MPB); Barba de Velho (Brazil; MPB); Barba de Viejo (Col.; Cr.; Peru; AUS; EGG; JTR); Barba Española (Cuba; AUS; JTR); Barbas de Cuba; (Pr.; AVP; JTR); Barbe à L'arbre (Guad.; AVP); Barbe Bois (Haiti; AHL); Barbe Espagnole (Haiti; AHL); Barbe Grise (Fr.; USN); Barbe Pagnole (Haiti; AHL); Barbe Pangnole (Haiti; AVP); Barbón (Chile; AVP); Cabellos de Angel (Mex.; AUS); Cacahuinta (Peru; EGG); Ccacca Sucja (Peru; EGG); Cotataura (Peru; EGG); Crape Moss (Eng.; AUS); Crina Vegetal (Brazil; AVP); Fille de L'air (Fr.; USN); Florida Moss (Eng.; Ocn.; AH2; AUS); Guajaca (Cuba; Dor.; Taino; AHL; AUS; JTR); Guajacilla (Cuba; JTR); Hassolwá (Koasati; AUS); Heno (Maya; Mex.; MAX); Hichiiikoni (Guarijio; AUS); Hubrasco (Peru; AVP); Ichokhiska Hatka (Alabama; AUS); Incahuasso y Sal Vagina (Peru; AVP); Inti Suncja (Peru; EGG); Iti Shumo (Choctaw; AUS); Long Moss

(Eng.; AUS); Louisianamoos (Ger.; USN); Melena (Brazil; Col.; AVP; JTR); Millmachina (Bol.; Peru; Que.; DLZ; EGG); Mossy Tillandsia (Jam.; AVP); Mousse (Fr.; AUS); Musco (Peru; AUS); Old Man's Beard (Jam.; AVP); Pastle (Mex.; Nahuatl; AUS); Paxtli (Maya; Mex.; MAX); Pipsisqui (Mayo; AUS); Puca Huele (Peru; EGG); Qala Sunkha (Bol.; Que.; DLZ); Qoqa T'arwa (Aym.; DLZ); Saccropa (Peru; EGG); Sach'a Sunkha (Que.; DLZ); Salvaje (Peru; AUS; EGG); Salvajina (Bol.; Peru; DLZ; EGG); Samambaia do Norte (Brazil; JTR); Somo (Alabama; AUS); Spanish Moss (Eng.; Scn.; AH2; USN); Sucja (Peru; EGG); Tacali (Maya; Mex.; MAX); Teinasho'hi (Ofo; AUS); Timu (Tupi; EGG); Ucushpa Hueclan (Peru; EGG); Vegetabilisches Rosshaar (Ger.; AVP); Wool Crape (Eng.; AUS); Yedra (Dor.; AHL).

Caraguatarai (Bol.; Chiriguano; DLZ); Clavel del Aire, and Paepompi (Bol.; Chacoba; DLZ) are Bolivian names for *Tillandsia tucumanensis*.

### Activities:

Analgesic (f1; DAW; X2615423); Antiherpetic (1; X15890472); Antiinflammatory (f; DAW); Antiviral (1; X15890472); Astringent (f; MAX); Emmenagogue (f; DAW); Febrifuge (f; AUS; DAW); Hemostat (f; DAW); Hypoglycemic (1; X7595594); Insectifuge (f; DAW); Lactagogue (f; DAW); Neurotonic (f; DAW; EGG); Pulifuge (f; DAW); Sedative (f; DAW); Sudorific (f; DAW); Tonic (f; DAW); Tranquilizer (f; DLZ); Vulnerary (f; DAW).

### Indications:

Abscesses (f; JTR); Arthrosis (f; DAW); Backache (f; DLZ); Bleeding (f; DAW); Cardiopathy (f; DAW; DLZ); Chills (f; AUS); Coughs (f; DAW); Diabetes (1; X7595594); Dyslactea (f; DAW); Dyspepsia (f; AUS); Epilepsy (f; MAX); Fever (f; AUS; DAW); Hemorrhoids (f; JTR; MPB); Hepatosis (f; DAW; DLZ; MPB); Herpes (1; X15890472); Hernia (f; MPB); Inflammation (f; DAW); Insomnia (f; DAW; DLZ); Nephrosis (f; EGG); Obesity (f; DAW); Pain (f1; DAW; X2615423); Pulmonosis (f; DAW; DLZ); Rheumatism (f; EGG; JTR; MPB); Tumors (f; JLH; JTR); Viruses (1; X15890472); Wounds (f; DAW).

### Dosages:

FNFF = ?

- Bolivians take tea for heart, liver, and lung, using decoction on back and kidney problems (DLZ).
- Brazilians infuse 20 g "moss" in 200 g boiling water, taking 3–4 spoonfuls for rheumatism (JTR).
- Cubans and Peruvians mash leaves with butter and apply to hemorrhoids (EGG; JTR).
- Cubans apply mashed plant as emollient on abscesses and tumors (JTR).
- Houma use in teas for chills and fevers (AUS).
- Mexicans use the plant for indigestion (AUS; MAX).
- Peruvians massage rheumatic areas with the plant decoction (EGG).
- Peruvians take the tea, often with lemon, as lactagogue and sedative, and for cardiopathy, coughs, hepatosis, insomnia, nephrosis, and pain (EGG).

### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

### Extracts:

Aqueous ethanolic extract shows analgesic activity in mice writhing and tail flick methods (X2615423). 3-hydroxy-3-methylglutaric acid, from *T. usneoides*, showed significant hypoglycemic responses in fasting normal mice (X7595594). Dichloromethane, ethyl acetate, and n-butanol extracts showed inhibition of HSV-1, strain 29R/acyclovir resistant (X15890472).

**BOAT LILY (*Tradescantia spathacea* Sw.) ++****COMMELINACEAE****Illustrations:**

p 333 (TRA)

**Synonyms:***Ephemerum bicolor*; *Rhoeo discolor* (L'Hér.) Hance; *R. spathacea* (Sw.) Stearn; *Tradescantia discolor* L'Hér; fide (USN).**Common Names:**

Almeja (Cuba; MPG); Amor y Celos (Cuba; MPG); Barco (Ma.; JFM); Barquito (Cuba; MPG); Boat Lily (Eng.; JFM; USN); Bouis di Mas (Haiti; TRA); Boule de Mars (Ma.; JFM); Bull de Ma (Ma.; JFM); Buquecitos (Ma.; JFM); Canoa (Ma.; JFM); Chactsam (Ma.; JFM); Chactsan (Ma.; JFM); Cordobá (Brazil; MPB); Cordobán (Cuba; MPG); Crapaud (Ma.; JFM); Croto Palmita (Ma.; JFM); Flor de Piña (Peru; EGG); Flotilla de Gaitan (Ma.; JFM); Gros Curage (Ma.; JFM); Gros Raguét (Ma.; JFM); Hoja de Higado (Ma.; JFM); Ladies in a Boat (Eng.; JFM); Magueyito (Dor.; MPG); Moses in a Boat (Eng.; EGG); Moses in the Bullrushes (Eng.; JFM); Moses in the Cradle (Eng.; USN); Nadando en Bote (Ma.; JFM); Oesterplant (Ma.; JFM); Oyster Plant (Eng.; JFM; USN); Pluma de Venus (Ma.; JFM); Pluma Venus (Ma.; JFM); Sangria (Ma.; JFM); Sangrin (Ma.; JFM); Sanguinaria (Ma.; JFM); Señoritas Embarcadas (Ma.; JFM); Seroncito (Cuba; MPG); Trappoeraba Açú (Brazil; MPB); Ts'am (Ma.; JFM); Uru de Pobre (Brazil; MPB); Yaxtsam (Ma.; JFM); Yaxtsan (Ma.; JFM); Yaxtsana (Ma.; JFM); Yaxtsanah (Ma.; JFM); Zapatillo (Cuba; MPG); Zapaton del Obispo (Cuba; JFM; MPG). (Nscn).

**Activities:**

Abortifacient (f; MPG); Analgesic (f1; JFM; MPG); Antioxidant (1; X12537965); Antiradicular (1; X12537965); Astringent (f; MPG); Cicatrizant (f; MPG); Dermatitigenic (f; JFM); Diuretic (f1; MPB); Emollient (f; MPB); Expectorant (f; HOC); Hemostat (f; MPG); Pectoral (f; MPB; MPG); Toxic (f; MPG); Uterotonic (1; MPG; X7109665).

**Indications:**

Amenorrhea (f; MPG); Arthrosis (f; JFM); Asthma (f; MPG); Backache (f; JFM); Bleeding (f; EGG; MPG); Catarrh (f; JFM; MPG); Coughs (f; JFM; MPG); Dysmenorrhea (f; MPG); Flu (f; MPG); Fungus (f1; X12537965); Gingivosis (f; EGG); Gonorrhea (f; JFM); Headache (f; TRA); Hemoptysis (f; EGG; MPG); Hoarseness (f; MPG); Infection (f1; X12537965); Metrorrhagia (f; EGG; HOC); Mycosis (f1; X12537965); Pain (f1; JFM; MPG); Pulmonosis (f; JFM); Rheumatism (f; JFM); Stomatosis (f; JFM); Tuberculosis (f; MPG); Wounds (f; JFM; MPG).

**Dosages:**

FNFF = !?

- Caribs suggest applying heated leaves to headache (TRA).
- Cubans use the astringent juice to stop bleeding gums or mouth (JFM).
- Peruvians suggest the decoction for bleeding gums, hemoptysis, and metrorrhagia (EGG).

**Downsides:**

Tramil recommends discontinuing use in case of skin irritations; sap oxytotic (TRA). As of July 2007, the FDA Poisonous Plant Database listed 11 titles alluding to toxicity of this species.

**COAT-BUTTONS (*Tridax procumbens* L.) +****ASTERACEAE****Illustrations:**

p 466 (NPM)

**Synonyms:***Balbisia divaricata* Cass.; *B. elongata* Cass.**Common Names:**

Australian Daisy Weed (Eng.; NPM); Bakenbox (Ma.; JFM); Botoncillo (Col.; IED); Bulake Jhar (Nepal; NPM); Bul Shur Jhar (Nepal; NPM); Cadillo Chisaca (Ma.; JFM); Chopacchi (Tamang; NPM); Chopoma (Tamang; NPM); Churmure (Majhi; NPM); Coat-Buttons (Eng.; USN); Cura Gusano (Ma.; JFM); Dhankan Sar (Chepang; NPM); Dhuseri (Thanu; NPM); Erva-de-Touro (Brazil; USN); Hanuman (Tamang; NPM); Hierba de San Juan (Ma.; JFM); Hierba de Toro (Sal.; MPG); Hyan Mran (Tamang; NPM); Kamale Jhar (Nepal; NPM); Khurmure (Chepang; NPM); Kokor (Tamang; NPM); Kurkure Jhar (Nepal; NPM); Maraute Jhar (Tharus; NPM); Marhathi (Chepang; NPM); Mexican Daisy (Ma.; JFM); Pairi Jhar (Chepang; NPM); Pamsali Ban (Chepang; NPM); Phuli No (Nepal; NPM); Pyanle Phul (Nepal; NPM); Raabarep (Tamang; NPM); Romerillo (Ma.; JFM); Romerillo de Loma (Cuba; Ma.; JFM; JTR); Ryop Jhar (Chepang; NPM); San Juan del Monte (Ma.; JFM); Thikuri (Danuwar; NPM); Thunke Jhar (Nepal; NPM); *Tridax* Daisy (Eng.; USN).

**Activities:**

Antidiabetic (1; MPG); Antioxidant (f; X15786725); Antiseptic (f; DAW); Cicatrizant (1; MPG); Diuretic (1; MPG); Febrifuge (f; JFM); Fungicide (f1; MPG); Hemostat (f; DAW); Hepatoprotective (1; MPG; X15923095); Immunomodulator (1; X15099857); Insecticide (f; DAW); Juvabional (1; X1398811); Parasiticide (f; DAW); Propecic (1; MPG); Refrigerant (f; DAW; JFM); Vulnerary (1; MPG; X1685591).

**Indications:**

Alopecia (f; DAW); *Bacillus* (1; X11185735); Bacteria (1; X11185735); Bleeding (f; DAW; NPM); Boils (f; NPM); Bronchitis (f; DAW); Bruises (f; DAW); Cataracts (f; NPM); Catarrh (f; DAW; JTR); Colds (f; NPM); Coughs (f; NPM); Cystosis (f; MPG); Diabetes (1; MPG); Diarrhea (f; DAW); Dysentery (f; DAW); Dysuria (f; MPG); *Escherichia* (1; X11185735); Fever (f; DAW; JFM; NPM); Fungus (f1; MPG); Infection (f1; DAW; MPG; X11185735); *Klebsiella* (1; X11185735); *Mycobacterium* (1; X11185735); Parasites (f; DAW); *Salmonella* (1; X11185735); Septicemia (f; NPM); Toothache (f; NPM); Trichophyton (1; MPG); UTIs (f; MPG); Wounds (f1; DAW; MPG; X1685591).

**Dosages:**

FNFF = ? Nepalese use the plant in making “marcha,” a fermenting cake for liquor production (NPM).

- Cubans drink decoction for catarrh (JFM).
- Guatemalans poultice leaves onto flesh maggots, or, often fried in lard, on inflammation (JFM).
- Nepalese take 2 tsp plant juice 2×/day for fever, dropping juice into cataracts, pasting the plant onto boils, and giving it with feed to animals with hemorrhagic septicemia (NPM).
- Yucatanese give decoction as refrigerant in fevers (JFM)

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**NASTURTIUM (*Tropaeolum majus* L.) +****TROPAEOLACEAE****Illustrations:**

p 456 (MAX)

**Notes:**

This is a good case for comparing my *Handbook of Medicinal Herbs* (Duke et al., 2002) with the Latin American edition. The list of activities and indications has doubled. There's a huge accumulation of common names, new to this edition. And one can see some differences in Latino or European usages. Even Julia Morton (1977) suggests this disparity when she says "Europeans have long valued the plant as a urinary disinfectant." So far, I find its use in candida, dysmenorrhea, tuberculosis, and UTIs to be European, but that's one group of European usages I would certainly try if needed. It has phytochemicals proven for all of those. Amazing to find an Icelandic name for this tropical ornamental.

**Common Names:**

Abou Khandgar (Arab.; AVP); Abû Khangar (Arab.; POR); Agrião-do-México (Por.; POR); Agrião-Grande-Peru (Por.; POR); Agrião-Maior-da-India (Por.; POR); Alpinku (Aym.; POR); Asturzio (It.; EFS); Baerkarse (Den.; POR); Berro (Sp.; EFS); Berro de las Indias (Ma.; JFM); Berro de Mexico (Sp.; AVP; JFM); Bilrai (Ben.; POR); Blomkarse (Nor.; POR); Blomsterkarse (Den.; POR); Cachaco de Muladar (Ma.; JFM); Cachipillo (Sp.; EFS); Cappucina Maggiore (It.; POR); Capuchina (Bol.; Col.; Cuba; Sp.; DLZ; EFS; JTR); Capuchinha-de-Flores-Grandes (Brazil; POR); Capuchinha-Grande (Brazil; JTR; POR); Capucine (Haiti; AVP); Capucine Grande (Fr.; EFS); Capucine Grimpante (Fr.; POR); Capucino (It.; AVP); Chagas (Por.; AVP); Chagas-de-Cristo (Por.; POR); Chagas-de-São-Francisco (Por.; POR); Chaga Seca (Por.; POR); Chagas Major (Por.; AVP); Chien Lin Hua (China; EFS); Cinco Chagas (Por.; AVP); Climbing Nasturtium (Eng.; POR); Crescione Indiano (It.; POR); Cresson des Jésuites (Fr.; AVP); Cresson d'Inde (Fr.; EFS); Cresson du Mexique (Fr.; AVP; EFS); Cresson du Pérou (Fr.; AVP); Espuela de Galán (Sp.; AVP; EFS); Flor-de-Chagas (Por.; POR); Flor de la Sangre (Sp.; POR); Frenk Teresi (Tur.; POR); Garden Nasturtium (Eng.; BOW); Grande Capucine (Fr.; JFM); Große Kapuzinerkresse (Ger.; POR); Han He Hua (China; POR); Han Jin Lian (China; POR); Han Lian Hua (Pin.; DAA); He Ye Lian (China; POR); Hind Teresi (Tur.; POR); Hint Teresi (Tur.; EFS); Indian Cress (Eng.; EFS); Indianischen Kresse (Por.; AVP); Indianisk Kresse (Swe.; AVP); Indiankrasse (Swe.; POR); Indiansk Karrse (Den.; AVP); Isañu Cimarrón (Peru; ROE); Jacinto (Pr.; AHL; JTR); Jin Si Lian (China; POR); Kakutupala (Sin.; POR); Kapucinerkarse (Den.; POR); Kapuciner Kresse (Por.; AVP); Kapuziner Kresse (Ger. EFS); Kapuzinerkresse (Ger.; POR); Khawira (Peru; ROE); Kinkenka (Japan; POR); Köynnöskrassi (Fin.; POR); Landloeber (Den.; POR); Latin Çiç (Tur.; POR); Lichorerisnice Vetsi (Czech.; POR); Llagas de Cristo (Sp.; AVP; EFS); Mallan (Peru; ROE); Marañuela (Cuba; EFS; JTR); Marañuela (Sp.; POR); Mastruço-do-Perú (Por.; POR); Mastuerzo (Bol.; Mex.; Peru; AVP; DLZ; EGG); Mastuerzo de Indias (Sp.; POR); Nasturcja Wieksza (Pol.; POR); Nastúrio (Por.; POR); Nasturtie (Den.; POR); Nasturtium (Eng.; EFS); Nasturtsiya (Rus.; POR); Nasturtsiya Bol'shaya (Rus.; POR); Nasturtsiya Kul'turnaya (Rus.; POR); Nasturzio del Perj (It.; POR); Nasturzio d'India (It.; EFS; POR); Nasturzio Indiano (It.; POR); Nasutachiumu (Japan; POR); Oost-Indische Kers (Dutch; EFS; POR); Pajarilla (Bol.; DLZ; POR); Pajarito (Bol.; DLZ); Pensamiento (Dor.; AHL); Sanguine du Pérou (Fr.; AVP); Sarkantyúka (Hun.; POR); Skjaldflétta (Iceland; POR); Spanische Kresse (Ger.; POR); Spansche Kers (Dutch; AVP); Suur Mungalill (Estonia; POR); Taco de Reina (Sp.; EFS); Tajsawi (Aym.; POR); Tall Nasturtium (Eng.; AVP); Tartour el Bacha (Arab.; AVP); Tartûr el Bâshâ (Arab.; POR); Taxawi (Aym.; Bol.; DLZ); Tescao (Peru; ROE); Tiare (Ma.; JFM); Ticsau (Peru; EGG; RAR; ROE; SOU); Tijsaw (Bol.; Que.; DLZ); Toropaeorum Mayusu (Japan; POR).

**Activities:**

Allergenic (1; HH2; JFM); Analgesic (f; DLZ; EGG); Antiallopecic (f; BOW); Antiscorbutic (f1; EFS; MAD; SOU); Antiseptic (f1; BOW; DLZ; JFM; PH2); Bactericide (1; PH2); Cicatrizant (f; EGG); Depurative (f; DAA; EFS; SOU); Digestive (f; JTR); Diuretic (f; AHL; EFS); Emmenagogue (f; AHL; EFS); Expectorant (f; EFS; ROE); Febrifuge (1; WOI); Fungicide (1; BOW; PH2); Gastrogogue (f; JTR); Hemostat (f; ROE); Insecticide (f; DLZ); Laxative (f; MAD); Pectoral (f; ROE); Propecic (f; EGG); Pulicide (f; EGG); Rodenticide (1; WOI); Rube-facient (12; JTR; PH2); Sedative (f; EGG); Stimulant (f; DAA); Stomachic (f; ROE); Vesicant (f; JTR); Vulnerary (f; PH2; SOU).

**Indications:**

Alopecia (f; BOW; EGG; MAD; PH2); Anemia (f; SOU); Angina (f; JTR); Aphtha (f; DLZ; RAR); Bacteria (1; PH2; WOI); Bleeding (f; ROE); Bronchosis (f12; AHL; BRU; JFM; MAD; PH2); Bruises (f; DLZ); Burns (f; BRU); Cancer (f; DAA; MAX); Cancer, lung (f; DAA; MAX); *Candida* (1; HH2); Catarrh (f; MAD; PH2); Congestion (f; EFS; ROE); Conjunctivitis (f; WOI); Constipation (f; MAD); Coughs (f12; JFM; PH2); Cystosis (f; DAA; ROE; WOI); Dandruff (f; BRU; EGG); Dermatitis (f; BOW; DLZ; EGG; WOI); Diaper Rashes (f; BRU); Dysmenorrhea (2; HH2; PH2); Dyspepsia (f; JTR); Emphysema (f; MAD); Erysipelas (f; DLZ); *Escherichia* (f1; HH2); Fever (1; WOI); Flu (f; WOI); Fungus (f1; BOW; EGG; PH2; WOI); Gas (f; DAA; MAD); Gastrosis (f; JTR); Gingivitis (f; ROE); Gout (f; ROE); Headache (f; EGG; SOU); Induration (f; JLH); Infection (f1; BOW; DLZ; EGG; JFM; PH2; WOI); Infertility (f; EGG); Inflammation (f; EGG; JTR; WOI); Insomnia (f; EGG); Itch (f; DAA); Mucositis (f; JTR); Myalgia (f; DLZ); Mycosis (f1; EGG; WOI); Nephrosis (f; WOI); Ophthalmia (f; WOI); Pain (f; DLZ; EGG); Pulmonosis (f; DAA; MAX); Respirosis (f; BOW; EGG; PH2); Rheumatism (f; DLZ); Ringworm (f; DAA; JFM); *Salmonella* (1; HH2); Scurvy (f; DAA); *Shigella* (1; HH2); Sores (f; EGG; SOU; WOI); *Staphylococcus* (f; HH2); Stomatosis (f; JTR); *Streptococcus* (f; HH2); Sties (f; SOU); Sunburn (f; BRU); Tonsillitis (f; JTR); Tuberculosis (1; HH2; PH2); Urogenitosis (f; DAA); UTIs (2; PH2; WOI); Warts (f; JLH); Wounds (f; EGG; HH2; PH2; SOU); Yeast (1; HH2).

