

Why "At-Risk"?

by Richo Cech

The air hung as limp as weeping willows over a muddy creek. Kentucky can be like that, the oxygen dense, rising from the blue-green hardwood forest, the daylight slow and full like a southern drawl. Called out by the lure of seed collecting, I stood at the edge of a fallow, overgrown field bordered by rank elder and poke, my plastic bucket in hand. I could already distinguish the dried tops of boneset and blue vervain among the grasses, draped over in places by the limp leaves of passion flower promising green, wrinkled fruits that would pop underfoot once I waded in. The twin pods of dogbane were snarled at knee level, and

the whole array was lorded over by the billowing heads of gravel root, in island-like patches and more abundant at the lower, presumably damper margins of the field. The early summer grasses would have been made into h a y, disallowing the later development of this diverse array of interesting medicinal weeds except for the foresight of my friend Charles, who decided to let it go unharvested in anticipation of my coming. When

he told me how he'd saved the field for me, I *p*. looked him in the eyes and said, "Charles that's about the nicest thing anybody ever did for me." Now feeling a bit sheepish that I had so little time to make use of such a large gift, I nonetheless made ready to collect what I could.

Before I harvest seeds, I like to rest my mind and have a little one-sided conversation with the plants, which usually goes something like, "Greetings plants. I love you! I have come to spread your seeds here in this place, and to take them away for myself and for other people to grow for plant medicine. Thanks for this. I will take care of you...."

This time, as I began to quiet my mind I felt a thrill up my spine and cocked my head to the side to listen. As if conducted into chorus by the tentative chirrup of a single cricket, the plants began to sing to me in high, ecstatic voices. A slow, inexorable smile interrupted the all right, now in full force, the boneset and the blue vervain, the passion flower and the gravel root, even the baying voice of the dogbane joining in. The words of the song came to me freely. "Glee!" They sang. "Glee, glee, glee! We are happy here in this place. We were not cut for hay. Now we can spread our seeds. This would not have happened except for you! Glee, glee, glee!" My smile accompanied me as I broke from this beautiful reverie and began to shake the seed heads into the bucket, and has remained as an inner

path of sweat that worked its way from under my hat

band down into my tee shirt. The plants were singing

smile ever since. I know that all beings are looking for happiness, the plants included. I remain convinced that when we assist plants to survive and prosper, they willingly and consciously reciprocate by giving us their bodies, their oxygen and their medicine so that we can live well on this earth.

Poised here at the beginning of the 21st century, herbalists are challenged to serve the burgeoning human population while at the same

time the wild plant populations, the main source of our traditional materia-medica, diminish at an alarming rate. Farnsworth and Soejarto reported that we are currently losing around one plant species per day. They suggest that by the year 2000 we will have already "driven to extinction medicinal plants worth \$40 billion annually in the United States alone."

There are many similarities among the 20 plants that comprise the at-risk list. Most come from very distinct habitats, environments that are under siege by development, grazing and/or logging. In fact, native plant habitat in the United States is disappearing at the alarming rate of over 2,400 acres daily. The at-risk plants have been traditionally utilized in medicine, with substantial historical or current trade that has led

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This is the season of change. Already here in the northern climes the leaves are touched with gold and the first cold breezes blow in from the north. Last night, as if in early tease, reports of first frosts had us clambering about with stained sheets and old blankets transforming the front yard into a clothes line of colorful fabric. My bedroom once again is a jungle as the cold-sensitive plants move in to join me for the long months ahead. It is a season of change. A passing, of letting go.

As many of you may have already heard, our dear friend and fellow herbalist Gail Ulrich recently passed away. Diagnosed in early May with an aggressive form of liver cancer, she spent the last months at her home surrounded by family and loving friends. Always an example of joy and vibrancy, she was even more so an example of courage and determination in her last months of life. She died peacefully at home on July 23 surrounded by those she loved most. She will be missed greatly in this circle of green friends. Gail was an unrelenting advocate for the plants, a supporter of United Plant Savers since its founding in 1994, president of the NorthEast Herb Association and Founder of Blazing Star Herb School. Gail taught at the UpS Botanical Sanctuary in Ohio and at several other UpS events and was a well known teacher and author.

Death brings to those of us still on this journey an ever deepening awareness of the gifts of life and those who are closest to our heart bring us many gifts in their passing. Gail touched so many people's hearts with her grace and radiance, and she'll continue to live on in the hundreds of people whose hearts she touched through her kindness.

The day following my last visit with Gail, I left for a week camping trip to Nova Scotia. Seeing how frail Gail was, I felt time was of the essence and made plans to come visit her again the day after I returned. Just a couple of days into the trip, camping in the wild green of Nova Scotia, Gail came to me in a vivid dream. She was almost fully recovered, had gained back most of her weight, and was looking radiant. We were in a small group of her friends. She was trying on beautiful dresses asking us if this one looked right for her journey. And, of course, we were all telling her how gorgeous she was. I awoke, knowing she had passed on, comforted by the fact that even in her passing she was thoughtful and kind enough to leave tracings of her footsteps so we'd know she was traveling in the light. Many others told of similar stories.

I spent the next few days walking closely with death, thinking about it, Gail, life, friendship and the journey that awaits us all. It was a quiet peaceful time, the moment I needed, and allowed me come to peace with the missing of one so dear to me. One day on Nova Scotia's Evangeline Trail I came across a large grove of American Elms. I had been noticing the elm trees growing still quite abundantly throughout the peninsula and was surprised and excited to see them, but noticed, also, they had a peculiarity about them. Growing up the trunks and spreading to every branch were what appeared to be hundreds of new leaves, vine like from a distance. I thought it might have to do with ice damage and decided to investigate. Walking into the old elm grove, I was taken by the nobleness of these tall handsome trees and the stillness that emanated from them. I could see that what at a distance had appeared oddly beautiful, was in fact the deadly Elm disease. It had spread its cancerous canker sores up the entire length of the trees and no matter how healthy, how young, or how old the tree, it didn't have the defenses to fight this 'new' disease. Yet, they continued to grow, quietly, peacefully, proudly, putting forth new leaves even as they were dying. There could be no more powerful teaching offered to me at the time and it helped me come to grips with the insidious effects of cancer and how random it seems in its selection.