**Dosages:**

FNFF = !! Flowers, leaves, and seeds often consumed; pickled unripe seeds the best alternative to capers (BOW; JAD; JTR). 30 g juice (MAD; PH2); 30 g leaf/l water (PH2); 14.4 mg benzylisothiocyanate 3×/day (PH2).

- Argentinians give ½ dry pulverized fruit as purge (JFM).
- Bolivians bathe in leaf decoction for myalgia and rheumatism (DLZ).
- Cubans use like mustard oil, as a vesicant (JFM).
- Europeans have long valued as a urinary antiseptic (JFM).
- Guatemalans use for bronchoses and coughs (JFM).
- Mexicans use for ringworm, claiming it good for cancer of the left lung (JFM; MAX).
- Peruvians feed their chicken the plant to prevent poultry disease (flu?) (EGG).
- Peruvians use the tea or decoction in washes for alopecia, aphtha, cystosis, gingivitis, gout, headache, hemorrhoids, sore throat, and stomatosis (EGG; ROE).

**Downsides:**

Not covered (AHP). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). Overdoses can irritate mucous membranes and skin. As of July 2007, the FDA Poisonous Plant Database listed 16 titles alluding to toxicity of this species.



**Extracts:**

As one of the best sources of erucic acid, this could be considered as a starter material for Lorenzo's Oil, of dubious medicinal efficacy, and some proven downsides. AntiALD (X10801052), antiplatelet (X8733890), antitumor, elastase inhibitor (40nM) (X12357383), lubricant (JBH), thrombocytopenigenic (X8305837).

Benzyl-isothiocyanate: albuminurigenic, allergenic, antiasthmatic, antibiotic, antimutagenic, antineoplastic, antinitrosamine, antitumor, antiviral, bactericide, flatulent, fungicide, herbicide (IC100 = 0.4 mM), insecticide, irritant, laxative 90 mg cow, and virustatic; LD50 = 140 mg/kg unk, LD100 = 100 mg/kg ipr rat. (FNF).

According to Blumenthal et al. (1998), nasturtium consists of the above-ground parts, seeds or leaf of this Andean ornamental. The Commission E monograph on nasturtium was published August 29, 1992. It lists 11 different non-quantified formulae containing nasturtium. Formula number #1 contains alpine lady's mantle, alpine plantain, couch grass, dead nettle, horsetail, lady's mantle, meadowsweet, nasturtium, peppermint, white clover, and white dead nettle. The combo is recommended for strengthening female organs and debility. Formula #2, containing agrimony, alpine lady's mantle, alpine plantain, avens, bearswort, calendula, couch grass, nasturtium, peppermint, and silverweed, is used for infections and catarrh. Formula #3, containing cleavers, dead nettle, knotweed, mate, meadowsweet, nasturtium, oatstraw, peppermint, silverweed, and white dead nettle, is used for bladder conditions and sensitive urinary tract. Formula #4, containing arnica, avens, chamomile, mullein, nasturtium, salvia, thyme, valerian, and yarrow, is used in mouthwashes for paradentosis, canker, dental fistula, ulceration of the gums, toothache, and trigeminal pain. Formula #5, containing bryony, dandelion, kava-kava, nasturtium, and rhododendron, is used for attrition and degenerative manifestations of the joints, rheumatic arthritis and muscular inflammations, lumbago, muscular myogelosis, and abnormal conditions of muscular tonicity. Formula #6, containing arbor vitae, echinacea, monk's hood, nasturtium, night-blooming cereus, propolis, witch hazel, and yeast, is used for bacterial and thrush infections of the respiratory tract, infections of the lower urinary tract, cystitis, pyelitis, prostatitis, and irritable bladder. Formula #7, containing echinacea, garden cress, nasturtium, plantain, and thyme, is also suggested for bacterial and thrush infections of the respiratory tract, infections of the lower urinary tract, cystitis, pyelitis, prostatitis, irritable bladder, and urethral catarrh. Formula #8, containing cabbage, camphor, citronella oil, dandelion, menthol, nasturtium, rosemary, St. John's wort, and watercress, is used for neuralgia and rheumatism. Formula #9, containing bittersweet, bryonia, dandelion, kava-kava, marsh tea, mountain laurel, nasturtium, and rhododendron, is used for chronic degenerative arthritis. Formula #10, containing horseradish, myrrh, nasturtium, and one homeopathic component, is used for influenza-like infections, inflammatory diseases of the tonsils, nose, paranasal sinus, tracheobronchitis, urinary infections. Formula #11, containing birch, cocoa testae, goldenrod, horsetail, lovage, madder, nasturtium, restharrow, saw palmetto, and scotch broom, and one chemical, gasolene, is used for immune boosting to protect against such things as flu (KOM).

## TUBEROUS NASTURTIUM (*Tropaeolum tuberosum* Ruiz & Pav.) ++

### TROPAEOLACEAE

**Illustrations:**

p 401 (DLZ)

**Synonyms:**

*Chymocarpus tuberosus* (Ruiz & Pav.) Heynh.; *Tropaeolum mucronatum* Meyen; *Tropaeum tuberosum* (Ruiz & Pav.) Kuntze.

**Notes:**

Said to have been used by Peruvian rulers like salt peter, as an antiaphrodisiac for the troops (SOU).

**Common Names:**

Añu (Bol.; Eng.; Peru; Que.; DLZ; POR; ROE; USN); Apiña-Mama (Que.; POR; RAR); Apiñu (Que.; POR); Capuchinha-Tuberosa (Brazil; Por.; USN); Capucine Tubéreuse (Fr.; POR; USN); Cubios (Col.; EGG; POR); Edible Nasturtium (Eng.; POR); Isaño (Arg.; Bol.; Peru; Que.; DLZ; POR); Isaño (Bol.; Peru; Que.; DLZ; POR; USN); Isaño Silvestre (Bol.; Peru; POR; ROE); Isau (Aym.; Peru; POR); Issanu (Aym.; Peru; POR); Kkayacha (Aym.; Peru; EGG; POR); Knollige Kapuzinerkresse (Ger.; POR); Knoll Kapucien (Dutch; POR); Magua (Sp.; USN); Mashua (Bol.; Peru; Que.; POR; USN); Mashwa (Bol.; Callawaya; Col.; Peru; Que.; DLZ; POR); Massua (Peru; RAR); Masua (Sp.; USN); Maxua (Sp.; USN); Mayua (Peru; RAR); Mishwa (Aym.; Bol.; POR); Nasturcja Bulwiasta (Pol.; POR); Nasturzio Tuberoso (It.; POR); Navios (Col.; POR); Navo (Col.; EGG; POR); Osaño (Sa.; POR); Patagonian Capucine (Eng.; POR); Peruanische Knollenkresse (Ger.; POR; USN); Peruvian Capucine (Eng.; POR); Peruvian Nasturtium (Eng.; POR); Puel (Peru; EGG); Toropaeorumu Chuuberosumu (Japan; POR); Tuberosus Nasturtium (Eng.; POR); Tuberosus-Rooted Nasturtium (Eng.; POR); Tuna (Peru; EGG); Tuna Mashua (Peru; RAR); Yanaoca (Que.; EGG); Ysaño (Sa.; POR). (Nscn).

**Activities:**

Aldose Reductase Inhibitor? (f; EGG); Analgesic (f; DLZ); Anaphrodisiac (f; DLZ; EGG); Antioxidant (1; X16968067); Antiseptic (1; EGG); Bactericide (1; EGG); Goitrogenic (f1; EGG); Litholytic (f; RAR).

**Indications:**

Anemia (f; DLZ; EGG); Bacteria (1; EGG); Bladder Stones (f; SOU); Calculus (f; RAR); *Candida* (1; EGG); Childbirth (f; ROE); Circulosis (f; DLZ); Cystosis (f; SOU); *Escherichia* (1; EGG); Fungus (1; EGG); Infection (1; EGG); Kidney Stones (f; SOU); Mastitis (f; SOU); Megamastia (f; SOU); Mycosis (1; EGG); Nephrosis (f; DLZ; RAR); Oliguria (f; DLZ); Pain (f; DLZ); Snake Bite (f; ROE); *Staphylococcus* (1; EGG); Stones (f; RAR; SOU); Thrush (1; EGG); Urogenitosis (f1; EGG); Yeast (1; EGG).

**Dosages:**

FNFF = !! Roots cooked and eaten; young leaf and flowers buds cooked (EGG).

- Bolivians consider root decoction analgesic and diuretic, taking it for oliguria and kidney pain (DLZ).
- Bolivians drink leaf tea for anemia and poor circulation (DLZ).
- Peruvians believe that overindulgence can lower testosterone and dihydrotestosterone (which might be good for prostatitis, bad for impotence (EGG).
- Peruvians suggest taking the root decoction with lime juice and parsley to dissolve bladder and kidney stones (SOU).
- Peruvians take the root decoction for childbirth (ROE).

**Downsides:**

Said to be toxic to burros and mules (DLZ).

**Extracts:**

Contains p-methoxybenzylglucosinolate. Male rats fed tubers in their diet were as capable as the control animals in impregnating females but showed a 45% drop in their blood levels of testosterone/dihydrotestosterone, apparently related to the isothiocyanates (X7057655).

**CHRISTMAS VINE (*Turbina corymbosa* (L.) Raf.) +****CONVOLVULACEAE****Illustrations:**

p 463 (MAX)

**Synonyms:**

*Convolvulus corymbosus* L.; *Ipomoea antillana* Millsp.; *I. burmannii* Choisy; *I. sidaefolia* Choisy; *Rivea corymbosa* (L.) Hallier f.; fide (JTR; USN).

**Common Names:**

Aguinaldo (Cuba; Dor.; AHL; JTR); Aguinaldo Blanco (Cuba; JTR); Aguinaldo de Campanillas (Cuba; JTR); Aguinaldo de Navidad (Cuba; JTR); Aguinaldo de Pascuas (Cuba; JTR); Batatilla (Sp.; IED); Bejuca de Pascuas (Dor.; AHL); Campanilla (Cuba; Sal.; JTR); Campanilla Blanca (Cuba; JTR); Campanita (Dor.; AHL); Christmas Pops (Eng.; USN); Christmas Vine (Eng.; Scn.; AH2; USN); Coatlxoxouqui (Mex.; MAX); Fleurs de Noël (Haiti; AHL); Flor de Pascuas (Mex.; JTR); Liane Blanche (Haiti; AHL); Loquetico (Mex.; MAX); Marie-Claude (Haiti; AHL); Ololiuqui (Mex.; MAX; USN); Pascua (Dor.; AHL); Pascuas (Mex.; JTR); Piule (Mex.; AVP); Snakeplant (Eng.; CR2); Xtabentún (Mex.; MAX).

**Activities:**

Analgesic (f; CRC; MAX); Antiseptic (1; CRC); Aphrodisiac (f; CRC); Carminative (f; CRC; MAX); CNS-Stimulant (1; CRC); Contraceptive (f; CRC; DAW); Diuretic (f; CRC; DAW; MAX); Hallucinogen (1; AHL; CRC; MAX; WOI); Hypnotic (f; JTR); Litholytic (f; MAX); Narcotic (f; AHL; CRC; MAX; UPH; WOI); Poison (1; CRC); Psychomimetic (f; CRC; DAW).

**Indications:**

Calculus (f; CRC); Childbirth (f; CRC; JTR); Chills (f; CRC); Cramps (f; JFM); Dislocations (f; CRC); Divination (f; DAW; MAX); Dysuria (f; CRC); Fractures (f; CRC); Gas (f; CRC; MAX); Gout (f; CRC); Impotence (f; CRC); Infection (1; CRC); Labor (f; JFM); Ophthalmia (f; CRC); Pain (f; CRC; MAX); Paralysis (f; CRC); Parturition (f; DAW); Rheumatism (f; CRC; JFM); Sores (f; CRC; DAW); Stones (f; MAX); Swelling (f; CRC; DAW); Syphilis (f; CRC; MAX); Tumors (f; CRC; MAX); Uterosis (f; JTR).

**Dosages:**

FNFF = X.

- Latinos take 2 g seeds in 190 cc water for cramps (JFM).
- Latinos take 5, 13, 26, 33, or 50 seeds in infusion (JFM).
- Mexican Indians take the seed as narcotic hallucinogen (AHL).

**Downsides:**

Not covered (AHP; KOM; PHR). Excessive indulgence causes loss of one's faculties (JFM). As of July 2007, the FDA Poisonous Plant Database listed 20 titles alluding to toxicity of this species.

**DAMIANA (*Turnera diffusa* Willd. ex Schult.) ++**

## TURNERACEAE

**Illustrations:**

p 242 (CR2)

**Synonyms:**

*Turnera aphrodisiaca* G. H. Ward; *T. diffusa* Willd. ex Schult. var. *aphrodisiaca* (Ward) Urb.; *T. humifusa* Presl; *T. microphylla* Desv. ex Ham.; *T. pringlei* Rose; fide (PCS; USN).

**Notes:**

McGuffin et al. (2000) give “damiana” as the standardized common name for both *T. diffusa* Willd. ex Schult. var. *aphrodisiaca* (Ward) Urb. and *T. diffusa* Willd. ex Schult. var. *diffusa*. They do not cite *T. ulmifolia* which Gupta (1995) lists under the common name “damiana.”

**Common Names:**

Chac Mixib (Maya; JFM); Cumana (Ma.; JFM); Damiana (Brazil; Eng.; Mex.; Spain; CR2; FAC; MPB; USN; VAD); Damiana de Guerrero (Sp.; EB49:205; RAI; USN); Damiane (Fr.; EFS); Escobilla (Sp.; IED); Granizo (Ma.; JFM); Hierba de la Pastora (Mex.; JFM; MAX); Hierba del Pastorcito (Mex.; JFM; MAX); Hierba del Venado (Mex.; MAX; PCS); Kok-Catarro-Asmatico (Maya; Mex.; JFM; MAX); Maria Lopez (Mex.; JFM); Mejorana (Ma.; JFM); Mexican Holly (Eng.; RAI; USN); Miiixkok (Maya; Mex.; MAX); Misib Escoba (Maya; Mex.; MAX); Misibkok (Maya; Mex.; JFM; MAX); Old Woman's Broom (Eng.; JFM); Oreganillo (Dor.; AVP; PCS; RyM); Oregano Cimarrón (Dor.; AHL); Pastorcita (Mex.; JTR; MAX; PCS); Rompe Camisa Blanca (Cuba; AVP); Rompe Camisa Macho (Cuba; JFM; JTR; RyM); Rosemary (Eng.; JFM); Santa Lucita (Ma.; JFM); Swamp Bush (Bel.; BNA); Thé Bourrique (Fr.; Haiti; AHL; RAI; USN); Xmisibcoc (Maya; JFM; PCS); Xmisibkook (Maya; Mex.; JFM; MAX).

**Activities:**

Adaptogenic (f; RAI; X17030478); Anorectic (f; LE2); Antiaging (f; APA); Antidepressant (f; APA; RAI; SKY); Antidiabetic (f; MPB); Antiestrogenic (f; RAI); Antimalarial (f; MPB); Antiseptic (f1; AHL; VAD); Antispasmodic (f; RAI); Antisyphilitic (f; MPB); Antitussive (f; RAI); Anxiolytic (f1; RAI; X15864356); Aphrodisiac (f1; APA; CRC; PED; PH2; RAI; X10227074; X14692728); Astringent (f1; EFS; MPB); Bactericide (1; X12963140); Cardio-tonic (1; HHB); Cerebrotonic (f; MAX; PCS); CNS-Depressant (f1; CRC; RAI); CNS-Stimulant (f1; CRC; HHB; LAF; RAI; VAD); Cough (f; RAI); Depurative (f; PED); Digestive (f; MPB; RAI); Diuretic (f; CRC; GMH; JFM; PED; RAI); Emmenagogue (f; MAD); Energizer (f; APA); Expectorant (f; CRC; GMH; PED; VAD); Euphoric (f; APA; CRC); Gram(+)-icide (1; X12963140); Gram(-)-icide (1; X12963140); Hallucinogenic (f; APA); Hypoglycemic (1; CAN; LE2; RAI; X9683340); Laxative (f; CRC; IED; RAI; SKY; VAD); Myorelaxant (1; PM10:669; X14692728); Nervine (f; RAI); Neurotonic (f; EFS); Orexigenic (f; GAZ; MPB); Purgative (f; CAN; CRC; GMH; VAD); Secretolytic (f; RAI); Stimulant (f; APA; CRC; EFS; GMH; IED); Thermogenic (f; RAI); Thymoleptic (f; CAN); Tonic (f; APA; CRC; GMH; MAX; PED); Toxic (1; GAZ; MAX).

**Indications:**

Albuminuria (f; PCS; RyM); Alcoholism (f; MPB); Amaurosis (f; CRC; MAX); Amenorrhea (f; MAD); Anorexia (f; GAZ; MPB); Anxiety (f; APA; RAI); Asthenia (f; VAD); Asthma (f; APA; JFM; RAI); Atony (f; MAD; MAX); Bacteria (1; X12963140); Bronchosis (f; CRC; JFM; RAI; VAD); Catarrh (f; CRC; IED; MAX); Childbirth (f; RAI); Cholecystosis (f; CRC; MPB); Colds (f; AHL; CRC; HOC; PED); Colic (f; MAD); Constipation (f; APA; GAZ; IED; RAI); Coughs (f; APA; CRC; PED); Cystosis (f; MAX; VAD); Debility (f; MAX; RAI); Depression (f; APA; RAI; SKY; VAD); Diabetes (f1; APA; CRC; JFM; MAX; MPB; RAI; X9683340); Diarrhea (f; MAD); Dysentery (f; CRC; RAI); Dysmenorrhea (f; APA; CRC; EFS; MAD; PED); Dyspepsia (f; CAN; CRC; GAZ; MPB); Dysuria (f; RAI); Enterosis (f; PCS; RyM); Enuresis (f; CRC; JFM; PED; RAI); Fatigue (f; GAZ); Frigidity (f; APA; RAI); Gastrosis (f1; AHL; PCS; RAI; RyM; X12963140); Headache (f; APA; CRC; MAD; PED); Hot Flash (f; RAI); Hyperglycemia (1; X9683340); Hypochondria (f; RAI); Impotence (f1; APA; CRC; PHR; PH2; VAD; X10227074; X14692728); Incontinence (f; GAZ; MAD); Infection (f; AHL); Infertility (f; CRC); Inflammation (f; MAX); Insomnia (f; MAD); Leukorrhea (f; MPB); Malaria (f; MPB; PCS; RyM); Migraine (f; CRC; MAD; PCS); Nephrosis (f; APA; EFS; MAX; MPB; PCS; PED); Nervousness (f; RAI); Neurasthenia (f; CRC; MAD; PCS); Neurosis (f; CRC; MAD; MPB); Obesity (f; LE2); Oliguria (f; JFM; RAI); Ophthalmia (f; JFM; RAI); Orchosis (f; CRC; JFM); Paralysis (f; CRC; JFM; MAD; MPB); Pregnancy (f; HOC); Prostatosis (f; MAD); Spasms (f; RAI); Spermatorrhea (f; CRC; MAD; MAX; RAI); Stomachache (f; CRC; PCS; RAI); Syphilis (f; CRC; MPB); Ulcers (f; MPB; RAI); Thymus (f; RAI); Urethrosis (f; DEM); Vaginosis (f; RAI); VD (f; AHL; IED; MPB; PCS; RyM).

**Dosages:**

FNFF = ! Herbs used in preparing a liqueur by the same name, “damiana,” and also used as a tea substitute (AHL; FAC; PCS). Leaves “are approved by the FDA for flavoring liqueurs” (JFM). 1 tsp fresh leaf (PED); 1 g leaf/cup water 3×/day (SKY); 0.5 g dry leaf (PED); 0.5 g dry leaf:3 g alcohol:2 ml water (PED); 0.5–1 ml leaf tincture tid (YAR); 2–3 ml tincture 3×/day (SKY); 1 dropperful tincture (APA); 2–4 g shoot, as tea, 3×/day (CAN); 2–4 ml liquid shoot extract (CAN); 2–4 ml liquid extract; 0.3–0.6 g damiana extract BPC (PNC); 400–800 mg capsule 3×/day (SKY); 1–2 (400-mg) capsules (APA).

- Bahamans use for childbirth, dysmenorrhea, headache, oliguria, and give decoction to incontinent children 3–4 mornings (JFM; RAI).
- Brazilians suggest the plant for albuminuria, alcoholism, anorexia, asthenia, cholecystosis, cholecocystosis, constipation, debility, diabetes, dyspepsia, impotence, infertility, leukorrhea, malaria, nephrosis, neurosis, nocturia, paralysis, respirosis, rheumatism, sore, syphilis, and vaginosis (MPB; RAI).
- Colombians and Guatemalans take leaf tea as aphrodisiac (JFM).
- Cubans use the plant decoction in aromatic baths and as a aphrodisiac, diuretic, and stimulant (JFM; RAI; RyM).
- Haitians use for colds, enterosis, impotence, and VD (RAI).
- Mexican Indians use leaf tea as a tonic in impotence, muscular and nervous debility (JFM).
- Mexicans suggest the infusion for amaurosis caused by tobacco abuse, also for asthma, bronchosis, cold, constipation, cough, diabetes, dysentery, dysmenorrhea, dyspepsia, dysuria, earache, enterosis, flu, headache, impotence, infection, malaria, nephrosis, neurosis, ophthalmia, paralysis, stomachache, syphilis, and vaginosis (JFM; MAX; RAI).
- Yucatanese take flower/leaf decoction for asthma and bronchosis (JFM).

**Downsides:**

Class 1 (AHP). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). “No significant adverse effects ...

Persons claiming to experience damiana-induced hallucinations should be monitored closely” (LRN, Feb. 1989). Reported convulsions from high dose (one report only), quinones, and cyanogenic glycosides (CAN). Because of possibility of cyanogenic glycosides and risk of cyanide toxicity in high doses, its use in pregnancy and lactation is to be avoided. May interfere with hypoglycemic therapy (CAN; VAD). Leaves laxative, may loosen stools in large doses. Tetraphyllin B is reportedly toxic (GAZ). As of July 2007, the FDA Poisonous Plant Database listed 15 titles alluding to toxicity of this species.

**Extracts:**

Volatile oils diuretic, expectorant and laxative; irritate mucous membranes and increase the production of, while decreasing the thickness of, fluids produced by these membranes (PED). Roots uteroactive. Dichloromethane extracts relaxed corpus cavernosum smooth muscle strips (PM10:669; X14692728). Hexane extract showed antibacterial activity against Gram-positive and Gram-negative bacteria (X12963140). One study shows treatment with the traditional plant preparation significantly decreasing the hyperglycemic peak a/o area under the glucose tolerance curve (X9683340), while another study using water ethanol extract shows no hypoglycemic activity (X12112298). Not specific, one study of damiana, identified only as *Turnera* spp. increased copulatory ability in impotent rats (YAR). A formula containing damiana, guarana, and maté delayed gastric opening, prolonged satiety, and induced significant weight loss (probably more due to the caffeine and guarana, so entered as folklore).

**WILD DAMIANA (*Turnera ulmifolia* L.) ++**

**TURNERACEAE**

**Illustrations:**

fig 36 (RYM); p 550 (MPG)

**Synonyms:**

*Turnera alba* Liebm.; *T. angustifolia* Mill.; *T. caerulea* DC.; *T. mollis* HBK.; *T. trioniflora* Sims.; *T. ulmifolia* L. *intermedia* Urban; *T. velutinia* Presl.; fide (HOC; PCS; RyM).

**Notes:**

Picking a common name was difficult. The three offered by the USDA (USN) all are misnomers, suggesting instead “alder,” “holly,” “rose,” or “sage,” none exactly appropriate. “Damiana” is among common names cited in Latin America but McGuffin et al. (2000) give “damiana” as the standardized common name for both *T. diffusa* Willd. ex Schult. var. *aphrodisiaca* (Ward) Urb. and *T. diffusa* Willd. ex Schult. var. *diffusa*. They do not however cite *T. ulmifolia* which Gupta (1995) lists under the common name “damiana.” Burkill (1966) says this American species ran wild in India over a century ago, and now has run wild in Java and Malaya. Chinese herbalists reportedly stock it in Singapore (IHB).

Flowers sessile; petiole eglandular . . . . . *T. diffusa*  
 Flowers pedicellate, the pedicel fused with leaf stalk; petiole biglandular . . . *T. ulmifolia*

**Common Names:**

Albina (Brazil; Por.; AVP; JFM; MPB); Amaranto (Mex.; AVP; JFM; MAX); Buttercup (Eng.; JFM); Caléndula (Mex.; AVP; MAX; PCS); Catbush (Bah.; HOC); Chanana (Brazil; MPB; MPG); Claudioso (Bel.; BNA); Clavel de Cristo (Bel.; BNA); Clavel de Oro (Bel.; Mex.; BNA; MAX; MPG; PCS); Cumaná (Ven.; AVP; MPG); Damiana (Brazil; Col.; Eng.; AVP; FAC; MPG); Dash Along (Eng.; HOC; JFM); Di Thym (Fr.; JFM); Du Thym (Haiti; AHL); Elm-Leaved Turnera (Eng.; Jam.; AVP); Escoba (Ma.; JFM); Escobillo (Ma.; Sal;



AVP; JFM); Escobillo Blanco (Ma.; JFM); Flor de San Lorenzo (Sal.; AVP); Granizo (Dor.; AVP; MPG); Großblättrige Damiana (Ger.; USN); Hierba de la Pastorcita (Mex.; MPG); Holly Rose (Eng.; JFM); Jamaica Herb (Bel.; BNA); Lalo (His.; AHL); Lida Kuching (Malaya; IHB); Malva (Col.; AVP; JFM; MPG; PCS); Malva Cimarrona (Ma.; JFM); Manzanilla de los Campos (Nic.; MPG); Margarita de los Campos (Nic.; AVP); Maria Lopez (Cuba; Dor.; Nic.; MPG; PCS); Marilópe (Cuba; Sp.; AVP; MPG; RyM); Marilope du Thym (His.; AHL); Marí López (Cuba; Dor.; Mex.; Pr.; Sp.; AVP; MAX; PCS; RyM); Oreganillo (Dor.; MPG); Oreja de Coyote (Nic.; AVP; MPG; PCS); Pastorcito (Mex.; AVP); Ram Goat Dashalong (Eng.; JFM; USN); Ram Goat National (Eng.; JFM); Ram Goat Rational (Eng.; JFM); Saca Estrepe (Brazil; MPB); Sage-Rose (Eng.; AVP; USN); San Juan (Nic.; AVP; PCS); Santa Lucia (Col.; AVP); Sereno (Ma.; JFM); Tapalayote (Ma.; JFM); Thym (Haiti; AVP); Thym à Feuilles d'Orme (Haiti; AVP); Thym des Savanes (Fr.; Guad.; St. Bart.; AVP); Thym Marron (Haiti; AVP); Turnère (Fr.; Guad.; AVP); Turnère B Feuilles d'Orme (Fr.; St. Bart.; AVP); West Indian-Holly (Eng.; USN); Wild Damiana (Bel.; BNA); Yellow-Alder (Eng.; USN); Yellow Flower (Eng.; JFM); Yerba del Ahorcado (Ma.; JFM); Zherbe Cimetièrre (Haiti; AVP); Zherbe Dimetièrre (Haiti; JFM); Zombi Nan Bois (Haiti; AVP; JFM). (Nscn).

### Activities:

Abortifacient (f; MPG); Analgesic (f; JFM; MPG; RyM); Antiedemic (1; X9705013); Antihistaminic (1; X9705013); Antiinflammatory (1; X16226027; X16876965; X9705013); Antioxidant (1; X16226027; X16876965); Antiprostaglandin (1; X9705013); Antiulcer (1; X11995930; X9705013); Astringent (f1; MPB); COX-2-I? (1; X9705013); Cyanogenic (1; MPG); Emmenagogue (f; DAW; JFM); Expectorant (f; GMH; MPB; RyM); Febrifuge (f; DAW); Gastroprotective (1; X11995930; X9705013); Hemostat (f; MPG; RyM); Insecticide (1; MPG); Larvicide (1; MPG); Laxative (f; JFM); Mosquitocide (1; MPG); Spasmogenic (1; MPG); Stimulant (f; RyM); Stomachic (f; JFM); Tonic (f; GMH; JFM; MAX; MPB; PCS); Vasodilator (1; MPG).

### Indications:

Allergies (1; X9705013); Backache (f; AHL); Bilioussness (f; WOI); Bleeding (f; MPG; RyM); Bronchosis (f; JFM; MAX); Cancer (f; MPB); Catarrh (f; MPG; RyM); Childbirth (f; JFM); Colds (f; MPG; RyM); Colic (f; JFM); Congestion (f; GMH; MPB; RyM); Constipation (f; JFM); Cramps (f; JFM); Diabetes (f; MPB); Diarrhea (f; JFM; MPG; RyM); Dysentery (f; WOI); Dysmenorrhea (f; DAW; JFM; MPG; RYM); Dyspepsia (f; MAX; PCS); Edema (1; X9705013); Fever (f; DAW; JFM); Gastrosis (f1; MPG; RyM; X11995930; X9705013); Headache (f; JFM); Hemorrhoids (f; JFM); Hepatosis (f; HOC); Hyperacidity (f; JFM); Impotence (f1; YAR); Inflammation (1; X16226027; X16876965; X9705013); Insomnia (f; MPG; RyM); Leukorrhea (f; MPB); Lumbago (f; DAW); Menorrhagia (f; RyM); Nephrosis (f; MPG; RyM); Neuralgia (f; JFM); Ovary (f; JFM); Pain (f; JFM; MPG; RyM); Puerperium (f; DAW); Pulmonosis (f; PCS); Respirosis (f; JFM; MPG; RyM); Rheumatism (f; WOI); Sores (f; DAW; JFM); Splinter (f; MPB); Stomachache (f; MPG; RyM); Swelling (1; X9705013); Tension (f; JFM); Toothache (f; AHL; JFM); Tumors (f; MPB); Ulcers (1; X11995930; X9705013); Vertigo (f; AHL).

### Dosages:

FNFF = ! Dried leaves used for beverage teas or flavoring (FAC; HOC; JFM). Leaf tincture 0.5–1 ml tid (YAR).

- Argentinians use decoction for headache, neuralgia, tension, and sweetened for bronchitis, convalescence, and dyspepsia, claiming it sharpens retarded children (JFM).
- Bahamans take decoction for colds during menstruation, constipation, and pediatric colic (JFM).
- Brazilians use bruised leaves to remove thorns and resolve tumors (MPB).
- Brazilians use the tea to treat gastric dysfunction, e.g., gastric and duodenal ulcers (X11995930).

- Colombians use leaf/shoot decoction as aphrodisiac (MPG).
- Cubans use leaf/flower decoction for diarrhea and stomachache, insomnia, kidney problems, menstrual pain and bleeding, respiratory problems like cough and catarrh (MPG; RyM).
- Dominicans suggest the plant for backache, toothache, and vertigo (AHL).
- Haitians boil 5–15 g in 1 liter water as anodyne, stomach, tonic, and using for toothache (JFM).
- Jamaicans use leaves as abortifacient (MPG), for acid stomach, cold, fever, and as a beverage tea (JFM).
- Mexicans take plant decoction as tonic and for bronchitis and dyspepsia (JFM; MAX).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.

**Extracts:**

Caffeine reported from seed (MPG). Not specific, one study of damiana, identified only as *Turnera* spp., increased copulatory ability in impotent rats (YAR).

Lyophilized infusion of aerial parts tested in trinitrobenzenesulphonic (TNBS) acid model of rat colitis, showed pretreatment at 250 and 500 mg/kg significantly attenuated induced colonic damage (X16876965). In one study, hydroethanolic leaf extract exhibited greater antioxidant activity (77.4%  $\pm$  0%) than alpha-tocopherol (58.4%  $\pm$  3.7%) (X16226027). Aqueous fraction of aerial parts significantly reduced the formation of gastric and duodenal mucosa lesions (X11995930). Hydroalcoholic extracts of the aerial parts inhibited carrageenan-induced edema (rat/mice), and cotton pellet granuloma and the increase of vascular permeability. Compared to NSAIDs, the hydroalcoholic or ethanolic fraction did not potentiate gastric mucosal lesions induced by aspirin, but inhibited the appearance of gastric lesions induced by indomethacin, ethanol and pylorus ligation, but not those induced by stress (X9705013).

## CLAVO HUASCA (*Tynanthus panurensis* (Bureau) Sandwith) ++

### BIGNONIACEAE

**Synonyms:**

*Schizopsis panurensis* Bureau

**Notes:**

Three other Brazilian species (MPB) smell of clove and bear the Portuguese name “cipo cravo” (cravol is clove in Portuguese). Two species of *Tynanthus* are in the USDA Nomenclature Database (USN) and one not-very-productive abstract in PubMed. The smell of clove is largely due to eugenol. The stronger the smell, I speculate, the more eugenol. The more eugenol, the more the herb will share the activities of eugenol (see USDA Phytochemical Database <http://www.ars-grin.gov/duke> for the many reported activities of eugenol). Regrettably, McGuffin et al. (2000) have given one Brazilian species whose common name translates “clove vine” (cipo cravo) the standardized common name “tynanthus.”

**Common Names:**

Canela (Peru; EGG); Cipó Cravo (Brazil; RAI); Cipó Trinidad (Brazil; RAI); Clavo Huasca (Peru; Sp.; LOR; MDD); Clove Vine (Eng.; DAV); Garabato (Peru; EGG); Iñéjkeu (Bora; Peru; Sp.; EGG; LOR); Rabo Nishi (Peru; Shipibo/Conibo; EGG); White Clove (Eng.; RAI).



**Activities:**

Analgesic (f1; RAI; X15826030); Antioxidant (1; X15826030); Antiradicular (1; X15826030); Aphrodisiac (f1; DAV; RAI; X15826030); Carminative (f; RAI); Digestive (f; RAI); Febri-fuge (f; DAV); Orexigenic (f; RAI); Stimulant (f; DAV); Tonic (f; X15826030); Vermifuge (f; RAI).

**Indications:**

Anorexia (f; RAI); Arthritis (f; RAI); Backache (f; RAI); Cancer (f; EGG); Diabetes (f; EGG; X15826030); Dyspepsia (f; RAI); Enterosis (f; RAI); Fever (f; DAV); Frigidity (f; DAV; HAD; RAI); Gas (f; RAI); Impotence (f; DAV; RAI; X15826030); Myalgia (f; RAI); Pain (f1; RAI; X15826030); Rheumatism (f; DAV); Toothache (f; DAV; RAI); Worms (f; RAI).

**Dosages:**

FNFF = ? Used apparently as tea or spice, almost like clove (JAD). 3–4 ml bark tincture 4:1, 2×/day (RAI).

- Brazilians use for anorexia, arthritis, dyspepsia, enterosis, gas, impotence, rheumatism, and worms (RAI).
- Ecuadorians use for arthritis, fever, impotence, myalgia, pain, and rheumatism (RAI).
- Peruvians use for arthritis, cancer, colds, backache, diabetes, fever, frigidity, impotence, myalgia, rheumatism, and toothache (DAV; EGG; RAI).

**Extracts:**

The traditional hydroalcoholic extract showed moderate antioxidant activity (X15826030).

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# U

## CAT'S CLAW (*Uncaria tomentosa* (Willd. ex Schult.) DC.) ++

### RUBIACEAE



#### Illustrations:

p 165 (CR2)

#### Synonyms:

*Nauclea tomentosa* Willd. ex Schult. (basionym); fide (USN).

#### Notes:

Most natives I have encountered in Peru do not distinguish between *U. guianensis* and *U. tomentosa*, and I fear many collectors and dealers do not distinguish them. I strongly suspect that many of the entries here may apply to either species, so beware, especially in activities, indications, and the long list of chemicals. I am no more reliable than my sources. Some local taxonomists, students of the late Al Gentry, have taught the ACEER and NAPO affiliates to distinguish the species, the *guianensis* having strongly recurved "claws." Both species co-occur in various parts of Peru. Buhner (2005) aggregates the two species in his Lyme disease protocol, one I may need if my polyalgia rheumatica turns out to be advanced Lyme disease; phytochemists might find that alarming. Surely Buhner's use of "cat's claw" in Lyme is a relatively new development. But so is most of the folklore. So far I find no published folk medicinal references before 1994. Look at the long list of indications (more than 30, including prostatitis) today for Peru, listed by naturopath Leslie Taylor alone (RAI). "Cat's claw (*U. tomentosa*) has been used medicinally by the Aguaruna, Ashaninka, Cashibo, Conibo, and Shipibo tribes of Peru for at least 2,000 years" (RAI). But there's nothing in my meager library to prove that. I am reminded that the only place I ever read that the American Indians used saw palmetto for the prostate was in a paper by allopaths in JAMA. Taylor (2005) may be right, but you'd think that there would be more in print for something used folklorically by at least 5 tribes. I cannot find it.

**Common Names:**

Bejuco de Agua (Pan.; Sp.; IED; MCK); Cat's Claw (Eng.; Scn.; AH2; CR2; USN); Garabato (Peru; RAR); Garabato Amarillo (Peru; MPG); Jipotatsa (Sp.; MCK); Rangayo (Peru; Sp.; MCK; RDF3:5); Samento (Sp.; LYM; RDF3:5); Saventaro (Ashaninka; MCK); Tua Juncara (Sp.; MCK); Uña de Gato (Ocn.; Peru; Sp.; Spain; AH2; LOR; MDD; USN; VAD); Uña de Gavilan (Peru; DAV); Unganangui (Peru; RAR; RDF3:5).

**Activities:**

Analgesic (1; LYM); Antiaggregant (1; LYM; MCK; PH2; RAI); Antialzheimeran (1; MCK); Antiamyloidosis (1; MCK); Antiapoptotic (1; MCK); Antiarrhythmic (1; X12546715); Antiarthritic (2; X11950006); Anticoagulant (1; LYM); Antidepressant (1; LYM); Antidiabetic (f; MBC); Antidysenteric (1; LYM); Antiedemic (1; APA; HH3; LYM; PH2); Antifertility (1; RAI); AntiHIV (1; APA; MCK); Antihypertensive (1; PH2); Antiinflammatory (f1; APA; LYM; MCK; PH2; SKY; VAD); Antileukemic (1; LYM; PH2; RAI); Antimelanomic (1; APA; 60P); Antimetastatic (1; MBC); Antimutagenic (1; APA; HH3; LYM; RAI; 60P); Antioxidant (1; LYM; MCK; VAD; 60P); Antiprogesteric (1; MCK); Antiproliferant (1; X14636838); Antiprostaglandin (1; RDF3:5); Antiradicular (1; MCK; 60P); Antirheumatic (f1; MCK); Antirhinoviral (1; HH3); Antisarcomic (1; HH3; 60P); Antistomatitic (1; HH3); Antithrombic (1; PH2); Antitumor (1; APA; HH3; LYM); Antiulcer (f1; MBC; MCK); Antiviral (12; APA; HH3; LYM; RAI; 60P); Aphrodisiac (f; MBC); Apoptotic (1; PH2); Bactericide (1; APA); Calcium-Antagonist (1; PH2; X12546715); Contraceptive (f1; HH3; LYM; MBC; MPG; PH2; 60P); COX-2-Inhibitor (1; RDF3:5); Cyclooxygenase-Inhibitor (1; RDF3:5); Cytoprotective (1; MCK); Cytostatic (1; MPG; 60P); Depurative (f1; LYM; MCK; RAI); Detoxicant (1; LYM; RAI); Diuretic (1; RAI); Dopaminergic (1; FNF); Estrogen-Agonist (1; MCK); Febri-fuge (1; HH3); Gastroprotective (1; MCK); Hypocholesterolemic (1; LYM; RAI); Hypotensive (1; RAI; X14668978); Immunostimulant (1; APA; HH3; LYM; SKY; VAD); Interleukino-genic (1; PH2); Leukocytogenic (1; LYM); 5-Lipoxygenase-Inhibitor (1; MCK); Mutagenic (1; ISSN:0250-7005); NF-kB-Inhibitor (1; LYM); Phagocytotic (1; APA; HH3; 60P); TNF-Inhibitor (1; RAI); Tonic (f1; LYM); Vasodilator (1; RAI; X14668978); Vulnerary (1; LYM).