A few weeks before Gail was diagnosed with cancer, she had asked me \sim had asked several times, in fact \sim to send her a poem I had read to her months earlier.

" For years I never knew whether the twilight was the ending of the day or the beginning of the night. And then suddenly one day I understood that this

did not matter at all. For time is but a circle and there can be no beginning and no ending. And this is how I came to know that birth and death are one.

And it is neither the coming or going that is of consequence. What is of consequence is the beauty that one gathers in this interlude called life"

~ W.O.Abbott

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The UpS Newsletter is the voice of our members and other concerned individuals interested in the conservation and cultivation of native North American medicinal plants. We encourage people to send us their opinions and thoughts for submission to the newsletter. Though many of the articles presented express opposing and/or controversial viewpoints we make an effort to print as many of these articles as space allows in an attempt to present the many views of this subject. It is important when reading the newsletter to remember that the articles are the opinions/experiences solely of the authors and do not necessarily represent the view and / or mission of UpS. They are presented herein for discussion and review and as part of an educational process. We invite your comments. P

Greetings from UpS cont.....

There are few people I know who walked the beauty way more than Gail did. May her journey be in beauty, beauty before her, beauty behind, beauty above and below. Beauty all around. May she know beauty always in her heart and continue to spread beauty on her journey into the spirit world.

In the spirit of the green, Rosemary Gladstar P

Here in the Wild Fields By Gail Ulrich, 7-30-80

Here in this wild field devic spirits surround me. The very being and essence of sunflowers, Black eyed Susan, Wild bergamot and Blazing Star

> Sooth me Here

In this quiet Kingdom, The sweet cacophony of birds And drone of bees I am at peace My medicine is here I need no doctors, no shamans, I am bathed in color and sound Violet heals my spirit Golden yellow heals my mind Sun and earth glorify these devas I need no shaman My medicine is here In this wilderness Is my medicine

> *Box Tree Fairy* Fairy illustrations by Cicely Mary Barker

UpS MISSION STATEMENT

United Plant Savers' mission is to conserve and restore native medicinal plants of the United States and Canada and their native habitats while ensuring an abundant renewable supply of medicinal plants for

Voices from the Green

Dear Editor,

As a pharmacist, I am aware of an IUCN published list of endangered medicinal plants. Protecting and ensuring sustainable cultivation of these natural plants is becoming my professional commitment. Hopefully through mutual cooperation, sustainability will one day be a reality. Through your help, we will prevent the natural plants' reserve from being depleted by careless greed and ignorance. Sincerely Yours, Julia Yu

Dear UpS,

This past fall, I initiated a Native Plant Sanctuary Project on Rappahannock County Public School property. With approval form the school board, we will establish native plants on school property. The intention is to inspire and educate the greater community through work and research at the schools. We want to involve as many community groups as possible with this project ~ the extension office, scouts, garden clubs, etc. Headwaters, which is our public education foundation, awarded us a \$200 mini-grant to get started this spring and a young man working on his Eagle Scout project will be helping me map the property and work on other "foundation" necessities. How exciting! Thanks for being there, doing what you do. We've only just begun and Mother Earth smiles! Lorinda Bosch

Dear United Plant Savers,

I have been a member in spirit since your inception as my teacher, David Winston urged us to support UpS several years ago. Now it is time I become an official member. I have moved to an area of our nation where wild plants abound but also an area that needs the philosophy of UpS. As I build my practice and begin to teach, I wish to share the need to protect that which is the foundation of our love and work, the Green Nation. So, I gladly send in \$35 to become a member and to let you know that I will be offering the wisdom of UpS to all that cross my path.

As a new volunteer for the Wintergreen Nature Foundation, whose goal is to encourage understanding, appreciation and conservation of the natural resources of the Blue Ridge Mts. of central Virginia, I will be learning of the indigenous plants of this area and what is at risk. It seems that the Foundation can greatly benefit from the resources that UpS offers. I look forward to a continuing relationship with you.

Annie Briddell, Nellysford, VA

Dear UpS,

This poem is real. I weep when I recite it. Sometimes I just hope and pray that coming generations here in West Virginia (and other states as well) will stop selling their souls and resources to old man money and realize the riches they throw away. Big Mr. Timber and his brother Mr. Coal have mislead generation through generation. We are trying to end it, little by little. People will open their eyes to a new way of life, which is actually only a rebirthing of the God Head Plan to live symbiotically. All things effect all things.

Mark English

I walked into the woods to see But gone they were...the trees Was it me? *I* sat and pondered there for hours Reached out to touch and smell a flower A withered stem and there it lay Someone dug up its roots today I held it there so still and limp The tears formed as for a friend For twenty feet around All that grew in fertile ground Lay upon the land dead While in my head All hope was dying I saw the aged and sickly lying Along with all that grew Some took a thousand years or two The earth and I have shared a breath My head hangs low, what shall I do But go and plant a seed or two

Dear UpS,

Thank you so much for sending UpS Bro ch u res and newsletter issues for the meeting of the National Acupuncture and Oriental Alliance in San Francisco. Your literature disappeared at a steady clip from our trade show table and was completely gone by the third morning. Medicinal plant conservation and sustainable cultivation have become hot topics among this group of practitioners, and the response to our table and presentations was truly gratifying. The current rate of expansion of earth consciousness is almost overwhelming to those of us who offer concrete suggestions, and I'm sure you're feeling it too.