**Indications:**

Allergies (1; APA; HH3); Alzheimer's (f1; MCK; RAI); Amyloidosis (1; MCK); Anxiety (f; MCK); Arrhythmia (1; X12546715); Arthrosis (f12; APA; HH3; LYM; X11950006; 60P); Ascites (1; HH3); Asthenia (f1; RDF3:5); Asthma (f; APA; LYM; MBC; PH2; VAD); Bleeding (f; MCK); Borrelia (12; LYM); Cancer (f1; APA; HH3; MPG; PH2; RAI; 60P); Cancer, breast (1; ISSN:0250-7005); Candidiasis (f; APA); Cardiopathy (f1; RAI; X14668978); Childbirth (f; MCK); Cirrhosis (f; LYM; MBC; MPG); Colds (f; RAI); Colic (f; MBC); Colitis (f; RAI); Crohn's (f; RAI); Cystosis (f; VAD); Debility (f; MCK); Depression (f; RAI); Dermatoses (f; HH3; LYM; MBC); Diabetes (f; VAD; 60P); Diverticulosis (f; RAI); Duodenosis (f; VAD); Dysentery (f1; LYM; RAI); Dysmenorrhea (f; MCK; PH2; VAD); Dyspepsia (f; APA); Edema (1; APA; HH3; LYM; SKY); Enterosis (f1; APA; RAI); Fever (f1; HH3; LYM; MCK); Flu (f; RAI); Gastrosis (f1; APA; DAV; HH3); Gonorrhoea (f; RAI); Gout (1; JAD); Hemorrhoids (1; APA); Hepatoses (f; MPG); Herpes (f1; HH3; RAI); High Blood Pressure (1; X14668978); High Cholesterol (1; LYM; RAI); HIV (1; APA); IBS (f; RAI); Immune Dysfunction (1; APA; MPG; SKY); Impotence (f; MBC); Infection (1; HH3; MPG); Inflammation (f1; APA; LYM; MPG; RAI; SKY); Ischemia (1; X12546715); Leaky Gut (f1; RAI); Leukemia (f; RAI); Leukopenia (1; LYM; X12622460); Lyme (1; LYM); Lymphoma (1; RAI); Melanoma (1; APA); Metastasis (1; MBC); Myalgia (1; LYM); Nephrosis (f; MBC); Neuralgia (f; RAI); Neuroborreliosis (1; LYM); Neurodermatosis (f; HH3); Ostealgia (f; LYM; MCK); Osteoarthritis (f; VAD); Osteoporosis (12; MCK); Pain (f1; LYM; MBC); Parkinson's (1; MCK); Pneumonia (1; LYM); Prostatitis (1; APA; LYM; MBC); Rheumatism (f12; MBC; MPG; RAI; X11950006);

Rhinovirus (1; HH3); Sarcoma (1; MPG); Shingles (f; RAI); Snake Bite (f; MBC); Sores (f; MBC); Stomatosis (1; HH3); Stroke (f; RAI); Swelling (1; HH3); Thrombosis (1; PH2); Ulcers (f1; APA; DAV; LYM; MCK; VAD); Urethrosis (f; MCK); VD (f; RAI); Viruses (f1; HH3; MPG; RAI); Wounds (f; HH3; LYM; RAI); Yeast (f; APA).

### Dosages:

FNFF = ? Not generally recognized as food. Bark decoction used to wash deep wounds, 2×/day (MCK). 20 g root bark/l water (HH3); 1 g root/cup tea 3×/day (SKY); 30 g powdered root/800 ml water simmered to 500 ml (PH2); 1 tsp decoction (SF); 1 cup decoction 2×/day (RAI); 2–4 ml tincture 2×/day (RAI); 1–2 ml tincture 1–2×/day (SKY); 1–2 (500 mg) bark capsules 3×/day (APA); 1–2 (500 mg) capsules 3×/day (NH); 2 (505 mg) StX capsules/day (NH); 20–60 mg StX. Fernando Cabieses seems to believe the folk contraceptive dosage; boiling 11–13 pounds root until it is reduced to 1 cup (pretty tricky).

- Ashaninka use for arthritis, asthma, bone ache, cancer, urinary inflammation, and to prevent conception and diseases in general (MCK; RAI).
- Brazilian Yanomami take *U. guianensis* stem infusion for diarrhea and stomachache (MCK).
- Colombians take for dysentery and gonorrhea (RAI).
- Peruvians boil 2 tbsp bark in 1.5 liter water, taking ½ glass 3×/day before meals (MPG).
- Peruvians suggest the herb for abscesses, arthritis, asthma, bleeding, blood disorders, bone ache, cancer, cirrhosis, dermatosis, diabetes, diarrhea, dysentery, dysmenorrhea, enterosis, fever, gastrostis, gonorrhea, herpes, HIV, immunodepression, inflammation, nephrosis, prostatitis, rheumatism, shingles, tumors, ulcers, urogenitosis, and wounds (RAI).
- Surinamese take for dysentery, enterosis, and wounds (RAI).

### Downsides:

Class 4 (AHP). Too new to have much toxicity data, I think it as innocuous as coffee. But only time will tell. Foster (1996) cautions that, like other immunostimulants, including his favorite echinacea, cat's claw should be avoided in such immune disorders as HIV, MS, and tuberculosis. Not shown safe in children and lactating or pregnant women (SF). Peirce (1999) reports European anecdotal reports suggesting that "cat's claw" taken with AZT can be beneficial with AIDS patients (APA). McGuffin et al. (1997) cite Ken Jones who contraindicates for patients receiving organ transplants or skin grafts, hemophiliacs prescribed fresh blood plasma; simultaneous administration of certain vaccines, hormone therapies, insulin, thymus extracts; not for children under 3 years (AHP). Gruenwald et al. (2000) warn of precipitous drops in estradiol and progesterone serum levels, following 8 weeks uses. Extracts prevent estrogen from binding to estrogen receptors on breast cancer cells. As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

### Extracts:

Oxyindole alkaloids stimulate the immune system (SKY). Isopteropodine stimulates phagocytosis (EC13.6 = 1 µg/l, EC55.3 = 10 mg/l); isomitraphylline, isorhynchophylline, and peropodine only half as effective at 1 µg/l (HH3). Alkaloids and glycosides may account for antiinflammatory and antioxidant activities (SKY). Sterols antiinflammatory (PH2). Hirsutine blocks ganglia and induces dopamine release. Leaf extracts more active against breast cancer than bark extracts (MCK). Aqueous extracts more efficient as COX-2-Inhibitors, ethanolic, as COX-1-Inhibitor (RDF3:5). Tanniferous extracts contraceptive (6.25–25 mg/kg mus) (HH3). Apparently and regrettably, there are two strongly different chemotypes within this species, further confounding the possibility that natives may be providing both *U. guianensis* and *U. tomentosa*. Quinovic-acid-glycosides, antiviral, antirhinoviral with MICs ca.

20–30 µg but toxic at around 80 µg/ml (TD50 = 80 µg/ml) (HH3). LD50 (acidic extract) = > 300 ipr mus, LD50 (acidic extract) = >16,000 orl mus (HH3).

## NETTLE TREE (*Ureia baccifera* (L.) Gaudich. ex Wedd.) +

### URTICACEAE



#### Illustrations:

p 406 (DLZ)

#### Synonyms:

*Urtica baccifera* L. (basionym); fide (USN).

#### Common Names:

Bois Fredoche (Guad.; AVP); Cansansao (Brazil; AVP); Cansansao de Espinho (Brazil; AVP); Chichicaste (Cuba; Guat.; Hon.; Sal.; AVP); Chichicaste Blanco (Ma.; JFM); Chichicaste Buyanigua (Ma.; JFM); Chichicastle Blanco (Ma.; JFM); Chichicaston (Ma.; JFM); Chichicastre (Cuba; JFM; JTR); Chichicate (Cuba; AVP; JTR); Chichicazte (Guat.; JFM; JTR); Chichicazte Nigua (Sal.; JFM); Cow-Itch (Bel.; Eng.; AVP; BNA); Feuilles Enragees (Ma.; JFM); Guaina (Col.; AVP; JFM); Guaritoto (Ma.; JFM); Hishis Movu (Amahuaca; EGG; RAR); Hoja de Chichicastre (Cuba; JTR); Ishanga (Peru; AVP); Ishanga Moe (Peru; EGG; LOR); Jamo (Cuba; JFM; JTR); La (Ma.; JFM); Laal (Bel.; BNA); Laal Tzimin (Ma.; JFM); Lah (Ma.; AVP); Maman Guepe (Haiti; AVP); Mara Mara (Peru; Sp.; LOR; MDD); Náha (Aguaruna; EGG); Nettle (Eng.; JTR); Nettle Tree (Eng.; JFM); Nigua (Ma.; JFM); Niguilla (Ma.; JFM); Nixtiaya (Tukano; SAR); Nyana Meesumee (Siona; SAR); Orgiga (Mex.; AVP); Ortie Baccifere (Guad.; AVP); Ortiga (Bel.; Cr.; Cuba; Pan.; AVP; JTR); Ortiga Blanca (Pr.; JFM; JTR); Ortiga Brava (Arg.; Pr.; AVP); Ortiga Colorado (Arg.; Pr.; AVP; JFM); Ortiga de Caballo (Ecu.; Mex.; AVP; JTR); Ortiga de Cipo (Ma.; JFM); Ortiga de la Tierra (Pr.; JTR); Ortiga de la Tierra Cipo (Ma.; JFM); Ortigao (Uru.; AVP); Pica Pica Brava (Bol.; DLZ); Pino Guazu (Arg.; AVP); Pringamosa (Col.; JFM; JTR); Pringamoza (Col.; Dor.; Ven.; AVP); Pringamoza Aguardientera (Ma.; JFM); Pringamoza de la Chiquita (Dor.; AVP); Pringamoza de Montanya (Col.; AVP); Pringamoza (Ven.; JTR); Punu (Brazil; AVP); Pyno Guasu (Par.; MPG); Quemador (Mex.; AVP); Raiz Brava (Ma.; JFM); Stinging Nettle (Eng.; DAV); Urtica (Col.; SAR); Urtiga Brava (Brazil; MPB); Urtiga Bronca (Ma.; JFM); Urtiga Fogo (Brazil; MPB); Urtiga Grande (Brazil; MPB); Urtiga Grauda (Ma.; JFM); Urtigao (Brazil; AVP); Urtiga Vermelha (Brazil; MPB); Wentu (Waorani; SAR); Yamo (Cuba; AVP). (Nscn).

**Activities:**

Analgesic (f1; BEJ; DAV; X10883324); Antiarthritic (f1; DAV); Antidiabetic (f; MPG); Anti-edemic (1; X10883324); Antidote (f; JFM); Antiinflammatory (f1; DAV; MPG; X10883324; X11021310); Aperient (f; MPB); Diuretic (f; DAV; MPB); Emmenagogue (f; MPB; JTR); Febrifuge (f; DAV); Hemostat (f; MPB); Litholytic (f; JFM); Rennet (f; DLZ); Resolvent (f; MPB); Rubefacient (1; DAV; JAD); Vesicant (1; DAV; JAD).

**Indications:**

Amenorrhea (f; DAV; EGG; MPB; RAR); Arthrosis (f1; DAV); Bilioussness (f; JTR); Bleeding (f; JFM; MPB); Bleennorrhagia (f; JTR); Burns (f; JFM); Calculus (f; JTR); Chills (f; DAV); Dermatitis (f; MPG; SAR); Diabetes (f; MPG); Edema (1; X10883324); Erysipelas (f; SAR); Fever (f; DAV); Fungus (f; MPG); Gallstones (f; JFM); Gonorrhoea (f; DAV); Infection (f; MPG); Inflammation (f1; DAV; MPG; X10883324; X11021310); Leukorrhoea (f; DAV; RAR); Malaria (f; DAV; PCS); Myalgia (f; BEJ; EGG; SAR); Pain (f1; BEJ; DAV; X10883324); Pulmonosis (f; JFM); Rheumatism (f; DAV); Ringworm (f; MPG); Snake Bite (f; SAR); Sores (f; MPG); Stings (f; SAR); Stones (f; JFM); Swelling (1; X10883324); VD (f; DAV; EGG; RAR); Wounds (f; MPG).

**Dosages:**

FNFF = ! Chami cook and eat after removing thorns (DAV).

- Bolivians use the leaf decoction to curdle milk (DLZ).
- Brazilians use root decoction to bring on the period (MPB).
- Colombian Choco use leaf infusion for erysipelas, the root decoction for gonorrhoea (JFM).
- Cubans take root decoction as diuretic and litholytic for gallstones (JFM).
- Peruvians sting themselves with nettle for arthritis, bites, myalgia, persistent fevers, rheumatism, and stings (EGG).
- Quechia and Waorani use for the sting of the bullet ants (SAR).

**Downsides:**

Contact with stinging hairs (though possibly alleviating arthritis) causes pain for hours or days, followed by numbness (some people may have fever, swelling, and ulcers) (JFM). As of July 2007, the FDA Poisonous Plant Database listed nine titles alluding to toxicity of this species.

**Extracts:**

Aqueous extracts (500 mg/kg i.p. rat) showed an antiinflammatory activity comparable with that of indomethacin but not when used orally (500 mg/kg p.o.) (X11021310). Aqueous extracts showed dose-dependant peripheral analgesic activity, at a range of 25–100 mg/kg i.p. rat, and antiinflammatory activity (X10883324).

## ISHANGA (*Urera caracasana* (Jacq.) Griseb.) +

### URTICACEAE

**Illustrations:**

p 197 (MD2)

**Synonyms:**

*Urtica baccifera* L.; *U. caracasana* Jacq. (basionym); fide (USN).

**Notes:**

Most of my Latin American books separate *Urera baccata* from *Urera caracasana*, though their colloquial names and medicinal uses are often very similar. I too am treating them

separately. though I think they may be used “generically” for medicine. The fruits are used as fish bait (EGG).

**Common Names:**

Aataahe (Bora; Peru; EGG); Alcu Cansanção (Brazil; MPB; RAR); Alcu Ishanga (Peru; RAR); Caracasana (Brazil; MPB); Cunshi Ishanga (Peru; DAV); Cushi Ishanga (Peru; EGG); Ishanga (Peru; EGG; RAR); Ishanga Blanca (Peru; RAR); Ishanga de Agua (Peru; RAR); Ishanga Macho (Peru; DAV); Ishishmoe (Amahuaca; MD2); Matirik (Amarakaeri; Huachipaeri; MD2); Mohe (Shipibo/Conibo; EGG; MD2); Mohe Ishanca (Shipibo/Conibo; MD2); Ortiga (Peru; EGG; RAR); Purichi (Bol.; Santa Cruz; DLZ); Shapona (Ese'ēja; MD2); Tanko (Piro; Yine; MD2); Urtiga Brava (Brazil; MPB). (Nscn.).

**Activities:**

Febrifuge (f; DAV); Hemostat (f; DAV).

**Indications:**

Arthritis (f; EGG); Bleeding (f; DAV; MPB); Cancer, brain (f; DAV; JLH); Cerebrosis (f; DAV); Childbirth (f; EGG); Colic (f; MD2); Dermatitis (f; EGG); Dysmenorrhea (f; MPB); Erysipelas (f; DAV); Fever (f; DAV; MD2); Metrorrhagia (f; MPB); Poison Ivy (f; DAV; PCS); Pulmonosis (f; MPB); Respirosis (f; RAR); Rheumatism (f; EGG); Syphilis (f; DAV; MPB; PCS); VD (f; DAV; MPB; PCS).

**Dosages:**

FNFF = !

- Brazilians recommend the root as diuretic, the leaf juice as hemostat (MPB).
- Mexicans use for poison ivy and syphilis (DAV).
- Panamanians use for brain cancer (DAV).
- Peruvians sting themselves with nettle for arthritis, bites, myalgia, persistent fevers, rheumatism, and stings (EGG).
- Vaupes Indians use the plant infusion for erysipelas, the roots for bleeding (DAV).

**Downsides:**

Contact with stinging hairs (though possibly alleviating arthritis) causes pain for hours or days, followed by numbness (some people may have fever, swelling, and ulcers) (JFM).

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# V

## VANILLA (*Vanilla planifolia* Andrews) +++

### ORCHIDACEAE

#### Illustrations:

p 751 (CR2)

#### Synonyms:

*Myrobroma fragrans* Salisb.; *Vanilla fragrans* auct.; fide (USN).

#### Notes:

There are some 90 poorly distinguished species, only some, especially the subject species, known to produce the aromatic spice. Some common names below taken from *V. aromatica* and *V. odorata*.

#### Common Names:

Banilje (Dutch; AVP); Banilla (Sp.; EFS); Banira (Japan; USN); Baunilha (Por.; AVP; USN); Bejucillo (Col.; IED); Bonne Vanille (Mart.; AVP); Bourbon Vanilla (Eng.; Ocn.; AH2; USN); Canela de Cuya (Sp.; JFM); Canilla Moena (Peru; RAR); Capi (Amahuaca; Peru; RAR); Cuyanquillo (Sp.; JFM); Gousses Vanille (Haiti; AHL; AVP); Karroub Amerika (Arab.; AVP); Madagascar Vanilla (Eng.; Ocn.; AH2); Mexican Vanilla (Eng.; Guy.; Jam.; Ocn.; Tin.; AH2); Misi (Culina; Peru; RAR); Muqui (Cashibo; RAR); Pois Vanille (Haiti; AHL; AVP); Sanu Ñunu (Peru; RAR); Serimpineri (Peru; RAR; SOU); Sisbik (Ma.; JFM); Tinte Serimpineri (Peru; RAR); Tlilsuchil (Ma.; JFM); Tlilxohitl (Mex.; MAX); Vainiglia (It.; AVP); Vainilla (Bol.; Col.; Cr.; Cuba; Dor.; Ecu.; Mex.; Pan.; Peru; Pr.; Sp.; AKL; AVP; DAG; DLG; RAR; USN); Vanielje (Dutch; EFS); Vaniglia (It.; USN); Vanilenpflanze (Ger.; AVP); Vanilla (Bel.; Eng.; Scn.; AH2; CR2; USN); Vanille (Ger.; St. Lucia; Sur.; AVP; USN); Vanille de Mexique (Guad.; AVP); Vanillier (Fr.; Haiti; AHL; AVP; USN); Vanilya (Tur.; EFS); Vanilz (Swe.; AVP); Viniglia (It.; EFS); Vinigliero (It.; EFS); Wanilla (Arab.; AVP); Wanillia (Pol.; AVP); Zizbic (Ma.; JFM); Zizbickax (Ma.; JFM). (American entries diacritically prepared).

#### Activities:

Allergenic (1; LAF); Antianemic (1; X15180869); Anticancer (1; FNF); Anticariogenic (1; DAD; WOI); Antidote (f; MAX); Antimutagenic (1; X11506799); Antioxidant (1; X10942200); Antiseptic (1; X15186447); Antisickling (1; FNF; X15180869); Antispasmodic (f; DAD; DLZ; JFM); Aphrodisiac (f; CRC; DAD; HHB; JFM; SOU); Bacteristat (1; X15186447); Carminative (f; DAD; EFS); Choloretic (1; CRC; DAD; HHB; RIN); Digestive (f; BOW); Diuretic (f; DLZ; MAX); Emmenagogue (f; DAD; JFM; SOU); Febrifuge (f; DAD; DLZ; JFM); Insecticide (1; X11714297); Insectifuge (1; X11469188); Larvicide (1; X11714297); Mosquitocide (1; X11714297); Piscicide (f; SOU); Stimulant (f1; DAD; JFM); Tonic (f; DLZ); Vesicant (1; WOI); Vulnerary (1; DAD).

#### Indications:

Anemia (1; X15180869); Bites (f; MAX); Cancer (1; FNF; X11506799); *Candida* (1; X14968976); Caries (f1; CRC; DAD; WOI); Childbirth (f; MAX); Cramps (f1; DAD);



DLZ; FNF; JFM); Drepanocytosis (1; X15180869); Dysmenorrhea (f; CRC; DAD; HHB); *Escherichia* (1; X15186447); Fever (f; CRC; DAD; DLZ; JFM); Fungus (1; X14968976); Gas (f; DAD; EFS); Hysteria (f; CRC; DAD; HHB); Impotence (f; CRC; DAD; HHB; JFM; SOU); Infection (1; X15186447); Lactobacillus (1; X15186447); Listeria (1; X14968973); Mycosis (1; X14968976); Obesity (f1; WOI); Polyps (f; JLH); Rhinosis (f; JLH); Sick-Cell (1; FNF; X15180869); Syphilis (f; AHL); VD (f; AHL); Wounds (1; DAD); Yeast (1; X14968976).

### Dosages:

FNFF = !! This is the principal species of vanilla beans, used to flavor baked goods, cakes, candies (e.g., chocolate), desserts, ice creams, liqueurs (e.g., Galliano), puddings, soft drinks, yogurts, etc. Tahitian vanilla is *Vanilla tahitensis*, West Indian vanilla is *V. pompona* (FAC). Mom used to give me a half teaspoon of vanilla extract for upset stomach when she was out of Castoria, which also smelled, to me, of vanilla. I thoroughly enjoyed both, perhaps contributing to my latent love for herbal tinctures (hence my book, *Living Liqueurs*) (JAD).

- Argentinians take powdered pod tincture as antispasmodic, aphrodisiac, and emmenagogue (JFM).
- Bolivians use fruit or root decoction (*V. odorata*) for serious fevers (DLZ).
- Dominicans use the stem decoction to treat syphilis (AHL).
- Haitians take root decoction of “vanille batarde” (*V. inodora*) for syphilis, applying it externally to cancers, chancres, and sores (JFM; JLH).
- Mexicans take 24 drops extract/day in sweetened water as stimulant (cover 4–6 pods with alcohol, steep 21 days) (JFM).
- Venezuelans take pod decoction (2–3 g powdered pod) as febrifuge (JFM).
- Yucatanese steep 8 g dry fruit 8 days in alcohol, taking 5–20 drops 3×/day as aphrodisiac stimulant (JFM).

### Downsides:

Class 1 (AHP, 1997). Not covered (KOM; PHR). The folk emmenagogue activity will no doubt trigger nitpickologists to warn pregnant women against using this spice. And the plant does contain allergenic compounds, as do most plants. As of July 2007, the FDA Poisonous Plant Database listed 11 titles alluding to toxicity of this species.

### Extracts:

Complaining that vanillin was broken down in the stomach, Zhang et al. (2004) praise their new prodrug, as a prodrug, turning to vanillin in the body. At doses as low as 7 mg/kg (ipr mus), the prodrug (MX-1520) prolonged survival time and lowered percentages of sickled cells. It, unlike vanillin itself, was also active orally. The authors say they synthesized the prodrug which converts to vanillin *in vivo* but did not name it (X15180869). In curing the pods, glucovanillic-alcohol and glucovanillin undergo hydrolysis to yield vanillin while a third unidentified glucoside is hydrolyzed to a pleasantly aromatic ester (WOI). Synthetic and biotransformational chemists can make vanillin from aromatic amino acids, ferulic acid, glucovanillic-alcohol, glucovanillin, isoeugenol, lignin, phenolic stilbenes, and vanillic-acid, that might also possibly be converted to vanillin in the stomach. In a two-step biotransformation, *E. coli* XL1-Blue (pSKvaomPcalAmcalB) was used to convert eugenol to ferulic acid, subsequently *E. coli* (pSKeche/Hfcs) was used to convert ferulic acid to vanillin. (X11548997; X14602615).

Vanillic-acid: anticancer, antifatigue, anthelmintic, antiinflammatory, antioxidant (IC21 = 30 ppm), antiradicular (7 × quercetin), antisickling, antitumor-promoter, ascaricide, bactericide (1.5–15 mg/ml), cancer-preventive, choleric, immunosuppressive, laxative, and ubiquit (FNF).

Vanillin: allelochemic (IC<sub>50</sub> = 4.26 mM), allergenic, anticancer, antimutagenic, antioxidant, antipolio, antiradicular (7 × quercetin), antisickling, antitumor-promoter, antiviral, cancer-preventive, flavor FEMA 50–20,000, fungicide, immunosuppressive, insectifuge?, irritant, and perfumery; ADI = 10 mg/kg, LD<sub>50</sub> = 1,580 (orl rat) (FNF).

**ARAROBA (*Vataireopsis araroba* (Aguiar) Ducke) +  
FABACEAE**

**Synonyms:**

*Andira araroba* Aguilar (basionym); fide (USN).

**Common Names:**

Angelim Amarelo (Brazil; USN); Angelim-Amargoso (Brazil; Por.; MPB; USN); Angelim-Araroba (Brazil; Por.; MPB; USN); Angelin (Sp.; EFS); Araroba (Brazil; Ger.; EFS; MPB); Arorobaboom (Dutch; EFS); Bahia Powder Tree (Eng.; EFS); Goa Baum (Ger.; EFS); Goa Powder (Eng.; MPB); Goa Tree (Eng.; EFS); Pó da Bahia (Brazil; Sp.; EFS; MPB).

**Activities:**

Allergenic (1; PH2); Alterative (f; CRC); Antispasmodic (f; EFS); Bitter (f; MPB; PHR); Detergent (f; CRC); Glucose-6-Phosphate-Dehydrogenase-Inhibitor (1; PH2); Irritant (1; PH2); Laxative (f1; MPB); Poison (f; CRC); Taenifuge (f; CRC); Vermifuge (f; CRC).

**Indications:**

Acne (f; GMH); Alopecia (f; CRC; EFS); Arthrosis (f; CRC); Constipation (f1; MPB); Cramps (f; EFS); Dermatitis (f1; CRC; MPB; PHR; PH2); Eczema (f; CRC; GMH); Fungus (f; CRC; PH2); Hemorrhoids (f; GMH); Herpes (f; CRC); Mastosis (f; GMH); Mycosis (f; PHR; PH2); Pityriasis (f; CRC); Psoriasis (f; CRC); Rheumatism (f; CRC); Ringworm (f; CRC; GMH); Trichophytosis (1; CRC); Tylosis (f; GMH); Worms (f; CRC; EFS).

**Dosages:**

FNFF = ? One half grain (GMH).

**Downsides:**

Not covered (AHP; APA; KOM). Caution; easily absorbed dermally and potentially nephrotoxic (EFS). Severely irritant to the skin and mucous membranes. As little as 100 mg administered externally can lead to diarrhea, nephritis, and vomiting (PH2). 200 mg internally can induce diarrhea, nausea, and nephrosis. Powder a respiratory irritant; sawdust muco- and oculo-irritant (CRC). As of July 2007, the FDA Poisonous Plant Database listed six titles alluding to toxicity of this species.

**Extracts:**

Inhibits glucose-6-phosphate-dehydrogenization (PHR).

**PARICA (*Virola calophylla* (Spruce) Warb.) +  
MYRISTICACEAE**

**Common Names:**

Chalviande (Col.; Ecu.; Sp.; USN); Cumala Blanca (Peru; Sp.; USN); Parica (CR2); Ucubarana (Brazil; USN).

**Activities:**

Hallucinogen (1; CRC); Narcotic (f; CRC); Toxic (f; CRC).

**Indications:**

Dermatosis (f; DAV); Divination (f; CRC); Dyspepsia (f; DAV); Fungus (f; DAV); Gastrosis (f; DAV); Malaria (f; DAV); Mycosis (f; DAV); Scabies (f; DAV).

**Dosages:**

FNFF = ?

**Downsides:**

Not covered (AHP; KOM; PHR). The intoxicating snuff has led occasionally to death of a shaman (CRC). As of July 2007, the FDA Poisonous Plant Database listed seven titles alluding to toxicity of this species.

**SACRED VIROLA (*Virola elongata* Warb.) +  
MYRISTICACEAE**

**Synonyms:**

*Virola theiodora* Warb.

**Common Names:**

Cumala Blanca; Sacred Virola (Eng.; CR2).

**Activities:**

Antimitotic (1; X17012762); Anticancer (1; X17012762); Candidicide (f; PH2); Hallucinogenic (1; DAV; PH2); Narcotic (1; PH2); Psychomimetic (f; PH2); Psychotropic (1; PH2); Tranquilizer (f1; DAV; X6097773); Vulnerary (f; PH2).

**Indications:**

Aggressiveness (f1; DAV; X6097773); Arthrosis (f; DAV); Cancer (1; X17012762); Cancer, colon (1; X17012762); Candidiasis (f; PH2); Dermatitis (f; PH2); Fungus (f; DAV; PH2); Infection (f; PH2); Mycosis (f; DAV; PH2); Sores (f; PH2); Swelling (f; DAV); Wounds (f; PH2); Yeast (f; PH2).

**Dosages:**

FNFF = ?

**Downsides:**

Not covered (AHP; KOM). As of July 2007, the FDA Poisonous Plant Database listed eight titles alluding to toxicity of this species.

**Extracts:**

Non-alkaloidal extract produced observable change in mice behavior, marked reduction in spontaneous locomotor activity, and reduced aggression, mostly due to bis-tetrahydrofuran lignans, epi-sesartemin, sesartemin, epi-yangambin, and yangambin (X6097773). The analog (*Z*)-3,5,4'-trimethoxystilbene antimitotic on human colon cancer cell line, dose dependently inhibiting tubulin polymerization, more active than resveratrol or (*E*)-3,5,4'-trihydroxystilbene (X17012762).

**PICHIRINA (*Vismia* spp) +  
CLUSIACEAE**



**Notes:**

True Confession. This is a generic account. Everywhere recognizable, but often with several species difficult to distinguish, and rather generic in the general modest but well known recognizable medicinal activities. I've decided to take a generic approach here. Egg (1999) and Duke and Vasquez (1994) entries (as EGG, DAV) relate to Peru (*V. angusta*, *V. ferruginea*, *V. lateriflora*, *V. macrophylla*, *V. minutiflora*, *V. subcuneata*). Almost all are easily recognized weed trees, known generically as "pichirina" and believed to be fungicidal (DAV; EGG). Morton (1977) entries (as JFM) may apply to *V. ferruginea*, *V. guianensis*, or *V. mexicana* and are all called "achiotillo," for their resemblance to *Bixa*. Balick et al. (2000), figuring that what the others have called *V. ferruginea* is misapplied and should be called *V. camparaguey*, give several Belizean names reported below (BNA). The five Brazilian species in Mors et al. (2000) have versions of the word lacre in their common names and are also mostly used in dermatoses (MPB).

**Common Names:**

Achiotillo (Col.; IED; JFM); Achotillo (Ma.; JFM); Bloodwood (Jam.; IED); Caaopia (Ma.; JFM); Caapia (Brazil; JFM; MPB); Café de Monte (Peru; EGG); Camparaguey (Sp.; JFM); Camparaquay (Sp.; JFM); C'ampara-Why (Bel.; BNA); C'an't-Be-Helped (Bel.; BNA); Carate (Col.; IED); Goma Lacre (Ma.; JFM); Guayabón de Montaña (Sp.; JFM); Ka'n-K'arhy (Bel.; BNA); Lacre (Brazil; JFM; MPB); Lengua de Chiva (Ma.; JFM); Lengua de Vaca (Ma.; JFM); Lliumuhe (Bora; EGG); Old William (Bel.; BNA); Onotillo (Ma.; JFM); Palo de Mayo (Ma.; JFM); Palo Sangre (Ma.; JFM); Pau de Lacrea (Brazil; JFM); Pau de Sangre (Brazil; MPB); Pichirina (Peru; EGG); Pichirina Colorado (Peru; EGG); Pichirina Hoja Ancha (Peru; EGG); Pichirina Hoja Grande (Peru; EGG); Pichirina Hoja Menuda (Peru; EGG); Pinta Mozo (Ma.; JFM); Punta de Lanza (Col.; IED; JFM); Ringworm Tree (Bel.; BNA); Roble (Peru; SOU); S'ak-Am-Para-Guáy (Bel.; BNA); Sangre de Perro (Pan.; IED; JFM); Sangrillo (Col.; Pan.; IED; JFM); Sangrito (Col.; Pan.; IED; JFM); Tesuate Colorado (Sp.; JFM); Tuuhe (Bora; EGG); Uruumahye (Bora; Peru; EGG); Wild Annato (Bel.; BNA); Yana Pichirina (Peru; SOU); Yellow Sangre (Bel.; BNA); Yodo (Peru; SOU). (Nscn).

**Activities:**

Antileishmanic (1; X15368649); Antiseptic (f; EGG); Antitrypanosomic (1; X15368649); Cicatrizzant (f; EGG); Cytotoxic (1; X17346903); Depurative (f; JFM); Febrifuge (f; JFM); Fungicide (f; EGG); Piscicide (f; IED).

**Indications:**

Acne (f; EGG); Arthrosis (f; MPB); Cancer (1; X17346903); Constipation (f; JFM); Dermatitis (f; EGG; JFM); Dysuria (f; JFM); Fever (f; JFM); Fungus (f; EGG); Headache (f; JFM); Herpes (f; DAV); Infection (f; EGG); *Leishmania* (1; X15368649); Mycosis (f; EGG); Rheumatism (f; MPB); Ringworm (f; DAV); Sores (f; DAV; SAR); Toothache (f; JFM); *Trypanosoma* (1; X15368649); Vitiligo (f; IED; JFM); Wounds (f; EGG).

**Dosages:**

FNFF = ?

- Brazilians take latex for constipation, dysuria, and fever, applying to dermatoses (JFM; MPB).
- Brazilians use “goma lacre” as food colorant (JFM).
- Colombians use latex as drastic purge (JFM).
- Costa Ricans apply latex to dermatoses and drink leaf tea as depurative (JFM).
- Cuna Indians use latex to darken light patches of skin (IED).
- Guatemalans use latex as mouthwash for toothache, binding leaves around the forehead for headache (JFM).
- Peruvians use latex as antimycotic, antidermatitic, and vulnerary cicatrizant on wounds (EGG).

**Extracts:**

Ethanollic stem bark extract of *V. orientalis* yielded several compounds with antiprotozoal activity against *Trypanosoma brucei rhodesiense*, *T. cruzi*, *Leishmania donovani*, and *Plasmodium falciparum*, and additionally was cytotoxic against human L6 (X15368649). Extract of *V. guianensis* showed cytotoxicity toward NCI-H460, KM-12, SF-268, and RPMI-8226 cancer cell lines (X17346903; 11021642). Methanolic extracts of *V. baccifera*, *V. jefensis*, and *V. macrophylla* yielded several compounds cytotoxic against human breast, CNS, and lung cancer cell lines, namely ferruginin A, ferruginin B, ferruginin C (a new compound), harunganin, vismin, vismione B, deacetylvismione H, and deacetylvismione A (X12828475).

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# W

## FLAG TREE (*Warszewiczia coccinea* (Vahl) Klotzsch) ++

### RUBIACEAE



#### Illustrations:

fig 234 (DAV); fig 317 (IED)

#### Synonyms:

*Macrocneum coccineum* Vahl (basionym); fide (USN).

#### Notes:

Panama Indians use the root as perfume, scented like anise.

#### Common Names:

Bandera Caspi (Peru; Sp.; LOR); Chaconier (USN); Ebecara (Choco; IED); Guna (Darién; IED); Iapavako (Kofan; SAR); Pastora de Montana (Cr.; IED); Puca Lisa (Peru; RAR); Puca Quiro Sisa (Peru; RAR); Puca Sisa (Peru; Sp.; LOR); Quinilla (Peru; RAR); Rafe (Peru; RAR); Rafeiconyo (Huitoto; RAR); Rafeiconyo-Ey (Huitoto; RAR); Xaanpishpaan (Amahuaca; RAR).

#### Activities:

Analgesic (f; SAR); Antiseptic (f; SAR); Aphrodisiac (f; IED); Hemostat (f; IED); Fungicide (f; SAR); Pusanga (f; IED).

#### Indications:

Backache (f; SAR); Bleeding (f; IED); Dermatitis (f; SAR); Epistaxis (f; IED); Fungus (f; SAR); Impotence (f; IED); Infection (f; SAR); Pain (f; SAR).

#### Dosages:

FNFF = ?

- Choco Indians wear the root on their ear as an aphrodisiac perfume or pusanga (IED).
- Natives of La Pedrera used the root decoction topically on backache (SAR).
- Putumayo natives apply powdered roots in oil to dermatoses, possibly fungal (SAR).

**GOLD BUTTON (*Wulffia baccata* (L.) Kuntze) +  
ASTERACEAE**

**Synonyms:**

*Coreopsis baccata* L. f.; *Wulffia stenoglossa* DC.; fide (GMJ).

**Common Names:**

Bareskut (Palikur; GMJ); Bouton d'or (Creole; Guy.; GMJ); Cambara Amarela (Brazil; GMJ; RAR); Chirapa Sacha (Peru; Sp.; LOR; MDD; RAR); Chirapa Shacha (Peru; RAR); Chiripa Sacha (Peru; SOU); Chiripa Shacha (Peru; SOU); Jambo (Brazil; RAR); Jambu (Brazil; RAR); Kunamisili (Wayãpi; GMJ); Manger Lapin (Creole; Guy.; GMJ); Manzanilla Sacha (Peru; Sp.; LOR; MDD); Mayupili (Wayãpi; GMJ); Zerb Careme (Creole; Guy.; GMJ). (Nscn).

**Activities:**

Antidiabetic (f; DAV); Casein Kinase II-Inhibitor (1; X10465536); Febrifuge (f; DAV).

**Indications:**

Diabetes (f; DAV); Fever (f; DAV); Flu (f; DAV; GMJ); Nausea (f; DAV).

**Dosages:**

FNFF = ? Fruits edible (RAR).

**Extracts:**

Two pentacyclic triterpenoids from the leaves exhibit inhibitory effects of casein kinase II (CK-II) dose-dependently (X10465536).

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# X

## SPINY COCKLEBUR (*Xanthium spinosum* L.) + ASTERACEAE

### Illustrations:

fig 47 (MPG)

### Synonyms:

*Acanthoxanthium spinosum* (L.) Fourreau; *Xanthium catharticum* H.B.K.

### Notes:

In my earlier book on *Medicinal Plants of the Bible* I followed the Moldenkes who concluded that the spiny clotbur was the most likely candidate for this biblical thorn (BIB). But Zohary (1982) does not even cover this species in his bible book, though three species of *Xanthium*, including this spiny one, are included in his *Flora of Palestine* (FP3).

Leaves with three spines at base of leaf stalk . . . . . *Xanthium spinosum*

Leaves spineless

Burr more than 2.5 cm, the prickles hairy at the base . . . . . *Xanthium italicum*

Burr less than 2.1 cm, the prickles glandular pubescent. . . . . *Xanthium strumarium*

### Common Names:

Abrojillo (Arg.; MPG); Abrojito (Arg.; MPG); Abrojo (Arg.; Bol.; MPG); Alqo Khichkha (Bol.; Que.; MPG); Amor de Negro (Brazil; MPG); Amor Seco (Bol.; Ecu.; MPG); Anucháphi (Aym.; Bol.; MPG); Atulet (Arg.; MPG); Badhipjan Tariaki (Arab.; Syria; HJP); Bathurst-Bur (Aust.; Eng.; USN); Boetebos (Afrikaans; USN); Cachurrera Menor (Sp.; USN); Cadillos (Sp.; EFS); Carrapicho Bravo (Brazil; MPG); Carrapicho-de-Santa-Helena (Brazil; Por.; USN); Casa Marutsja (Ecu.; MPG); Ceba de Caballo (Arg.; Sp.; Uru.; EFS; MPG); Choquchapi (Bol.; MPG); Chunngil (Ecu.; MPG); Clonqui (Chile; MPG); Dornige Spitzklette (Ger.; EFS; USN); Elpererin (Araucano; Arg.; MPG); Espina de Perro (Bol.; MPG); Espinho de Carneiro (Brazil; MPG); Floraria (Spain; EFS; MPG); Gedoornde Stekelnoot (Dutch; EFS); Gratteron (Fr.; EFS); I Mop (Arg.; MPG); Juan de Alonzo (Bol.; MPG); Kachu Kawell (Arg.; Vilele; MPG); Kokelin (Arg.; Vilele; MPG); Lampourde aux Écrouelles (Fr.; EFS); Lampourde Épineuse (Fr.; USN); Lappolino (It.; EFS); Marucha (Ecu.; MPG); Matagallegos (Sp.; EFS); Pegotes (Sp.; EFS; USN); Pitrak (Tur.; EFS); Prickly Burweed (Aust.; Eng.; USN); Qopajchi (Bol.; Torotooro; MPG); Rat (Araucano; Arg.; MPG); Rat Ratraid (Arg.; Toba; MPG); Spino D'Asino (It.; EFS); Spiny Clotbur (Eng.; EFS); Spiny Cocklebur (Eng.; USN); Thorny Burweed (Eng.; EFS); Thorny Buttonbur (Eng.; EFS); Thorny Cocklebur (Eng.; EFS); Urusumarú (Bol.; Chiriguano; MPG); Xanthio (It.; EFS). (Nscn).

### Activities:

Acaricide (1; MPG); Antifertility (f; VAD); Antiinflammatory (f; VAD); Antileukemic (1; MPG); AntiMDR (1; X9364417); Antiseptic (f1; VAD; WOI); Antispasmodic (f; VAD); Antitumor (1; MPG); Astringent (f; VAD); Bactericide (1; MPG); Cicatrizant (f; VAD); CNS-Depressant (1; MPG); Contraceptive (1; MPG); Depurative (f; HJP); Diaphoretic (f; DAW);





Digestive (f; MPG); Diuretic (f; VAD); Emollient (f; MPG); Febrifuge (f; VAD); Hemostat (f; EFS); Hepatoprotective (f; VAD); Insulin-Sparing (1; MPG); Laxative (f; VAD); Sedative (f; HJP); Sialagogue (f; EFS; VAD); Sudorific (f; VAD); Tonic (f; HJP).

#### Indications:

*Bacillus* (1; MPG; X9364417); Bacteria (1; MPG; X9364417); Bleeding (f; EFS); Blennorrhagia (f; MPG); Boils (f; HJP); Cancer (1; MPG); Colds (f; VAD); Constipation (f; VAD); Cramps (f; VAD); Cystosis (f; VAD); Diarrhea (f; VAD); Dysentery (f; HJP); Dyspepsia (f; HJP); Dysuria (f; MPG); Edema (f; VAD); Epilepsy (f; HJP); Fever (f; VAD); Flu (f; VAD); Gout (f; VAD); Headache (f; MPG); Hepatosis (f; MPG; VAD); High Blood Pressure (f; VAD); Infection (f1; MPG; VAD; WOI; X9364417); Inflammation (f; VAD); Insomnia (f; HJP); *Klebsiella* (1; X9364417); Leukemia (1; MPG); Malaria (f; EFS); MDR (1; X9364417); *Micrococcus* (1; MPG); Nephrosis (f; MPG); Obesity (f; VAD); Oliguria (f; VAD); Pain (f; HJP); Pharyngosis (f; MPG); Pneumonia (1; X9364417); *Pseudomonas* (1; X9364417); Pyelosis (f; VAD); Rabies (f; HJP); Rheumatism (f; HJP); *Salmonella* (1; X9364417); Scrofula (f; EFS); Snake Bite (f; DAW); Sores (f; HJP); Sore Throat (f; MPG); Splenosis (f; MPG); *Staphylococcus* (1; X9364417); Stress (f; HJP); Ulcers (f; HJP); Urethrosis (f; VAD); Urolithiasis (f; VAD); Uterosis (f; MPG); Wounds (f; VAD).

#### Dosages:

FNFF = X. 100 g seed/l water, ½ cup 2–3×/day (MPG); 100 g root/500 ml water, ½ cup 2–3×/day (MPG).