Jean Giblette, Director High Falls Gardens, Philmont, NY

Dear Ki-ta-ni-gha,

I received a copy of your letter through the email and wanted to personally thank you for taking the time to voice your feelings. As an active member of United Plant Savers, I wanted to respond to your comments and concerns. I, too, live in Vermont, teach herbalism and lead herb walks here from my home at Sage Mountain. I'm definitely a flatlander and will never qualify for 'Vermont status', but I do love living here and try to walk gently on this part of Earth Mother. I agree fully with your letter and the points you made, but feel I need to respond to your remarks about feeling attacked by UpS kinds of individuals. We state many times in our literature that habitat destruction is the primary cause of loss of plant resources and that wildcrafting, especially practiced in the manner of earth sensitive individuals such as yourself, is the least of the causes. However, we do advocate the organic cultivation of native medicinal plants, in part, to lessen the demand for wildcrafted sources and to steer the ever increasing demand to sustainable cultivation. It doesn't matter if you and I harvest ethically from the wild. So long as the demand is out there, there will be others harvesting with profit as their prime motive.

We purposely haven't called and don't intend to call for a moratorium on the use of wildcrafted plants because of situations such as yours and because we feel that the answer rests in education and public awareness, not a moratorium. However, we've gotten letters from individuals 'on the other side' of the issue who feel that we have 'sold out' (I'm not sure who to) because we don't call for a moratorium on wildcrafting. The issue is sensitive; we are just beginning to understand the complexities of it and the serious nature of the problems. UpS's part in it? Our main effort is towards education and raising public awareness. We have been active in educating the herbal consumer to

APRIL 1ST IS THE DEADLINE FOR THE UPS SPRING 2001 NEWLETTER

This newsletter is the collective voice of United Plant Savers and is the main vehicle of communication between members. We'd love to hear from you. In fact, we **need** to hear from you. Please send us your articles, comments and thoughts. Articles should be no more than three pages and should focus on issues pertaining to : ecological herbalism, replanting projects, news briefs on "at risk" medicinal plants, articles on companies & individuals who have started replanting projects, action alert issues concerning medicinal plants, book reviews, and other articles pertaining to "at risk" American medicinal plants. If possible, please submit your articles either through email: <u>info@www.plantsavers</u> or on disk. make responsible choices, have worked endlessly with the herbal industry getting them to be a part of the solution, not the problem and are beginning to work with the drug companies moving into the herbal market place. We're involved in organic cultivation research projects to help small farmers develop sustainability with native medicinal crops. And we're hopeful that each of us who love and work with herbs become actively involved in finding solutions. Together, I'm convinced, we can make a difference.

> In the spirit of the plants, Rosemary Gladstar

Green Thanks and Gratitude To:

Thomas J. Elpel of HOPS Press who donated \$1 from every copy sold of "Botany in a Day" to United Plant Savers. First quarter sales generated \$401 to UpS! Thank you Thomas for the generous donation and a terrific book (see pg22).

Thanks to the American Herbalists Guild who voted to donate 5% of the proceeds from the sale of their Educational Directory to UpS. The directory will be for sale for one year and they anticipate contributions to grow steadily.

Christine Dietsche of Soul Tonic, a home-based a romatherapy company in Bloomington, MN, donated 2% of sales to United Plant Savers.

Thanks again to Joel Dufour of Earth Tools who continues to donate a percentage of the proceeds from sales of his BCS Tractors to UpS. Joel offers a discount to UpS members and can be contacted at 600 Mt. Vernon Ridge, Frankfort, KY 40601

Mothernature.com is helping promote UpS by including membership brochures in 20,000 outgoing orders

Naomi B. Stephenson Memorial Jennifer Ernst and Elaine Eastwood of Bowling Green, KY sent a memorial check in memory of Naomi B. Stephenson. "Our friend's mother was a true naturalist and spent years disseminating information about the uses and preservation of wild flowers and medicinal plants. Her 300-acre farm, located next to Carter Caves State Park, remains a haven for plants and wildlife. We have chosen your organization as the ideal place to contribute funds, in the hope that the efforts of people such as Naomi will continue."

American Herbalists Guild: the AHG Council recently voted to donate 5% of the proceeds of sales of their Educational Directory. Thank you AHG!

My teacher, the late Evelyn Snook, gifted me with valuable hands-on plant identification, gathering techniques, and medicine making. She showed me special places to gather herbs. One of these places was a large goldenseal patch which I hadn't visited for many years ~ until I heard that the construction of a new highway would obliterate it. A client, whose daughter, Lisa, happened to be working on her Master's degree in conservation and propagation of native medicinal plants, mentioned that she had been surveying the goldenseal patch to observe the ecological processes associated with goldenseal habitat. Upon visiting the patch together, we were devastated to discover how far the clear-cutting had progressed. The patch was in grave danger.

We contacted people in the community to help with transplanting and were able to keep ahead of the loggers, digging and transplanting as much as we could get to.

In the meantime, we enlisted our friend Rick, who had special 'phone skills', to contact people to see if we could stop, or at least slow down, the destruction until the plants were removed. Rick immediately contacted the Pennsylvania Department of Environmental Protection to inquire about the status of Goldenseal in our state. Goldenseal, as it turned out, is not on the protected species list, but was considered vulnerable and, as

such, a license is required for wild- crafters to harvest it. The Pennsylvania Department of Conservation and Natural Resources (DCNR) monitors the level of harvesting. Goldenseal is exported from Pennsylvania at a rate of about 2,000 pounds a year. The DCNR was also the agency responsible for evaluating habitat along the construction site of the new I-99. It was explained that public hearings had already been scheduled during the planning phase to allow citizens to comment on the proposed roadway. The path of the roadway was, in fact, rerouted as a result of these hearings. Many local landowners opposed the original route, including one gentlemen who turned out, interestingly enough, to own the land where the goldenseal was located. The proposed route would have split a farm he owned in the valley in half.