- Argentinians take root as antimalarial, digestive, diuretic, and emollient (MPG).
- Bolivians take the leaf decoction for liver and stomach problems (MPG).
- Canary Islanders use shoots for diarrhea, dysentery, fever, hepatitis, and oliguria (MPG).
- Europeans recommend the plant for rabies (MPG).
- Lebanese reportedly feed children crushed seed to make blood and bones strong (HJP).
- Lebanese suggest a leaf tea for indigestion, a strong decoction for ulcers, internal or external (HJP).
- Lebanese use powdered seed to treat boils (HJP).
- Lebanese use the plant in steam baths to treat colds and rheumatism (HJP).
- Ukrainians use as calmate and sedative, for dysentery, epilepsy, and hydrophobia (HJP).
- Uruguayans use the root as antiseptic, antispasmodic, diuretic, laxative, and use for hepatoses; other parts of the plant are taken in decoction or tea for malaria (MPG).

#### Downsides:

Contraindicated in small children, lactating or pregnant women; possibly depressant and anti-fertility (VAD). As of July 2007, the FDA Poisonous Plant Database listed 25 titles alluding to toxicity of this species.

#### Extracts:

Xanthatin was potent against *S. aureus* species, including MRSA, and *Staphylococcus epidermidis*, *Klebsiella pneumoniae*, *Bacillus cereus*, *Pseudomonas aeruginosa*, and *Salmonella typhi*, but not *Escherichia coli* (X9364417).

## X **COCKLEBUR (*Xanthium strumarium* L.) +** ASTERACEAE

#### Illustrations:

fig 46 (MPG); p 483 (NPM); pl 528A (KAB)

**Synonyms:**

*Xanthium americanum* Walter; *X. canadense* Mill.; *X. cavanillesii* Schouw; *X. chinense* Mill.; *X. commune* Britton; *X. cylindraceum* Millsp. & Sherff; *X. echinatum* Murray; *X. echinellum* Greene & Rydb.; *X. indicum* J. König ex Roxb.; *X. inflexum* Mack. & Bush; *X. italicum* Moretti; *X. longirostrum* Wallr.; *X. macrocarpum* var. *glabratum* DC.; *X. occidentale* Bertol.; *X. orientale* L.; *X. pennsylvanicum* Wallr.; *X. pungens* Wallr.; *X. saccharatum* Wallr.; *X. speciosum* Kearney; *X. strumarium* subsp. *italicum* (Moretti) D. Löve; *X. vulgare* Hill; fide (JTR; MPG; USN).

**Notes:**

Mors et al. (2000) aggregate *X. orientale*, *X. spinosum*, and *X. strumarium*, so (MPB) common names may apply to any or all of the three. Harvard's Lily Perry covers *X. strumarium* but others (e.g., Duke and Ayensu, 1985) have used *X. sibiricum* for the Chinese species. Perry (1980) hints that *X. japonicum* and *X. sibiricum* may be synonymous with *X. strumarium*. *X. sibiricum* Patr. ex Widder is the only species listed by McGuffin et al. (1997) with the standardized common name "xanthium" and another common name "Siberian cocklebur." Thus all McGuffin et al. (2000) data below (as AH2) accrue to *X. sibiricum*, and all Perry (1980) data (as LMP) could apply as well to *X. sibiricum*. I doubt that herbalists distinguish the species anyhow.

**Common Names:**

Abroco (Brazil; MPB); Abrojo Grande (Bol.; DLZ); Adhasisi (India; WOI); Agara (Assam; KAB; WOI); Amor de Negro (Brazil; MPB); Arista (Sanskrit; EFS; KAB); Badake Chorant (Majhi; NPM); Baggiari (Pushtu; KAB); Banokra (Ben.; Hindi; KAB); Bardana (Ma.; Pr.; JFM; JTR); Bardana Menor (Sp.; EFS; KAB); Bhende Kuro (Nepal; NPM); Buah Anjang (Mal.; KAB); Burweed (Eng.; EFS); Buttonbur (Eng.; EFS); Cadillac (Ma.; JFM); California Bur (Aust.; Eng.; USN); Carrapicho-de-Carneiro (Brazil; MPB; USN); Carrapicho-Grande (Brazil; MPB; USN); CGi Nhi (Ic.; KAB); Chanda (Sanskrit; KAB); Chirchiri (Chepang; NPM); Chirru (Pun.; KAB); Chiru (Pun.; WOI); Chosa (Burma; KAB); Chotadhatura (Ben.; KAB); Clotbur (S. Afr.; KAB); Cocklebur (Eng.; MPB; USN); Dagne Kuro (Nepal; NPM); Dumundi (Mar.; KAB); Dutundi (Mar.; WOI); Espinho-de-Carneiro (Brazil; MPB); Gadariun (Guj.; WOI); Gadriyun (Guj.; KAB); Gatico (Dor.; AHL); Ghaghra (Khasi; WOI); Glaiteron (Fr.; KAB); Gokhru (Hindi; WOI); Gokkhrukallan (Sin.; KAB); Grosse Pagoda (Réunion; KAB); Guizazo (Cuba; Ma.; JFM; JTR); Guizazo de Baracoa (Cuba; Ma.; JFM; JTR); Guizazo de Caballo (Cuba; Ma.; JFM; JTR); Guizazo de Mabijabo (Cuba; JTR); Hsi Erh (China; KAB); Jumli Kuro (Nepal; NPM); Kangres (Tharu; NPM); Kankerroos (Afrikaans; Eng.; S. Afr.; USN); Khanghara (Mooshar; NPM); Kuchakuchiye (Tharu; NPM); Küçük Siracaotou (Tur.; EFS); Lamparones (Sp.; EFS); Lampourde Vulgaire (Fr.; EFS); Lampurda (Cuba; JTR); Lanne Tsuru (Jammu; Kas.; WOI); Lappola (It.; EFS); Lappola Minore (It.; KAB); Large Cocklebur (Eng.; S. Afr.; USN); Lokra (Garo; WOI); Marlumutta (Tam.; KAB); Marulama-thangi (Tel.; WOI); Maruloomatham (Tam.; WOI); Maruluummati (Kan.; WOI); Mula Muni (Aym.; Bol.; Que.; DLZ); Ongedoornde Spitzklette (Afrikaans; KAB); Parohanthor (Mikir; WOI); Parsvapu (Tel.; KAB); Petit Glouteron (Fr.; EFS); Scaietele Popii (Rom.; KAB); Sea Burdock (Eng.; EFS); Shankeshvara (Bom.; KAB); Shankhahuili (India; EFS); Sheep Bur (Eng.; NPM); Spitzklette (Ger.; EFS; KAB); Stekelnoot (Dutch; EFS); Taulamuja (Chepang; NPM); Tene (Gurung; NPM); Ts'ang Ehr Tzü (China; EFS); Tsang Yee (Malaya; KAB); Tsur (Kas.; KAB); West Indian Cocklebur (Eng.; JFM). (Nscn).

**Activities:**

Alexiteric (f; KAB); Analgesic (1; X15635170); Anticarcinomic (1; WOI); Antiedemic (1; X15635170); Antihyperglycemic (1; X10821047); Antiinflammatory (1; X15635170); Antimelanomic (1; X12709909); Antisarcinomic (1; MPG); Antiseptic (1; MPG); Antitrypano-

somal (1; X8824739); Antitumor (1; MPG; WOI); Antiulcer (1; X15899562); Astringent (f; JFM); Bactericide (1; MPG); COX-2-Inhibitor (1; X15635170); Cytotoxic (1; X12709909); Demulcent (f; EFS; NPM); Diaphoretic (f; NPM); Diuretic (f; EFS; MPG; NPM); Emollient (f; MPB); Farnesylation-Inhibitor (1; X12709909); Febrifuge (f; MPB); Fungicide (1; WOI); Gastroprotective (1; X15899562); Gram(+)-icide (1; WOI); Hemostat (f; LMP); Hypoglycemic (1; MPB; MPG; X10821047); iNOS-Inhibitor (1; X15635170); MDR-Inhibitor (1; X9364417); Memorigenic (f; KAB); Orexigenic (f; KAB); Peristaltic (1; WOI); Pneumonic (1; X9364417); Refrigerant (f; EFS); Sedative (f; EFS; KAB); Sialagogue (f; EFS); Sudorific (f; EFS); TNF-alpha-Inhibitor (1; X15635170); Tonic (f; EFS; LMP).

### Indications:

Abscesses (f; LMP); Acne (f; JFM); Adenocarcinoma (1; MPG); Allergies (f; LMP); Arthrosis (f; LMP); *Bacillus* (1; MPG; X9364417); Bacteria (1; MPG); Bilioussness (f; KAB); Bites (f; KAB; LMP); Bleeding (f; LMP); Boils (f; KAB); Calculus (f; MPG); Cancer (f1; MPG; NPM; X12709909); Cancer, CNS (1; X12709909); Cancer, colon (1; X12709909); Cancer, lung (1; X12709909); Cancer, ovary (1; X12709909); Chafing (f; NPM); Chickenpox (f; LMP); Childbirth (f; LMP); Cholera (1; MPG); Coughs (f; DLZ); Cystosis (f; MPB); Dermatitis (f; JFM; JTR; WOI); Diabetes (1; MPB; X10821047); Dropsy (f; LMP); Dysentery (f; MPB); Dysuria (f; WOI); Earache (f; LMP); Edema (1; X15635170); Epilepsy (f; KAB); Erysipelas (f; KAB; MPB; WOI); Fungus (f; JFM); Gastrosis (f; LMP); Glossosis (f; WOI); Goiter (f; MPG); Gravel (f; JFM); Headache (f; LMP); Hemicrania (f; KAB); Hepatosis (f; DLZ; MPB; MPG); Herpes (f; KAB; MPG); Infection (1; MPG); Inflammation (1; X15635170); Kidney Stones (f; JFM); *Klebsiella* (1; X9364417); Leprosy (f; LMP); Leukoderma (f; KAB); Malaria (f; KAB; LMP); Melanoma (1; X12709909); Memory (f; KAB); Myalgia (f; LMP); Mycosis (f; JFM); Oliguria (f; DLZ); Ophthalmia (f; LMP); Osteosis (f; NPM); Pain (1; X15635170); *Pseudomonas* (1; X9364417); Rabies (f; WOI); Rheumatism (f; LMP); Rhinosis (f; LMP); Ringworm (f; JFM); *Salmonella* (1; MPG; X9364417); Sarcoma (1; MPG); Scabies (f; LMP); Scrofula (f; MPB; MPG); Smallpox (f; KAB; NPM); Snake Bite (f; KAB); Sores (f; LMP; MPB); *Staphylococcus* (1; MPG; X9364417); Stomatosis (f; WOI); Stones (f; JFM; MPG); Swelling (f1; LMP; NPM; X15635170); Syphilis (f; WOI); Tinnitus (f; LMP); Tumors (1; MPG); Ulcers (1; X15899562); VD (f; WOI); *Vibrio* (1; MPG); *Xanthomonas* (1; MPG).

### Dosages:

FNFF = ! "Cocklebur was cultivated as a leafy vegetable in China. Young floral tops and the two leaves below are boiled in water" as a potherb (Assam). Seed oil "suitable for edible purposes" (WOI).

- Asian Indians apply the bur to ear or earring to treat hemicrania (KAB).
- Ayurvedics view the plant as alexiteric, alterative, anthelmintic, digestive, febrifuge, orexigenic, and tonic, using for anorexia, biliousness, epilepsy, fever, leukoderma, memory, and odontosis (KAB).
- Bolivians use root decoction for hepatosis, the leaf decoction for cough and oliguria (DLZ).
- Burmese use the whole plant as a tonic for cattle, though Australians suggest it may kill cattle (LMP).
- Chinese suggest as antiallergic, antiperiodic, antiparalytic, antirheumatic, antispasmodic, and antistrumous, applying for abscesses, bugbites, chickenpox, dropsy, earache, headache, leprosy, myalgia, myosis, paralysis, rheumatism, rhinosis, and stomach swellings (LMP).
- Cubans once used to stain hair pale red (JTR).
- Cubans use for cancer, goiter, herpes, and scrofula, taking root decoction orally as a diuretic in hepatosis, nephrosis, and renal calculi (MPG).

- Danuwars, Mooshars, and Tharu (Nepal) mixed charred fruit powder with coconut oil for chafing (NPM).
- Indochinese apply roots to abscesses and ulcers, the fruits to eye ailments, malaria, and ringing in the ears (LMP).
- Koreans suggest the plant for colds, rheumatism, scabies, and scrofula (LMP).
- Nepalese suggest root juice as tonic, applying root paste to cancerous swollen bones (NPM).

**Downsides:**

Viewed as toxic to animals; maximum dose of hydroalcoholic root extract tolerated by rats ca. 100 mg/kg (MPG). Carboxyatractyloside poisoning causes multiple organ dysfunction and can be fatal. Coagulation abnormalities, hyponatraemia, marked hypoglycaemia, icterus, and hepatic and renal failure among symptoms. No antidote is available. Supportive therapy recommended (X15949201). As of July 2007, the FDA Poisonous Plant Database listed 127 titles alluding to toxicity of this species.

**Extracts:**

Methanol extracts antiinflammatory and antinociceptive, inhibiting NO, PGE2, TNF-alpha, also iNOS, and COX-2 (X15635170). Epixanthatin derivatives from the leaves inhibited proliferation of tumor cells, i.e., non-small cell lung, ovary, melanoma, CNS, and colon *in vitro*, also inhibiting farnesylation (X12709909). Xanthatin was potent against *S. aureus* species, including MRSA, and *Staphylococcus epidermidis*, *Klebsiella pneumoniae*, *Bacillus cereus*, *Pseudomonas aeruginosa*, and *Salmonella typhi*, but not *Escherichia coli* (X9364417).

## NEW COCOYAM (*Xanthosoma sagittifolium* (L.) Schott) ++

### ARACEAE

**Illustrations:**

fig 235 (DAV)

**Synonyms:**

*Arum sagittifolium* L.; *Caladium sagittifolium* (L.) Vent.; fide (POR; USN).

**Common Names:**

Adão (Brazil; USN); Ape (Eng.; Haw.; POR); Arrowleaf Elephant's Ear (Eng.; POR); Caribes (Haiti; AVP); Chou Caraïbe (Fr.; POR; USN); Costela-de-Adão (Brazil; USN); Diahutia (Dor.; AVP); Elephant Ears (Eng.; Usa.; POR); Green Arrow Elephant Ears (Eng.; POR); Gualuza (Bol.; Sp.; POR); Indian Kale (Eng.; TAN); Kimpool (Malaya; POR); Mafafa (Col.; AVP); Mairino (Peru); Malanga (Cuba; Sp.; AVP; POR; RAR; USN); Malanga Amarilla (Sp.; POR); Malanga Blanca (Cuba; Guad.; Sp.; AVP; POR); Malanga Malangay (Sp.; POR); Malanga Marron (Fr.; POR; USN); Malanga Thiote (Haiti; AVP); Mangara (Por.; RAR); Mangará Mirim (Por.; POR); Mangara Mirin (Brazil; AVP); Mangarás (Brazil; Por.; POR); Mangareto (Brazil; Por.; POR; RAR); Mangarillo (Brazil; AVP); Mangarito (Por.; POR); Mangatero (Brazil; AVP); Maya (Que.; DLZ); New Cocoyam (Eng.; POR; USN); Nyampí (Cr.; AVP); Ocumo (Sp.; Ven.; AVP; POR; USN); Ocumo Cuman (Sp.; Ven.; POR); Oto (Pan.; AVP); Papa Japonesa (Bol.; DLZ); Papa Walusa (Bol.; AVP); Pituka (Que.; DLZ); Qian Nian Yu (Taiwan; POR); Quequesque (Guat.; Nic.; Sp.; AVP; POR); Quiquisque (Sp.; POR); Rascadera (Col.; AVP); Taiazes (Peru; RAR); Taioba (Brazil; Por.; POR); Tania (Eng.; Ger.; POR; USN); Tanier (Car.; Fr.; Sp.; POR; USN); Tannia (Car.; Eng.; POR); Tannier (Fr.; POR); Tanyove (Fr.; Guy.; POR); Taro (Usa.; AVP); Tartago (Col.; AVP); Taya (Guarayo; DLZ); Taye (Fr.; Guiana; AVP; POR; USN); Tayo (Haiti; AVP); Tayo Tyo (Fr.; Wi.; POR); Tayove (Fr.;

Guiana; AVP; POR; USN); Tiquisque (Cr.; Guat.; AVP); Tiquisque Blanco (Cr.; Sp.; POR; USN); Walusa (Aym.; DLZ); Yahutia (Dor.; AVP); Yantia (Peru; SOU); Yautia (Eng.; Pi.; Sp.; Usa.; POR; RAR; USN); Yautía Amarilla (Dor.; Sp.; AVP; POR); Yautia Blanca (Dor.; Pr.; Sp.; AVP; POR; USN); Yautia Braviá (Pr.; Sp.; POR); Yautia Morado (Dor.; AHL); Yautias (Eng.; TAN).

**Activities:**

Analeptic (f; DAW); Antioxidant (1; X15452401; X15929638); Cicatrizant (f; DAW); Fungicide (1; X15619579).

**Indications:**

Burns (f; DAW); Cancer, nose (f; JLH); Dermatosis (f; DLZ); Erysipelas (f; DLZ); Fungus (1; X15619579); Infection (1; X15619579); Polyps (f; JLH); Rhinosis (f; JLH); Sores (f; DAW); Tumors (f; JLH); Wounds (f; DAW).

**Dosages:**

FNFF = !!! Leaves and petioles eaten boiled (TAN); corms eaten cooked (TAN).

**Downsides:**

As of July 2007, the FDA Poisonous Plant Database listed eight titles alluding to toxicity of this species.

**Extracts:**

Roots contain diethylamine, dimethylamine, morpholine, ethylaniline, and proline (~0.80–0.91 µg N/kg) (X9629865).

**BLUE TARO (*Xanthosoma violaceum* Schott) ++**

**ARACEAE**

**Synonyms:**

*Arum nigrum* Vell.; *Xanthosoma ianthinum* C. Koch; *X. nigrum* auct.; fide (POR; USN).

**Common Names:**

Batata-de-Taxola (Por.; POR; USN); Bat Taioba Roxo (Brazil; Por.; POR); Bentool (Java; TAN); Bentul (Java; IHB); Birah Hitam (Malaya; IHB; POR); Black Malanga (Eng.; POR; USN); Blue Ape (Eng.; POR; USN); Blue Taro (Eng.; POR; USN); Cebu Gabi (Tag.; POR); Cocoyam (Eng.; X14558757); Dudkachu (Ben.; POR); Gabing Cebu (Tag.; POR); Inhame Roxo (Brazil; Por.; POR); Kala Kachu (Hindi; POR); Keladi Hitam (Malaya; IHB; POR; TAN); Keladi Kelamino (Malaya; IHB); Kimpool (Malaya; POR); Kimpul (Malaya; Sunda.; IHB; POR); Kradat Dam (Thai; POR); Linjik (Java; IHB); Malanga (Cr.; Cuba; AVP); Malanga Colorada (Sp.; POR); Malanga Lila (Cuba; Sp.; POR); Malanga Morada (Cuba; Sp.; POR); Malanga Noir (Fr.; Haiti; AVP; POR; USN); Malango (Sp.; POR); Mangara Roxo (Brazil; AVP); Mangarito Roxo (Brazil; AVP); Ocumo Morado Culin (Sp.; POR); Oto (Sp.; POR; USN); Primrose Malanga (Eng.; POR; USN); Purple Stem Elephant Ears (Eng.; POR); Quequeste (Sp.; POR); Quesquesque (Guat.; Hon.; Sp.; AVP; POR); Quiquisque (Sp.; POR); Rascadera (Col.; Sp.; AVP; POR); Red Coco (Eng.; Jam.; POR); Taioba (Brazil; AVP); Talas Belitung (Malaya; POR); Taro Violet (Fr.; POR); Tiquisque (Cr.; Guat.; AVP); Tiquisque Morado (Sp.; POR; USN); Vinola (Sp.; POR); *Xanthosoma Violacée* (Fr.; POR); Yautia (Eng.; Pr.; Sp.; AVP; POR; USN); Yautía Guayabera (Sp.; POR); Yautia Guayamera (Pr.; AVP); Yautia Lila (Dor.; Pr.; POR); Yautía Morada (Sp.; POR); Yautia Morado (Dor.; Por.; Pr.; Sp.; AHL; AVP); Yautia Palma (Por.; Pr.; Sp.; AVP; POR); Zi Bing Qian Nian Yu (China; Taiwan; POR).

**Activities:**

Antioxidant (1; X14558757); Antiradicular (1; X14558757); Hemostat (f; EB25:242); Poison (f; DAW); Vermifuge (f; DAW).

**Indications:**

Bleeding (f; EB25:242); Fever (f; IHB); Myalgia (f; IHB); Sprains (f; IHB); Worms (f; DAW).

**Dosages:**

FNFF = !!! Leaves and petioles eaten boiled (TAN). Side tubers cooked or steamed (TAN).  
 • Malaysians wrap the body in the bigger leaves or bathe patient in decoction for fever (IHB).

**Downsides:**

Some varieties may cause itch in the mouth (IHB). As of July 2007, the FDA Poisonous Plant Database listed four titles alluding to toxicity of this species.

**Extracts:**

Leaf extract contains a new flavone C-glycoside, apigenin 6-C-beta-D-glucopyranosyl-8-C-beta-D-apiofuranoside, and well-known flavone C-glycosides, vitexin, isovitexin, isovitexin 4'-O-rhamnopyranoside, apigenin 6-C-[beta-D-glucopyranosyl-(1-->6)-beta-D-glucopyranoside], and apigenin 6,8-diC-beta-D-glucopyranoside, showing significant antioxidant/free-radical scavenging effect as compared to alpha-tocopherol (EC50 = 10.1 µg/ml) (X14558757).