It was suggested we contact this landowner, Don Spackman, to talk about the possibility of his having any

interest in conserving the goldenseal and its habitat. Though he was unaware goldenseal grew on his property, Dick was interested in the plant and expressed gratitude that someone was trying to save it by transplanting it to other areas. He called back the next day and asked if we could walk the land together to see if there might be a safe area where some of the plants could be relocated.

The next day he showed up in his pick-up truck with his seven-year-old granddaughter, Abbie. As we drove down the rugged logging road, I apologized for trespassing and removing the plants in an effort to relocate them. He chimed in gracefully to tell me that he considered himself to be a steward of the land and added, hadn't I noticed there weren't any "No Trespassing" signs? His land was for all to enjoy as long as no one abused this privilege. He explained that the

> highway placement had caused the government to landlock 20 acres, so that he painfully had decided to clear-cut that acreage to invest in more land elsewhere.

> As we ambled around the area where the forest was most damaged, we found several small patches of goldenseal leading to the grand patch. Don asked us to teach Abbie what Goldenseal looked like so that she would remember these plants in the future. We had had walked some

distance and already come across several nice patches when the owner stopped and looked me intensely in the eyes, "Do you mean to say that you are asking me not to cut over any of this Goldenseal and give up a good income? Is that what you want?"

Preserving Hawaiian "Awa" Varieties

by Ed Johnston

Kava (or 'awa in Hawaiin), is a tropical shrub, a member of the pepper family, and is found throughout the Pacific Islands. The traditional beverage made from the pulverized root produces a mild and legal narcotic effect used for enhancing both ceremonial and social occasions.

In Hawai'i, ceremonial and social use of 'awa persisted well into this century, but eventually became all but unknown as traditional Island practices were replaced by modern ways. Even as Native Hawaiian use of 'awa waned, however, Western enchantment with the plant grew. In the 1800's German botanists introduced 'awa into their pharmacopoeia, and its popularity grew to the extent that, in 1893, 17,000 pounds of dried root was exported from Hawai'i to be sold in Europe as a treatment for bladder infections, menstrual problems and nervous disorders.

Western interest in the plant has again surged in recent years. In Europe and the U.S. 'awa is frequently prescribed to treat anxiety, stress and mild depression, as well as for its moodelevating and muscle-relaxing properties.

The Association for Hawaiian 'Awa (AHA) was founded in 1998 in response to this surge of interest and to help set standards for farming and marketing of Kava with respect for the plant as a cultural treasure.

Over the thousands of years of indigenous cultivation of 'awa, cultivars unique to Hawai'i were selected and preserved. Studies indicate that the Polynesian voyagers brought only one or two cultivars with them. Over the centuries, through cultivation and selection, the Hawaiian farmer produced at least 13 distinct varieties with specific uses and purposes, which we now know reflect their kavalactone combinations. The Hawaiians understood this over 1,000 years ago.

Kava spread throughout the Pacific with the help of sea-going islanders who took various varieties with them in their voyaging canoes and carefully cultivated them in each new home they reached. Since domesticated 'awa, a sterile mutation of the wild plant, cannot be propagated without the help of humans, "this means that in a real sense the plants that still grow in remote places in Hawai'i were planted by our ancestors," says Hawaiian cultural historian, Kepa Maly. "Our native varieties of 'awa are cultural artifacts." According to Ed Johnston, founder of the AHA, there are compelling reasons to get the word out on Hawaiian 'awa. The old 'awa plantings, he says, left for so long uncultivated in remote corners of the islands, are now being uprooted by 'awa "thieves." Even plants that are severely chopped back, but not dug out, are exposed to danger. It leaves the roots susceptible to diseases which could well finish the plant off. Unfortunately it is not uncommon to revisit an old

'awa stand to find it has been almost completely chopped up. Hawai'i has fourteen or fifteen known varieties of 'awa, though it is possible other varieties still grow undiscovered in remote valleys. These varieties have all been cultivated with cuttings from the remnants of ancient plantings.

These old plantings are Hawaiian artifacts. The varieties themselves were developed by Hawaiians to suit their preferences and medicinal needs, and they were deliberately planted by Hawaiians on the forest sites. "Awa is propagated by cuttings and changes by somatic mutation – occasionally a stalk within a plant would have a different appearance from the rest. When the stalk was propagated and grown out, note would be taken of the quality of the drinking experience. Medicinal uses would be tried. If it was found to be good, the new variety would be retained and

propagated. Each precious Hawaiian 'awa variety is an important achievement of Native Hawaiian horticulture.

Not only was each 'awa in the forest developed by the Hawaiians to suit their uses, but it was, in all probability, placed on its site by Hawaiians and should be left on site as a living monument. From the late 18th century, native Hawaiians were devastated by disease and political upheaval, and many monuments were callously destroyed by foreigners. Hawai'i's 'awa plants should be accorded the respect denied to so many other treasures of the Hawaiian people.

When you want to take a few cuttings, make sure it's permitted by the property owner. Fertilize the site and replant. Clean away the other weeds. Don't purchase cuttings if you don't know how the seller came by them. And, if you know someone planning to pull up old plants, try to talk them out of it.

Continued on page 8

Bloodroot ~ Who Rescued Whom?

By Nancy Scarzello

The tree-lined dirt road that I live on winds its way through a small valley running along side Shepherd Brook and ends at the National Forest. It is a popular road for walkers and I use this two-three miles for my exercise every spring through fall. Along this route are common roadside plants as well as some rare species, making this an herbalist's cornucopia of weeds, trees and other treasures. One small area in particular always caught my attention each spring when I could see the bloodroot blooming near the side of the road. Each year I would rescue one or two plants that had crept into the ditch where the town would be cleaning in the summer. I had noticed a "For Sale" sign on the property last fall and had made a mental note to find out who the owner was and ask if I could rescue

the plants before any construction began. This spring, however, I found myself too busy to take time for myself and gradually my personal wellness had somehow fallen to the bottom of my many lists. I didn't begin my walking routine and I had missed the blooming of the bloodroot.

Early summer came and I was feeling stressed and stretched

to my limit. I made an appointment for a physical and the results were as I had suspected ~ lack of exercise and stress had resulted in high blood pressure. Determined to bring it back under control, I began my walking routine that afternoon. I was feeling less stressed already, just taking some action, and I also realized how much I had missed my walk and familiar plant friends along the way. As I came to the place of the bloodroot my heart sank ~ I saw a house half built on the property and a new driveway roughed in where the bloodroot once stood! I was devastated at the loss and felt entirely guilty that I had not taken the time to notice that this was about to happen and rescue the



Bloodroot, photo by Deb Soule

bloodroot.

Berating myself for this neglect and apologizing to the plants I made my way up the new drive to see if there was any hope. I crept down close to the edge of the drive where the earth had been peeled back by the dozer. I was completely awed by what lay before me ~ several bloodroot were dangling over the edge where the dozer had swept them, the spring had been very wet so their exposed roots had not dried out and upon my gentle touch they practically leaped into my hands! I walked the rest of the way home with half a dozen bloodroot wrapped in ferns to plant in the woods behind our home. The next day I went back, scooped about a half dozen more. This time there were seed pods beginning to open and although I handled them

> very gingerly, the pods continued to open the rest of the walk home. As soon as I reached home I let the pods spring their seeds into a little dish. Not knowing the best way to plant the seeds I consulted my library and learned that close monitoring of the plants is necessary because when the seeds are ready, they just drop one day. I was there that day, the day the seeds would have

dropped into the new driveway. I was able to rescue twelve bloodroot plants and plant over 200 bloodroot seeds back into the wild where they would be safe to grow and flourish.

Bloodroot taught me a very valuable personal lesson that day. When I had not taken the time to take care of myself, I was not there for the plants either. The very day that I took charge of paying attention to my health and taking care of myself I was able to pay attention and take care in rescuing the plants and seeds of bloodroot. Thank you bloodroot, you have helped treat my high blood pressure, and in an unexpected



Preserving Hawaiian Kava Varieties cont.....

Cultivars from this ancient parent stock are free from the plant disease plaguing 'awa crops elsewhere in the Pacific. If we can protect this resource, we can develop a great small-scale farming industry here in Hawai'i, and we can be a source of healthy plants for other Pacific Islanders. To protect this gift from the ancients, the AHA is working with the state Department of Land and Natural Resources to designate old forest plantings as historic sites.

AHA is a non-member, 501-C-3 non-profit organization that fosters research, education and preservation of the cultural and medicinal values associated with the 'awa plant. They are supported by donations and are willing to provide whatever information they can to people who inquire about 'awa.

Thank You for Your Generous Contributions & Support

We'd like to extend a special thank you to all of the members of United Plant Savers. Your support, effort and concern are what really make a difference in the protection and conservation of our important medicinal plant species. As eloquently stated by Margaret Mead, "*Never doubt that a small group of thoughtful, committed citizens can change the world: it is the only thing that ever has.*"

We wish to gratefully thank the following folks for their financial contributions

Green Angels ~ \$50,000 + Judy and Michael Funk Paul Strauss

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Meg Koeppen, Crones Cradle Conserve, Susan Clearwater, Dale Edson, Marli Rabinowotz, Mary Murphy, Hummingbird Haven Herb Farm, Simpler's Botanicals, Herbs for Kids, Rozanne Jacobs, Cindy Black, Wind River Herbs, Terry Rader, Naturade Inc., Mary & Russ Jorgensen, Alonso Wade, Michael Zink, Mother Earth Foods, Marilyn Stoughton, Sheila Smith, Deirdre O'Connor, Sara Altshul O'Donnell, Cherie Ingraham, Michele LaBlonde, Marianna Tupper, Katherine Cox, Starwest Botanicals, Kathy Withersopoon, Carol Inman, Patience & Rod Harvey, Aviva Jill Romm, Joan D'Argo, Robert O'Mara, Rochael Donovan, Jill Wagner, Sheila Frantz, Austin Herb Society, Boise Co-op, Laura Vaccari, Bluebonnet Nutrition Corp., Deborah Ives-Hallperin, Lady Barbara Hall, Craig Antilla, Carmen Biddle, Kathy Megan Smith, Deborah Ann Light, Nancy Handwerger, James Calloway, Vikki Ratliff, Dan Schuster, Nature's Apothecary, Lynda Sadler, Western Herb, Dr. Mark Percival, Martha Smith, Susan Anne Bates, Judy Smith, Emily Cohen, Trinity Herb, Carole Pittlemam, Country Health, Bini Reilly, Bonnie Woods, Beth Songer, Dan & Candice Pratt, Kara & Gus Buchanan, Robert Baxter, Martin Schnase, Alyn Eickholts, Peggy Fogg, Food for Thought, Franz & Joanne Weber, Maureen Ericson, Elizabeth Winston, David Kirkham, Jerry Walde, Moonrise Herbs, HT Mead Foundation, Joe Viny, Diane Faircloth, Tracey Cornogg, Marlene Dailey, Earth Balance, Jane Hammerstrom

Help Request for Greg & Mary Tilford

The fires in the west this summer cost a huge loss of property for hundreds of people. Herbalists Greg and Mary Tilford are among those whose home and possessions went up in flames. They escaped with their lives and their animals. They're feeling pretty desolate right now, so a little help from their friends would help.

There are many people needing help, but Greg and Mary are our herbal brothers and sisters, and to get them back on their feet as soon as possible is good for everyone. To lose all your belongings and your business as well is a tough one. They are hoping they will be able to rebuild on their land next year.