## TALLOWOOD (*Ximenia americana* L.) ++

### OLACACEAE

**Illustrations:**

p 714 (AUS)

**Notes:**

Fruits distributed by birds eating the fleshy mesocarp, also by water as the endocarp contains air spaces, perhaps explaining its coastal cosmotropical (pantropical) distribution (WIA). Shrubs often adjacent to gopher tortoise burrows (AUS).

**Common Names:**

Agara (Gui. Bissau; UPW); Albaricoque (Arg.; AUS); Albarillo (Arg.; AUS; AVP); Albarillo del Campo (Arg.; JTR); Almendro de Costa (Cuba; JTR); Alvarillo (Arg.; AUS); Ambuy (Brazil; Tupi; AUS); American Plum (Eng.; AUS); Ameixa (Brazil; MPB); Amexia Algodão da Bahia (Brazil; AVP); Amexia da Bahia (Brazil; AVP); Ameixa de Espinho (Brazil; MPB); Ameixa do Brasil (Brazil; MPB); Amexia do Brazil (Brazil; AVP); Amexia do Para (Brazil; AVP); Amexiera del Campo (Brazil; JTR); Amexier da Terra (Brazil; JTR); Assukru (Ivo.; UPW); Bédara Laut (Malaya; IHB); Bidara (Molucca; IHB); Bidaro (Celebes; IHB); Biddaro Laut (Malaya; KAB); Blousuurpruim (Dutch; S. Afr.; ZUL); Blue Sour Plum (S. Afr.; AUS; ZUL); Bois Puant (Fwi.; AUS); Cagalera (Bel.; Hon.; BNA); Caimito de Monte (Col.; Taino; AUS; AVP); Cerise de Mer (Haiti; AUS; AVP); Chimillantai (Sri.; KAB); Chiruillantai (Tam.; SKJ); Chocomico (Nic.; JTR); Ciruelillo (Cuba; Dor.; AVP; JTR); Ciruelo Cimarrón (Cuba; AUS; JTR); Citron de Mer (Haiti; AUS); Co Impakã:na (Creek; AUS); Dea:Croc (Haiti; AVP); Eboro Domûa (Ghana; UPW); Elozy Zégué (Gabon; AVP); Espinheiro da Ameixa (Brazil; JTR); Espino Brujo (Col.; AUS; AVP); False Sandalwood (Eng.; DEP; FAC; USN); Fransman Moppe (Sur.; AUS); Hai Tan Mu (China; FAC; USN); Hevmassoli (Guy.; AUS); Hicaco (Dor.; AHL); Hic Ché (Maya; Mex.; AVP); Hog Plum (Bel.; Fla.; Sudan; AUS; AVP); I:cintohã:nî (Mikasuki; Seminole; AUS); Iguana Berry (Jam.; AUS); Ingudi (Hindi; SKJ); Jia Manzanilla

(Cuba; JTR); Kadarangi (Tam.; KAB); Kalto (Arab.; Mali; Nig.; UPW); Kandarakkare (Kan.; KAB); Kondanakkera (Tel.; KAB); Kuk Che (Bel.; Maya; Mex.; AUS; AVP); Lèga (Ivo.; AVP); Lentigel (Sierra Leone; UPW); Ligrito (Ven.; AVP); Liguito (Ven.; AVP); Limoncillo (Col.; Cuba; Dor.; Peru; Pr.; AVP; JTR; SOU); Macaby (Haiti; AVP); Manzana Guayabo (Ven.; AVP); Manzana Guayalo (Ven.; AVP); Manzanilla (Guat.; Hon.; JTR); Mell'au (Tigrinia; KAB); Mellhetta (Tigra; KAB); Membrillo de Monte (Guat.; AUS); Monkey Plum (Pr.; AUS); Mountain Plum (Eng.; Pr.; AUS; USN); Muni (Upper Volta; UPW); Muri Lime (Guy.; AUS); Naggiri (India; SKJ); Nakkarero (Lambadi; KAB); Nanchicacao (Arg.; Mex.; AUS); Ndogué (Sudan; AVP); Ndongué (Sudan; AVP); Ngologne (Sen.; UPW); N'gundu (Congo; AVP); Non-gbè (Ivo.; AVP); N'sakala (Congo; AVP); Olive (Wi.; AVP); Oranger de Montagne (Guad.; AVP); Oranger des Falaises (Guad.; AVP); Pata (Arg.; AUS); Pata del Monte (Arg.; AVP); Penlayhsi (Burma; KAB); Pepenance (Brazil; Cr.; Guat.; Sal.; AUS; AVP; JTR); Pinlaytsí (Burma; DEP); Pomme Rainette (Guad.; AVP); Pommier de Cithère (AUS); Poonish (Mex.; AUS); Prune Bord de Mer (Fwi.; AUS); Prune de Mer (Guad.; AVP); Prune Épice (Fwi.; AUS); Prunier Épineux (Guad.; AVP); Rukam Laut (Malaya; IHB); Saax Seaside Plum (Bah.; Eng.; Trin.; AUS; AVP; FAC); Sea Citron (S. Afr.; KAB); Seaside Plum (Wi.; KAB); Sennet (Gold Coast; KAB); Sonmunoleu (Dahomey; UPW); Sour Plum (Bel.; BNA); Spanish Plum (Bah.; Eng.; AUS; AVP); Spiny Plum (Eng.; UPW); Tábuli (Gui.); Tallow-Nut (Eng.; AUS; USN); Tallow-Plum (Eng.; AUS); Tallowwod (Eng.; FAC); Tallow-wood (Eng.; AUS; USN); Teu Krá (Cr.; AVP); Tigrito (Ven.; AUS); Tocote de Monte (Guat.; AUS); Tsada (Sudan; Niger; AVP; UPW); Tswada (Lesotho; KAB); Umkholotchwana (Zul.; ZUL); Umthunduluka-Omncane (Zul.; ZUL); Unsicaca (Mex.; Zoque; AUS); Úranschro (Tel.; DEP); Wildeprium (Afrikaan; KAB); Wild Lime (Eng.; AVP; UPW); Wild Olive (Eng.; FAC); Wild Plum (Bel.; BNA); Wiri (Arawak; Guy.; Sur.; AUS); X'kukche (Bel.; Maya; Mex.; AVP; BNA); Yana (Cuba; JTR); Yellow Plum (Eng.; AUS); Yellow Sanders (Eng.; AUS); Zarza Limon (Cuba; JTR); Zuur Pruium (S. Afr.; AVP).

### Activities:

Anthelmintic (f; ZUL); Anticancer (f1; X16005923; X16641197); Anti-HIV (1; X11180526); Antimalarial (f1; AUS; X8651373); Antiseptic (1; WIA); Antitumor, colorectal (1; WIA; X16641197); Antiviral (1; WIA; X11180526; ZUL); Astringent (f; EB30:176); Bactericide (f1; AUS; WOI; X15182903); Cathartic (f; WOI); Cicatrizant (f; MPB); Cyanogenic (1; WIA; WOI); Dentifuge (f; IED); Emetic (f; UPW); Febrifuge (f; WOI); Fungicide (1; AUS); Hemostat (f; UPW); Hypotensive (f; ZUL); Insecticide (1; AUS; X10820107); Insectifuge (f; WOI; ZUL); Laxative (f; DAW); Molluscicide (1; AUS; X2626572); Pesticide (1; X10820107); Pulfuge (f; ZUL); Purgative (1; WIA); Ribosome-Inactivator (1; WIA; X16641197); Sterilant (f; ZUL); Vermifuge (f; WOI).

### Indications:

Arthrosis (f; IED); Bacteria (f1; AUS; WOI; X15182903); Bleeding (f; UPW); Colic (f; WIA); Cancer (f1; WIA; X16005923; X16641197); Cancer, colon (1; WIA; X16641197); Cancer, rectum (1; WIA; X16641197); Colds (f; WOI); Colic (f; IHB; WIA); Conjunctivitis (f; ZUL); Constipation (f1; DAW; WIA); Coughs (f; UPW; WOI); Craw-Craw (f; UPW); Dermatitis (f; AHL); Diarrhea (f; IED; ZUL); Dropsy (f; IED; JTR); Fever (f; WOI); Fungus (1; AUS); Gastrosis (f; DAW; JTR); Gingivitis (f; SKJ); Headache (f; WOI; ZUL); Hematochezia (f; UPW); High Blood Pressure (f; ZUL); HIV (1; WIA; X11180526); Impotence (f; UPW); Infection (f1; AUS; IED; WIA; WOI; X15182903); Jaundice (f; SKJ; WOI); Leprosy (f; UPW); Malaria (f1; AUS; X8651373); Metrorrhagia (f; JTR); Mycosis (f; IED); Nausea (f; IED); Pain (f; ZUL); Psychosis (f; UPW); Pyorrhea (f; WOI); Rheumatism (f; IED; JTR); Ringworm (f; IED; ZUL); Schistosomiasis (f; UPW; ZUL); Sleeping Sickness (f; UPW); Stomatitis (f; UPW); Toothache (f; IED; ZUL); Trypanosoma (f; IED); VD (f; IED; ZUL); Viruses (1; WIA; X11180526; ZUL); Worms (f; WOI; ZUL); Wounds (f; JTR; MPB).

**Dosages:**

FNFF = !! Plums edible raw, fermented into beer or pseudo slow gin, pickled or preserved, cooked instead of lemons with fish; flower petals added to soups; leaves cooked as greens (AUS). Kernel, possibly toxic, made into a vegetable butter, used like ghee in India, or as cooking oil, and eaten like filberts (DEP; FAC; IED; WOI).

- Africans use to treat cancer (X16641197).
- Angolans use for anemia, caries, eye, nose and throat problems, scurvy, and smallpox (ZUL).
- Brazilians use bark decoction for excessive menorrhoea and to wash wounds (JTR; MPB).
- Indonesians eat seeds as purgative and reduce roots to a paste used for colic (WIA).
- Ivory Coastals use in the treatment of malaria (X8651373).
- New Caledonians believe the fruit can sterilize a female (ZUL).
- Nigerians use roots in the treatment of sleeping sickness (ZUL).
- Senegalese use for conjunctivitis, rheumatism, and toothache (ZUL).
- Tanzanians use roots for diarrhea and fever (ZUL).
- West Indians use the fruit jelly for dropsy and rheumatism (JTR).

**Downsides:**

Contains HCN (WIA). As of July 2007, the FDA Poisonous Plant Database listed 135 titles alluding to toxicity of this species.

**Extracts:**

A new protein, riproximin, a type II ribosome inactivating protein, shows cytotoxicity in rat models (IC<sub>50</sub> 0.5 pM in MCF7, 1.1 pM in HELA, and 0.6 pM in CC531-lacZ cells), with significant anticancer activity after administration of 100 (perorally) and 10 (i.p.) pmol riproximin/kg (X16641197). Anticancer activity identified in aqueous extracts (X16005923). Stem bark extract exhibited antiviral activity for HIV-1 (X11180526). Ethanolic extract displayed activity against bacteria including strains resistant to antibiotics, e.g., aminoglycosides, penicillin M, macrolides, lincosamide and streptogramin B (X15182903). Seed oil fatty acid analysis shows total unsaturation of 92.42%; containing essential fatty acids arachidonic (0.60%), linoleic (1.34%), linolenic (10.31%) and varying levels of unsaturated higher fatty acids, such as eicosatrienoic (3.39%), erucic (3.46%) and nervonic (1.23%) acids, with oleic acid (72.09%) (X11991081).





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# Y

## YUCCA (*Yucca* spp) ++

### AGAVACEAE

#### Common Names:

Bajonett-Palmlilie (*Yucca schidigera*) (Ger.; USN); Beargrass (*Y. glauca*) (Eng.; USN); Blaugrüne Palmlilie (*Y. glauca*) (Ger.; USN); Blue-Stem Yucca (*Y. guatemalensis*) (Eng.; USN); Giant Yucca (*Y. guatemalensis*) (Eng.; USN); Great Plains Yucca (*Y. glauca*) (Eng.; USN); Izote (*Y. guatemalensis*) (Mex.; Sp.; USN); Mohave Yucca (*Y. schidigera*) (Eng.; USN); Palma Loca (*Y. schidigera*) (Sp.; USN); Palma Pita (*Y. schidigera*) (Sp.; USN); Palmella (*Y. elata*) (Eng.; USN); Riesen-Palmlilie (*Y. guatemalensis*) (Ger.; USN); Seifen-Palmlilie (*Y. elata*) (Ger.; USN); Small Soapweed (*Y. glauca*) (Eng.; USN); Soaptree (*Y. elata*) (Eng.; USN); Soaptree Yucca (*Y. elata*) (Eng.; USN); Soapweed (*Y. elata*; *Y. glauca*) (Eng.; USN); Soapweed Yucca (*Y. elata*) (Eng.; USN); Soapwell (*Y. glauca*) (Eng.; USN); Spanish-Bayonet (*Y. schidigera*) (Eng.; USN); Spanish-Dagger (*Y. schidigera*) (Eng.; USN); Spineless Yucca (*Y. guatemalensis*) (Eng.; USN); Texas-Bayonet (*Y. schidigera*) (Eng.; USN); Trecul's Yucca (*Y. schidigera*) (Eng.; USN); Yucca (*Y. glauca*) (Eng.; USN).

#### Activities:

Antiaggregant (1; X12180499; X15723749); Antiinflammatory (1; CAN; X16571135); Antimelanomic (1; CAN; SKY; X98392); Antioxidant (1; X16571135); Antiproliferant (1; X16580641); Antitumor (1; CAN; PED; X16580641; X98392); Astringent (1; PED); Bactericide (1; PED); Bitter (1; PED); Depurative (f; PED); Fungicide (1; PED); Hemolytic (1; CAN); Starter Material for Steroids.

#### Indications:

Arthrosis (1; CAN; SKY); Bacteria (1; PED); Cancer (1; CAN; PED; SKY; X16580641; X98392); Cancer, skin (1; CAN; PED; SKY; X16580641; X98392); Cholecocystosis (f; PHR); Diabetes (f; CAN); Dysmenorrhea (4,2); Enterosis (1; CAN); Fungus (1; PED); Gastrosis (1; CAN); Headache (1; CAN); Hepatosis (f; PHR); High Blood Pressure (1; CAN); High Cholesterol (1; CAN); High Triglyceridese (1; CAN); Infection (1; PED); Inflammation (1; CAN; X16571135); Melanoma (1; CAN; PED; SKY; X16580641; X98392); Menopause (4,2); Osteoarthritis (1; SKY); Pain (1; CAN); PMS (4,2); Rheumatism (1; PED; SKY); Swelling (1; CAN); Tumors (1; CAN; PED; X16580641; X98392).

#### Dosages:

FNFF = ! Flowers and fruits, sometimes even roots, of several *Yucca* species eaten after processing (FAC). 3 (490 mg) capsules 3×/day (JAD); ¼–½ cup fresh root (PED); 6–12 g dry root (PED); 9 g dry root:45 ml alcohol/45 ml water (PED); ¼ oz root/pint water 3–5×/day (SKY).

#### Downsides:

Class 1 (for 4 spp. of *Yucca*) (AHP). Though large doses of saponins can be hemolytic and problematic, "little is known about the toxicity of yucca saponins" (LRN, March 1994). Overdoses may cause loose stools (SKY). As of July 2007, the FDA Poisonous Plant Database listed one title alluding to toxicity of this species.

**Extracts:**

“Concentrated plant juice has been used topically to soothe painful joints” (CAN). Saponin-containing extracts antiedemic, antiinflammatory, and hemolytic; clinically reported to help reduce symptoms of pain, stiffness, and swelling in 50% of 150 arthritic patients. Onset of relief took days to months. Saponin-containing extracts clinically reduced blood pressure, abnormal triglycerides, and high cholesterol (as always, best with diet and exercise). Extracts also reported to improve circulation and GI function, and relieve headache. “Yucca saponins are regarded to be a safe supplement since they are not thought to be absorbed from the gastrointestinal tract, thereby reducing the dangers of systemic hemolytic activity ... (N)o known problems with the use of yucca during pregnancy and lactation” (CAN). Polysaccharide-containing extract of *Yucca glauca* has antimelanomic activity. Aqueous alcoholic floral extract of *Y. glauca* exhibits significant antitumor activity against B16 melanoma in mice (X98392). Resveratrol and yuccaols express antitumor and antiproliferant properties (X16580641). *Y. schidigera* bark extract (1–25 µg/ml) decreased platelet adhesion and secretion (X15723749). Pretreatment of platelets with resveratrol or other phenolics from *Yucca* (1–25 µg/ml) slightly reduced platelet aggregation; phenolic compounds showed even stronger antiplatelet actions than resveratrol (X12180499).

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# Z

## PRICKLY ASH (*Zanthoxylum rhoifolium* Lam.) + RUTACEAE

### Activities:

Antimalarial (f1; X15849870; X16504432); Antiplasmodial (f1; X15849870; X16504432); Antistaphylococcic (1; X14531032); Bactericide (1; X12709908; X14531032); Gram(+)-icide (1; X12709908; X14531032); Gram(-)-icide (1; X12709908; X14531032).

### Indications:

Bacteria (1; X12709908; X14531032); Infection (1; X12709908; X14531032); Malaria (f1; X15849870; X16504432); *Salmonella* (1; X14531032); *Staphylococcus* (1; X14531032).

### Dosages:

FNFF = ?

- French Guianans use the bark to treat and prevent malaria (X15849870; X16504432).

### Extracts:

Bark extracts have shown antiplasmodial activity against *P. falciparum*, concentrated in the alkaloid fraction, namely avicine, dihydroavicine, dihydronitidine, fagaridine, nitidine, oxyavicine, and oxynitidine, with nitidine being the strongest (IC(50) < 0.27  $\mu$ M) (X16504432). Prepared in its traditional form, the extract was able to inhibit more than 50% of *Plasmodium* parasite growth *in vivo* at ~100 mg/kg (X15849870). Leaf and fruit EOs antibacterial against *Staphylococcus aureus*, *Klebsiella pneumoniae*, and *Salmonella setubal* bacteria; flower EO was inactive (X14531032). The alkaloids 6-acetyldihydronitidine, 6-acetyldihydroavicine, and xanthoxyline, from stem bark extract, were active against Gram-positive and Gram-negative bacteria (X12709908).

**CORN (*Zea mays* L.) +++****POACEAE****Illustrations:**

p 381 (TRA); p 430 (DLZ); p 485 (NPM); pl 55-B (DAG)

**Notes:**

Corn evolved in Mexico before man was there to enjoy and improve it. Pollen dates back ~80,000 years. This Native American herb was not known outside America until 1492. The Native American names for it are many, with a great account of North American names, here much abbreviated (AUS). For South American Indians, Soukup (1970) gives many of the racial generic names of corn and then a full page of varietal names (SOU). Rutter (1990) gives about as many names, often not repeating (RAR). Both mention only that it has edible grains. Neither mentions medicine. Egg (1999) has the aforementioned names aggregated pretty well (EGG). Many of the names may refer to cornsilk, cornhusks, or corncobs, all sometimes used in folk medicine. By contrast Roersch (1994), for Andean Peru, mentions several dozen different indications, often with complex mixes of more than a dozen herbs (ROE). He also goes into classification and nomenclature of the Andean races of corn, noting that he has seen it cultivated as high as 3,900 m above sea level in the Andes (ROE). African names are given (4 pages full; none yet entered here; maybe when I'm heading for Africa) in Burkill (1966), with a few new uses reported there (IHB). Since a single seed can return hundreds of seeds at the end of the season, the doctrine of signatures lead many to think of corn representing fertility. Remember that the plant was only in America pre-Columbus. When they say "corn" in the Bible, it is usually *Triticum*, not *Zea*.

In Afro-Cuban religions, in the Ocha Rule or Santeria, corn is a sacred plant belonging to all the orishas or "saints" (VOD).