There has been an amazing outpouring of warmth and concern for their welfare. Donations of books to help rebuild their library (that was one of their big losses), or financial contributions to help rebuild their lives would be greatly appreciated. Other items people could send include: tincture equipment, tinctures for Mary's practice, directories, office supplies, a baby tree to plant on their land next spring....imagination can run wild here. Lots of well wishes to keep their spirits up and encouragement going.

Send donations to: Greg & Mary Tilford, 721 N. 5th Street, Hamilton, MT 59840

UpS "At Risk" Forum

STATEMENT OF PURPOSE

For the benefit of the plant communities, wild animals, harvesters, farmers, consumers, manufacturers, retailers and practitioners, we offer this list of wild medicinal plants which we feel are currently most sensitive to the impact of human activities. Our intent is to assure the increasing abundance of the medicinal plants which are presently in decline due to expanding popularity and shrinking habitat and range. UpS is not asking for a moratorium on the use of these herbs. Rather, we are initiating programs designed to preserve these important wild medicinal plants.

Readers are invited to contribute their observations on the distribution and health of our Native American medicinal plants.

Please send comments to: UpS "At Risk" c/o Horizon Herbs, Box 69, Williams, OR 97544 email: Herbseed@chatlink.com.

~At Risk List~

American Ginseng (Panax quinquefolius) Black Cohosh (Cimicifuga racemosa) Bloodroot (Sanguinaria canadensis) Blue Cohosh (Caulophyllum thalictroides) Echinacea (Echinacea spp.) Eyebright (Euphrasia spp) Goldenseal (Hydrastis canadensis) Helonias Root (Chamaelirium luteum) Kava Kava (*Piper methysticum*) (Hawaii only) Lady's Slipper Orchid (Cypripedium spp.) Lomatium (Lomatium dissectum) Osha (Ligusticum porteri, L. spp.)) Peyote (Lophophora williamsii) Slippery Elm (Ulmus rubra) Sundew (Drosera spp.) Trillium, Beth Root (Trillium spp.) True Unicorn (Aletris farinosa) Venus' Fly Trap (Dionaea muscipula) Virginina Snakeroot (Aristolochia serpentaria) Wild Yam (Dioscorea villosa, D. spp.)

Autumn is a second spring when every leaf is a flower. ~Albert Camus

To Watch List Arnica (Arnica spp.) Butterfly Weed (Asclepias tuberosa) Cascara Sagrada (Rhamus purshimia) Chaparro (Casatela emoryi) Elephant Tree (Bursera microphylla)) Gentian (*Gentiana spp.*) Goldthread (Coptis spp.) Lobelia (Lobelia spp.) Maidenhair Fern (Adiantum pendatum) Mayapple (*Podophyllum peltatum*) Oregon Grape (Mahonia spp.) Partridge Berry (Mitchella repens) Pink Root (Spigelia marilaandica) Pipsissewa (*Chimaphila umbellata*) Spikenard (Aralia racemosa, A. californica) Stone Root (Collinsonia canadensis) Stream Orchid (Epipactis gigantea) Turkey Corn (*Dicentra canadensis*) White Sage (Salvia apiana) Wild Indigo (Baptisia tinctoria) Yerba Mansa (Anemopsis californica) Yerba Santa (Eriodictyon californica)

GREENLines

from GREEN, a project of Defenders of Wildlife designed to serve grassroots wildlife and wildlands advocates. 1101 14th Street, NW, Suite 1400, Washington, DC 20005

HERBAL MEDICINE IMPERILS WILD PLANTS

The growing use of herbal medicines because of "population growth and the rapid expansion of the Western market" is "threatening the survival" of endangered wild plants says Reuters 4/13. With trade in 14 plant species already restricted, CITES delegates are considering trade restrictions on 6 more.

OZARK NATIONAL FOREST GINSENG HARVEST MORATORIUM

The Arkansas *Democrat Gazette* reported on 5/20/00 that the Ozark National Forest has banned ginseng harvesting for five years "because its numbers have drastically shrunk" and the Forest Service hopes the closure will keep the plant from becoming endangered.



At Risk...Continued from page 1

to over harvest in many cases, thereby challenging their sustainability in these wild environs. These plants are harvested mainly for their non-renewable portions, either the entire plant or the roots, so that the harvest of the medicine usually spells the end of that individual. For the most part the roots of at-risk plants are quite small and therefore it requires the harvest of many individuals to fill a given harvest quota. These are mainly long-lived, perennial plants that may not quickly or reliably reproduce in the wild once the adult seed-bearing individuals are harvested. They are challenging to cultivate. In many cases, the cultivation methodologies have not been well established because these plants require very specific germination and growth conditions, or because they are difficult to start from seed and when started from seed may require many years to develop to harvestable size. Therefore, perpetual harvesting pressure continues to bear on wild populations, as these wild plants are the cheapest or in some instances the only source of raw material for the manufacture of herbal products.

An annual or biennial plant that reproduces readily from seed is generally sustainable even in the face of wholesale harvest. There is usually an intact seed-bank in the soil that produces ample regrowth the next year, and seeds may even lie dormant in the soil for decades until the right germination conditions are encountered. However, the harvest of a long-lived perennial plant has much greater impact, because it can take many years for the plant to be replaced in nature. Older, seed-bearing individuals are the repositories for the genetic and regenerative potential of the population. Robyn Klein has done excellent work on compiling the age ranges of some of the plants on the at-risk list, reporting that American ginseng (Panax quinquefolium) can live for 50 to 60 years, Echinacea angustifolia 17-44 years, helonias root (Chamaelirium luteum) 30-80 years, trillium (Trillium ovatum) 72 years and yellow lady's slipper orchid (Cypripedium calceolus) 30-100 years. It gives one pause to consider that the plant being harvested for medicine may actually be older than the human it is destined to treat.