**Common Names:**

Aank (Sunwar; NPM); Abachi (Chiriguano; Iguembe; DLZ); Abati (Bol.; Brazil; Chiriguano; Par.; Tupi; AUS); Abatinga (Brazil; Par.; Tupi; AUS); Able (Ga; KAB); Abo (Timucua; AUS); Aburow (Ashanti; Fanti; Twi; KAB); Adakple (Krepi; KAB); Af (Cr.; Guatuso; AUS); Agbado (Dahomey; AVP); Agwe'la (Cherokee; AUS); Ai (Nic.; Rama; AUS); Akple (Awuna; KAB); Am (Ulwa; ULW); Artho (Lan.; KAB); Aspi (Mikasuki; AUS); Assengar (Ber.; BOU); Atce'ki (Ofo; AUS); Atchee (Creek; Muskogee; AUS); Awasi (Car.; Garifuna; Nic.; Sur.; AUS); Aya (Miskito; Nic.; AUS); Bada Irungu (Sin.; KAB); Bajri (Iran; KAB); Bap Ngo (Annam; KAB); Barajuar (Hindi; Pun.; Sin.; KAB); Barba de Milho (Peru; ROE); Beshna (Arab.; BOU); Bhutta

(India; EFS); Blaifo (Krobo; KAB); Blé de Barbarie (Fr.; Guad.; AVP); Blé de Turquie (Fr.; Guad.; Sp.; AHL; AVP; BOU); Blé d'Inde (Fr.; Guad.; AVP); Blicple (Ewe; KAB); Borona (Pi.; Sp.; EFS; KAB); Buta (Bom.; Oriya; KAB); Cabellitos de Elote (Ma.; JFM); Cabello de Choclo (Peru; ROE); Cala Puskulu (Tur.; EB51:195); Carracony (Algonquian; AUS); Cassi (Koasati; AUS); Chamico (Peru; RAR); Chasquen (Delaware; AUS); Chassi (Alabama; AUS); Chawu (Ticuna; EGG; SOU); Chinqui (Campa; RAR; SOU); Cholam (Mal.; KAB); Cholum (Sri.; KAB); Chop (Amuesha; Peru; Yanesha; EGG; RAR); Chroop (Amuesha; Yanesha; EGG; SOU); Chullpo (Peru; RAR); Corn (Eng.; Scn.; AH2; USA); Djabbar (Arab.; BOU); Djagoeng (Ma.; JFM); Dra (Arab.; BOU); Dourar (Arab.; AVP); Draia (Arab.; BOU); Dra Shami (Arab.; BOU); Durah Shami (Arab.; EFS); Durajkizan (Arab.; KAB); Dura Shamiyah (Arab.; BOU); Elote (Ma.; JFM); Formentona (It.; AVP); Formentone (It.; AVP); Gafouli Masri (Arab.; BOU); Goinjol (Kan.; KAB); Gorajonra (Mun.; KAB); Grano Siciliana (It.; AVP); Grano Turco (It.; AVP); Granturco (It.; EFS); Ha'ba (Osage; AUS); Ha'hka (Tunica; AUS); Hdawa (Arab.; BOU); Hortania Safra (Arab.; BOU); Huiso Shegui (Peru; Shipibo/Conibo; RAR); Ik (Bribri; Cabecara; Cr.; AUS); Indian Corn (Eng.; BOU); Ip (Cr.; Terraba; AUS); Ixim (Bel.; Maya; Mex.; AUS); Jagong (Malaya; Sunda; IHB); Jagung (Java; IHB); Janar (Ben.; KAB); Jaolari (Afg.; KAB); Jaori (Afg.; KAB); Jiao Bai (Pin.; DAA); Jilote (Ma.; JFM); Jonar (India; KAB); Jondra (Naguri; KAB); Jonra (Hasada; KAB); Junala (Gahrwal; KAB); Junri (Nwp.; KAB); Kaddab el Dura (Arab.; BOU); Kamh Irrum (Malta; KAB); Kanachung (Lepcha; NPM); Kandaja (Sanskrit; KAB); Kani (Newari; NPM); Kao P t (Thai; IHB); Kao S l (Thai; IHB); Katsabazaha (Madagascar; KAB); Katsabotso (Hova; KAB); Keteria (Tunisia; AVP); Khôshahe Makki (Iran; EFS); Khot (Laos; KAB); Koren (Ma.; JFM); Kukumura (Rus.; KAB); Ku La (Mex.; Tarahumara; AUS); Ku Mi Now (Mex.; Tarahumara; AUS); Kush (Catawba; AUS); Ku Tow (Mex.; Tarahumara; AUS); Lio Su (China; EFS); Lua Mgo (Ic.; KAB); Maeo (Kon.; KAB); Mahta'min (Plains Cree; Ojiba; AUS); Maïs (Cuba; Dutch; Fr.; Ger.; It.; Sp.; AHL; AVP; BOU; RyM); Maïs (Fr.; Haiti; AVP); Maïs Vert (Fr.; AHL); Maiz (Cr.; Cuba; Dor.; Ecu.; Por.; Pr.; Ven.; AVP); Maiz Dulce (Cuba; AVP); Maize (Eng.; Ocn.; AH2; BOU); Maíz Tonqo (Aym.; Bol.; DLZ); Majs (Den.; Swe.; EFS); Maka (Mar.; KAB); Makai (Bhojpuri; Chepang; Danuwar; Gurung; Majhi; Mooshar; Nepal; Tamang; Tharu; Toba; Urdu; KAB; NPM); Makaina (Magar; NPM); Maki (Limbu; NPM); Makka (India; EFS); Makkajari (Dec.; KAB); Makkari (Guj.; KAB); Makkasholam (Tam.; KAB); Makkazonnal (Tel.; KAB); Malolo (Ma.; JFM); Mandamîn (Potawatomi; AUS); Manojjo de Maiz (Ven.; AVP); Marishi (Arawak; Sur.; AUS); Marisi (Ma.; JFM); Masara (Hausa; KAB); Massara (Sudan; AVP); Mata de Elote (Ma.; JFM); Matashati (Peru; Shipibo/Conibo; RAR); Mayi (Creole; Haiti; AVP; TRA; VOD); Melica (It.; EFS); Mielie (Afrikaan; KAB); Miglio (It.; AVP); Milho (Por.; AVP); Milho Roxo (Por.; AVP); Mischa (Peru; RAR; SOU); Misir (Tur.; EB49:406; EB54:155; EFS); Misir Puskulu (Tur.; EB49:406); Mopj (Hon.; Jicaque; AUS); Mstoura (Arab.; BOU); Mukka (Raj.; KAB); Mukni (Kum.; KAB); Muti (Peru; SOU); Nahuo (Ma.; JFM); Necoum (Atakapa; AUS); Onèhha (Onondaga; AUS); Osapa (Choctaw; AUS); Ossox (Chiquitano; DLZ); Pagatowr (Algonquian; AUS); Palu (China; EFS); Panizo (Sp.; AVP); Panshin Segui (Peru; Shipibo/Conibo; RAR); Parhuay (Peru; RAR); Paut (Cam.; KAB); Pe (Choco; Pan.; AUS; IED); Pelo de Choclo (Peru; ROE); Pelo Maiz (Ma.; JFM); Poketawes (Powhatan; AUS); Poone (Sotho; KAB); Popusoui (Moldavia; KAB); Porumb (Rom.; KAB); Pyaungbu (Burma; KAB); Qamh el Hind (Arab.; AVP); Qawleh (Arab.; BOU); Qbala (Arab.; BOU); Qttania (Arab.; BOU); Qwaleh (Arab.; BOU); Roum (Arab.; BOU); Ru+kra (Brunka; Cr.; AUS); Ruki (Bol.; Chacobo; DLZ); Sara (Peru; Que.; AUS; RAR); Sara Chukcha (Peru; ROE); Sara Muru (Que.; RAR); Selu (Cherokee; AUS); Sepotu (Moxo; DLZ); Sha (Aguaruna; SOU); Sha'ar el Dra (Arab.; BOU); Shawashi el Dura (Arab.; BOU); Shegui (Peru; Shipibo/Conibo; RAR); Shinki (Peru; SOU); Shinqui (Ashaninka; RAR); Shurrabet el Dura (Arab.; BOU); Soporó (Chane; DLZ); Tanchia (Choctaw; AUS); Tapa (Culina; RAR); Taratia el Dura (Arab.; BOU); Tawmey (Shawnee; AUS); Tlaoli (Ma.; JFM); Tonco (Aym.;

RAR); Trigo de Indias (Peru; Sp.; AVP; SOU); Turkey Wheat (Eng.; BOU); Turkia (Arab.; BOU); Türkischer Corn (Ger.; EFS); Türkischer Maïs (Ger.; AVP); Türkischer Maïs Weissen (Ger.; AVP); Turkish Corn (Eng.; EFS); Turkse Rarwe (Dutch; EFS); Tuùpevu (Hopi; AUS); Tziri (Ma.; JFM); Tzucnal (Ma.; JFM); Uchukulu (Peru; ROE); Umm Ghfara (Arab.; BOU); Utilo (Bol.; Callawaya; Peru; DLZ; ROE); Wagmisa (Lakota; AUS); Wahaba (Omaha/Ponca; AUS); Wawati (Cocama; SOU); Welschkankaern (Dutch; JLH); Xaqui (Amahuaca; RAR); Xëqui (Cashibo; SOU); Xofiïro (Ocaina; SOU); Yakotana (Arawak; Sur.; AUS); Yavanala (Sanskrit; EFS); Yek' (Biloxi; AUS); Yobabacha (Rai; NPM); Yovato (Candoshi; SOU); Yu Kao Ling (China; EFS); Yu Mi Xu (China; Pin.; AH2); Yu Shu Shu (China; EFS); Zaburro (Brazil; KAB).

### Activities:

Analgesic (f12; EFS; TRA); Antiaggregant (1; X15665587); Antiatheromic (1; VAD); Anticancer (1; JAF51:3313; JAF51:6683); Antidecubitic (1; FNF); Antidiabetic (1; X12840166); AntiEBV (1; JAF51:6683); Antiedemic (f12; FAD; JAF51:6683; TRA); Antigenotoxic (1; X16250249); Antihypertensive (f; VOD); Antiinflammatory (f1; APA; JAF51:6683); Antilactagogue (f; JFM); Antimutagenic (1; X16250249); Antioxidant (1; X12628411); Antiperoxidant (1; X12628411); Antitumor-Promoter (1; JAF51:6683); Antiviral (1; JAF51:6683); Aphrodisiac (f; JFM); Cardiogenic (f; PHR; PH2); Cell Proliferant (1; FAD); Choleric (f1; PNC; ROE); Cholinergic? (1; CAN); Diuretic (f1; APA; BOU; CAN; FAD; PH2; X15957371); Emmenagogue (f; JFM); Emollient (f1; UPW); Gastro-sedative (1; PH2); Hemostat (f; EGG; JFM); Hepatoprotective (1; X12025784); Hypertensive (f; PHR; PH2); Hypocholesterolemic (1; TRA; VAD); Hypoglycemic (1; FAD; VAD); Hypolipemic (1; VAD); Hypotensive (1; FAD); Hypouricemic (f; X15957371); Immunostimulant (1; TRA); iNOS-genic (1; X15665587); Insecticide (1; X12852635); Kaliuretic (1; X15957371); Litholytic (f; CAN; EB49:406; EFS); Sedative (f; EGG); Stimulant (f; EFS); Stomachic (f; EFS); Uricosuric (f; X15957371); Uterocontractant (1; CAN); Uterotonic (1; ROE; TRA); Vulnerary (f1; AUS; FAD).

### Indications:

Abscesses (f; ROE); Alopecia (f; DAV); Angina (f; KAB); Arteriosclerosis (1; FAD; VAD); Ascites (1; MAB); Asthma (f; UPW); Bladder Stones (f; APA); Bleeding (f; EGG; JFM); Bleeding (f; DAA); Calculus (f; DLZ; JFM); Callus (f; JLH); Cancer (f1; JAF51:6683; JLF); Cancer, breast (f; JLH); Cancer, colon (1; JAF51:3313); Cardiopathy (f1; AHL; MAB); Catarrh (f; ROE); Chafing (f; UPW); Childbirth (f; ROE); Cholecystitis (f; FAD); Congestion (f; AUS); Convulsions (f; ROE); Coughs (f; EB51:195; ROE); Cystitis (f1; APA; BOU; CAN; EGG; VAD); Dandruff (f; ROE); Dermatitis (f; JFM; UPW); Diabetes (1; X12840166); Diarrhea (f; JFM); Dropsy (f; APA; IHB); Dysentery (f; JFM); Dysmenorrhea (f; JFM); Dyspepsia (f; PH2); Dysuria (f1; JFM; MAB; PHR; ROE); EBV (1; JAF51:6683); Eczema (f; UPW; VAD); Edema (f12; FAD; JAF51:6683; JFM; TRA); Enuresis (f1; CAN; MAB); Fever (f; AUS); Flu (f; JFM; ROE); Fungus (f; EGG); Gastritis (f; ROE); Gonorrhea (f1; APA; FAD); Gout (f1; AHL; APA; DLZ; FAD; VAD; X15957371); Hematuria (f; ROE); Hemorrhoids (f; EB49:406); Hepatitis (f1; AHL; FAD; JFM; PH2; ROE; X12025784); High Blood Pressure (f; VOD); High Cholesterol (1; TRA; VAD); Hyperazotemia (1; VAD); Hyperuricemia (1; VAD); Ichthyosis (f; VAD); Impotence (f; JFM; UPW); Infection (f; JFM; ULW); Infertility (f; UPW); Inflammation (f1; APA; JAF51:6683); Jaundice (f; ROE); Kidney Stones (f; EB49:406); Leukorrhea (f; ROE); Malaria (f; KAB); Measles (f; AUS); Mucositis (f; VAD); Mycosis (f; EGG); Nephrosis (f12; AHL; CAN; TOM; TRA; VOD); Obesity (1; VAD; X12840166); Oliguria (f1; MAB; VAD); Osteomyelitis (1; UPW); Pain (f12; TOM; TRA); Periodontitis (1; VAD); PMS (1; APA); Prostatitis (1; AHL; CAN); Psoriasis (f; VAD); Pulmonitis (f; JFM); Pyelonephritis (1; VAD); Pyorrhea (1; VAD); Rheumatism (f; APA; FAD); Sciatica (f; DLZ); Sinusitis (f; ROE); Smallpox (f; ROE); Sores (f; JFM); Sore Throat (f; ROE); Soroche (f; ROE); Stomachache (f; ROE); Stones (f1; EB49:406; MAB); Swelling (f1; JFM; TRA; VOD); Syndrome X

(1; X12840166); Tumors (f; JFM); Urethrosis (f1; BOU; CAN; PNC; VAD); Uterosis (f; ROE); UTIs (1; APA; CAN; PH2); Vaginosis (f; VAD); VD (f; FAD; JFM); Viruses (1; JAF51:6683); Warts (f; JLH); Weaning (f; JFM); Wounds (f1; EGG; VOD).

### Dosages:

FNFF = !!! Grain widely eaten. For many ways of preparing see Austin (2004) (AUS; EB54:155; FAC; TAN). 4–8 g silk, as tea, 3×/day (CAN); 2 tsp cornsilk/cup tea every other day (PH2); 1 tsp silk/cup water up to several ×/day (WIC); 2–8 ml liquid cornsilk extract (PNC); 4–8 ml liquid extract; 5–15 ml tincture (1:5 in 25% alcohol) 3×/day (CAN); 2–3 tsp tincture/day (20 g cornsilk:100 ml 20% ethanol, steep 5 days) (PH2); 8–15 ml syrup (CAN).

- Andean Peruvians burn dry corn ears, inhaling smoke and ashes for flu and sinusitis (ROE).
- Andeans use an eyedropperful of decoction of corn, *Spartium*, and *Equisetum* for soroché (ROE).
- Argentinians, wishing to wean a baby and stop milk flow, take 2 cups (a.m. or p.m.) of sweetened cornsilk decoction (10 g silk:0.5 liter, 10 min) (JFM).
- Ayurvedics consider the grain as an appetizer, useful for biliousness (KAB).
- Bolivians drink water in which cornmeal has soaked for diarrhea and dysentery (DLZ).
- Bolivians use cornsilk tea for biliary calculus, cystitis, gout, nephritis, and sciatica (DLZ).
- Cambodians use the seed for angina, the silks in malaria (KAB).
- Cherokee use corn silk tea for kidney stones (AUS).
- Costa Ricans use cornsilk decoction for cystosis and hepatitis (JFM).
- Haitians apply ground corn as a cataplasm on fractures (TRA; VOD).
- Haitians take cornsilk tea as antiedemic, antiinflammatory, and as a diuretic for kidney problems (TRA; VOD).
- Haitians use split corn ear tea to prevent high blood pressure (VOD).
- Panhandle Floridians smoked cornsilk for sore throat (AUS).
- Peruvians apply the seed decoction to warts (JLH), cornmeal to mycoses (EGG).
- Rappahannock (and Washingtonians) apply corn to corns (JLH).
- Senegalese grill and powder the cob (or ear) and take for impotence and infertility (UPW).
- Surinamese roast a half ear over open fire, put it in a jug with rusty spike, filling it with brandy; this they drink 3×/day as aphrodisiac (JFM).
- Trinidadans roast kernel tea for diarrhea, dysentery, and flu (JFM).
- Turkish eat red seeds for hemorrhoids (EB49:406).
- Turkish use the silk decoction to pass kidney stones (EB49:406).
- Venezuelans apply parboiled corn dough to tumors (JLH), consider the cornsilk emmenagogue, and take raw grain decoction for chest ailments, gonorrhoea, and urinary burning (JFM).
- Yucatanese boil 10–15 g silk/l water, sweeten, and drink for bladder stones, cardiopathic edema, cystitis, and kidney (JFM).
- Yunani consider the grain anodyne, useful for hemorrhoids (KAB).

### Downsides:

Class 1 (AHP). “No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages” (PH2). Newall, Anderson, and Phillipson (1996) report dermatosis and allergenic reaction. Because of its uterine stimulant effect, *in vivo*, its use in pregnancy and lactation is to be avoided (CAN). Because of its diuretic activity, it could lead to hypokalemia (CAN). As of July 2007, the FDA Poisonous Plant Database listed 116 titles alluding to toxicity of this species.



Many corn silk samples are contaminated with *Bacillus cereus*; many with levels higher than 10(3) spores/g, highest in corn silk samples (>10(7) spores/g). Corn silk samples were also contaminated (levels above 10(6) cfu/g) with *Fusarium* spp., *Penicillium* spp., *Aspergillus flavus*, and *A. niger*). The mean level of *Cryptococcus laurentii* contamination in corn silk was greater than 10(4) cfu/g (X11545215). It was demonstrated that fumonisins, mycotoxins produced by *Fusarium moniliforme* and possibly a natural cause of equine leukoencephalomalacia, porcine pulmonary edema, and human esophageal cancer, in several teas (cornsilk, black tea, chamomile, orange, and linden leaves); samples of corn silk and chamomile had less contamination, 50–150 and 20–70 µg/kg, respectively (X11510675).

#### Extracts:

Allantoin may explain cell-proliferant and vulnerary activity (FAD). Peirce (1999) questions the diuretic activity. Antiedemic sterol-ferulates, sterols, and 5-Alk(en)enylresorcinols in the seed oil inhibit EBV-activation and tumor-promotion (JAF51:6683). Tsuda et al. (2003) gave mice high-fat diets augmented with an anthocyanin-pigmented extract from purple corn, the mice maintained normal weights. Control mice on the same diet but without the extract became obese and developed excessive blood levels of sugar and insulin. This tells me that purple corn might be a food pharmacy alternative for the white corn, preventing to a degree, trivial or significant, what they call Syndrome X, or Metabolic Syndrome. Brazilian studies showed that an aqueous cornsilk extract (folklorically uricosuric) is diuretic at a dose of 500 mg/kg body weight and kaliuretic at doses of 350–500 mg/kg body wt in mice (X15957371).

### JUA (*Ziziphus joazeiro* Mart.) +

#### RHAMNACEAE

#### Synonyms:

*Ziziphus gardneri* Reiss.; *Ziziphus guaranitica* Malme

#### Common Names:

Joa (Brazil; POR); Joazeiro (Brazil; POR); Jua (Eng.; USN); Jua de Caatinga (Por.; POR); Jua Fruta (Brazil; POR); Juá Espinho (Brazil; POR); Juazeiro (Brazil; POR); Jujubier du Brésil (Fr.; POR); Laranjeira de Vaqueiro (Brazil; POR); Raspa de Jua (Por.; POR).

#### Activities:

Candidicide (X17234376); Fungicide (1; X17234376).

#### Indications:

*Candida* (1; X17234376); Fungus (1; X17234376); Infection (1; X17234376).

#### Dosages:

FNFF = ! Fruits of this, like several other *Ziziphus* species, are eaten (FAC).

#### Downsides:

As of July 2007, the FDA Poisonous Plant Database listed two titles alluding to toxicity of this species.

#### Extracts:

In comparison to amphotericin B, the plant extract exhibited fungicidal activity against *Candida albicans*, *C. guilliermondii*, *Cryptococcus neoformans*, *Fonsecaea pedrosoi*, and *Trichophyton rubrum*. Best extract activity was at 6.5 µg/ml against *Candida guilliermondii* and *Trichophyton rubrum* (X17234376).

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*Agave americana*



*Anacardium occidentale* fruits



*Annona muricata* fruit



*Annona squamosa* fruit



*Avicennia germinans*



*Banisteriopsis caapi*



*Bellucia* fruits



*Bixa orellana* flower



*Bixa orellana* pods



*Brosimum* sp.



*Brunfelsia grandiflora* fruits



*Caesalpinia pulcherrima* flowers



*Calliandra angustifolia* flowers



*Cecropia peltata*



*Couroupita guianensis* flower



*Euphorbia cotinifolia*



*Euterpe precatória*



*Ficus insipida*



*Gossypium barbadense*



*Grias neuberthii*



*Gustavia* sp.



*Hevea brasiliensis* seed



*Hura crepitans*



*Ipomoea quamoclit*



*Jatropha gossypifolia*



*Malachra alceifolia* flower



*Minquartia guianensis*



*Myrciaria dubia*



*Opuntia ficus-indica*



*Pachira aquatica*



*Persea americana*



*Phyllanthus* sp.



*Rollinia mucosa*



*Schinus molle* fruit and flower



*Scoparia dulcis*



*Senna reticulata*



*Solanum mammosum*



*Solanum obliquum*





*Swietenia mahogani*



*Tabebuia* sp.



*Tynnanthus panurensis*



*Vismia* sp.



*Warszewiczia coccinea* foliage

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