The historically dwindling supply of wild ginseng, goldenseal and Venus' fly trap has resulted in their regulation in appendix 11 of the Convention for International Trade in Endangered Species of Wild Fauna and Flora (CITES). Without further conservation and cultivation we are likely to see others of the at-risk herbs listed by CITES in the near future, with black cohosh and osha already under consideration. Although CITES listing tends to slow exportation of the herb (although only in the raw form), it has no power to limit domestic trade. We can only hope that these tighter regulations on trade will be augmented by more proactive efforts by government, industry, non-profit and educational institutions. Monitoring wild populations, educating the public about the source of the herbs used to make their medicines and researching appropriate cultivation methodologies would more successfully protect these wild resources.

The tides of consumer demand strongly impact the sustainability of our wild medicinal plant populations. For instance black cohosh has recently registered increased consumer demand resulting in "the largest gain for any single herb... rising 477% from the first eight months of 1999 compared to the same period in 1998: \$586,469 to \$3,385,393." Even though the cultivation of black cohosh is relatively rapid and easy, American growers have not yet taken advantage of the rising demand for this herb. Cultivation efforts remain in the fledgling stage, and the vast majority of black cohosh used in manufacturing is therefore taken directly from the American forests.

The story really starts in the eastern hardwood forest biome, where Native Americans first introduced the settlers to ginseng, black cohosh, bloodroot, blue cohosh, goldenseal, helonias root, lady's slipper orchid, trillium, virginia snakeroot and wild yam. The ongoing utilization and sometimes exploitation of these plants is a matter of history, resulting eventually in their listing on the UpS at-risk list. Even as early as 1898 the eclectic physicians Felter and Lloyd wrote of goldenseal: "Once plentiful along the Ohio river banks, it is now found only in isolated spots, having suffered extermination as fast as the woodland yielded to the pioneer's axe." So the fate of these plants is linked to the forest which nurtures them, and the plants are further threatened by massive harvest for use in domestic and foreign manufacturing. In 1997, Joy Welvey Bannerman reported that "the annual volume of goldenseal entering the United Kingdom [was] approximately 10 metric tons with an estimated value of US 1.55 million. At a minimum of 200 roots to the pound, that 10-ton import amount for the U.K. alone suggests a staggering annual harvest..." In fact, the yearly wild harvest of goldenseal plants from the American forests was computed by Joseph Brinkman and myself at between 45.4 and 68.1 million plants. And for wild Ginseng, the situation is similar. For instance, according to John Lentz of The Herbal Exchange, during the 1997-1998 season in Ohio alone, over 8,000 pounds of dry, wild root was purchased and certified. This equates to a minimum of 2,500,000 plants dug from a single state in a single year. According to John, the wild "roots have become so scarce that tiny juveniles are illegally dug and dried." The slippery elm tree (*Ulmus rubra*) has also found its way onto the UpS at-risk list, due to concerns of loss of

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At Risk....Continued from page 11

habitat, extensive harvest, and loss of trees to Dutch Elm disease. The inner bark is a much-utilized demulcent, available at health food stores in bulk quantities, is the main active constituent of several popular throat lozenges, and is also an ingredient of the Essiac anti-cancer remedy.

Three plants found primarily in the Southern United States are also found on the UpS at-risk list. The grassy roots of true unicorn (*Aletris farinosa*) which is primarily found in the sandy soils of Florida across the Southern States to Texas, are still in commercial demand. These are rarely available due to their minimal mass, limited habitat, the paucity of wild populations and the lack of cultivated material.

Venus' fly trap (*Dionaea muscipula*) is found only in a few scattered bogs of North and South Carolina. Due to popularity as a novelty plant, the wild populations were very early reduced at a rapid rate. More recently, as the anti-cancer effects became known, wild resources were again compromised, and as a result of these pressures the plant has been given a CITES listing. Although a certain amount of poaching still occurs, greenhouse cultivation of the plant is well understood and the majority of plants for the novelty and medicinal trade are now cultivated. Use of wild plants for any purpose is certainly a travesty, given their extremely limited distribution.

Peyote (Lophophora williamsii) was once abundant in its native southwestern desert habitat, but has been increasingly challenged with over harvest over the last thirty years. Although cultivation is possible by seed and by cuttings, this cultivation is also illegal, therefore in recent history the wild plants have been continually utilized. According to Rabbi Matthew S. Kent of the Native American Church "In recent years we have become alarmed that peyote is threatened with extinction in its native habitat in south Texas. Destruction of the peyote fields and incorrect harvesting techniques have created a serious shortage of holy plants in Texas, which also creates a serious threat to the existence of our church. The Mexican government listed peyote in 1991 as an endangered species, and permits harvesting for religious use. It is a fact that peyote has a wider range and grows more abundantly in Mexico than in Texas." The elders of the Native American Church approached United Plant Savers in 1996, requesting that the plant be included on the at-risk list. After reviewing the evidence, and given the frequent and widespread Native use of this cactus in healing ceremony, we responded by listing the plant. The elders then replied with the following words: "Thank you for your good works. Peyote is a sacrament and an endangered species. We hope you are not prejudiced against it because of the government's hostile position."

Crossing the Rocky Mountains into the western states, we find another group of popular native medicinal plants that UpS has determined are at-risk. These include *Echinacea angustifolia*, lomatium *(Lomatium dissectum)* and osha *(Ligusticum porteri* and other *Ligusticum* species). Though these plants are widely distributed and locally abundant throughout their prairie, Rocky Mountain and Western mountain range habitat, they are known to be slow to reproduce. For instance, even *E. angustifolia* (which reproduces *rapidly* in comparison to lomatium and osha) has been reported to take an average of 2-3 years in the wild to produce a mature flowering plant.

These species reproduce by seed, but they maintain their populations primarily because they are longlived. Therefore the harvest of too many adult individuals can seriously compromise the wild populations. In fact, a recent thesis on wild *E. angustifolia* suggests that in order to maintain the current range, wild populations can withstand a maximum yearly harvest of only 5% of the total population.

Echinacea angustifolia is the easiest of these three herbs to grow, and in reaction to a rising public outcry against use of wild Echinacea, many manufacturers are now utilizing cultivated material, especially *Echinacea purpurea*, as a viable substitute for the wild plant. Sales of Echinacea products in American health food stores exceed \$80 million annually. However, there is still a major problem with poaching of wild Echinacea species. Christopher Robbins of Traffic USA puts it mildly when he states of Echinacea "collection in the wild in some cases may be greater than what the population can withstand."

The age of harvestable-sized plants of lomatium and osha has not yet been accurately determined, but it is clear from my own experiments in growing these plants that many years may pass before they achieve adequate size to produce seed. On the dry slopes where they reside, it is very common to find a population consisting only of older individuals, without any seedlings present. Insects and other wildlife eat the seeds, and should they successfully disseminate and sprout, seedling mortality in these dry conditions is very high. Cultivation scenarios have been established for lomatium and osha, but we are far from producing the first commercial crop, and given the slow growth, it will be a long wait. I would also like to mention that Echinacea, lomatium and osha are considered "big medicine" by many of the Native American tribespeople, who view them as cultural resources to be used only by initiates. Despite this Native view, these plants are very common in commercial trade.

Another plant of the mountains of the west, which is more common in Alaska than in any other state, is sundew (*Drosera spp.*), a tiny insectivorous plant found growing only in cold water bogs. These red-green, glistening plants are extremely delicate and are entirely dependent on a very limited and distinct ecosystem, which is the reason for inclusion on the UpS at-risk list. Cultivation methodologies have been established, with reproduction both by seed and by division of the basal bulb. The plants are sold mainly as a curiosity for the nursery market, but the herb is also used medicinally. Given the rarity of sundew in the wild, only cultivated plant material should be utilized.

Crossing the Pacific Ocean to the island of Hawaii, we find Kava Kava (*Piper methysticum*), a member of the pepper family. Kava root is traditionally used in the South Pacific to make a relaxing, mildly psychoactive beverage. Kava has also long been utilized in European and now American phytomedicine as a sedative, a muscle relaxant, and as a treatment for menopausal symptoms.

Kava does not spread without human assistance, as it reproduces only from cuttings. Since it cannot reproduce sexually, the genetic diversity of existing strains is severely limited and the plant is therefore susceptible to systemic disease. Kava has within the last five years become extremely popular and remaining "wild populations" (patches of ancient plants long ago planted but forgotten) are threatened by rediscovery and wholesale harvest. These wild populations act as essential genetic reservoirs, can be nurtured to provide cuttings of new and useful strains of Kava, and will prove invaluable in the event that the cultivated fields are adversely affected by disease. UpS at-risk listing is meant to support efforts to preserve these ancient Kava plants as a part of the Hawaiian heritage.

This article was meant to provide additional background and justification for the listing of plants found on the UpS At-Risk list. These few plants represent a very obvious "tip of the iceberg" and should not be viewed as the only plant conservation challenge faced by modern herbalists. As was all too graphically demonstrated by the devastating loss of forest and plant habitat in the recent plague of fires affecting widespread areas in the mountains of the west, our wild lands and the life they hold cannot be viewed as a limitless or permanent resource. We are all responsible for maintaining the diverse ecosystems that serve as the original homes for the plants that provide our livelihood, our medicine and our inspiration. May we treat these places as true members of our most precious and immediate family, for in our interconnectedness, the fate of these wild places becomes the fate of ourselves. P

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BE A WALKING ADVOCATE FOR THE PLANTS UNITED PLANT SAVERS T-SHIRT



Northern Consumers, Southern Products

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Many products today are advertised as being environmentally safe, or harvested sustainably. In the United States, one fourth of new products introduced in 1990 advertised themselves as being "ozonefriendly," "recyclable," "biodegradable," or something similar - claims that half of all Americans recognized as pure gimmickry.

Many "green" products claim the remarkable ability to "save the rainforests." Such product claims appeal to those of us who are conservation-oriented. But sometimes these products are not as "green" as we would like to think. Does buying rainforest products really help combat deforestation and land degradation in the tropics? How does your own consumption of

trendy tropical products impact rural peasants in the region it was produced? Who really profits from your purchase? Who loses? How can we make ethical decisions when we are thousands of miles from the source?

Rainforests are the subject of much popular interest these days. Producers and advertisers are quick to notice this, and have capitalized on the concern of many environmentally-minded consumers in Europe and the United States. Attractive labels, lush air-brushed artwork of tropical plants and animals, and

socially-conscious claims help to market such products. A quick look around natural food stores reveal a wide range of edible and nonedible tropical products, and a surprising number of products that are advertised as actually originating from rainforests. However, a closer look reveals some interesting facts.

Most ingredients in 'Rainforest' cereals include rolled oats, honey, raisins, brown rice and malted barley flour, whole wheat flour, and soy lecithin. These ingredients are produced mostly in the northern hemisphere. The tropical products listed on the labels include brazil nuts, cashews, vanilla, and pineapple syrup. All four of these tropical ingredients are produced commercially using chemically intensive methods to suppress weeds, insects and diseases. In particular, cashews, brazil nuts, and vanilla are either nuts or seed pods from tropical trees grown in controlled monocultural plantations, and are uncommon rainforest trees. These tropical products are generally grown on land that was once forested, but

has since been converted to agriculture.

Brazil nuts, and especially cashews, found on the labels of many "rainforest" products, are produced on monocultural tree crop plantations using energyintensive and other unsustainable farming methods. The brazil nuts and cashews in some rainforest products are produced on an "experimental extractive reserve" set up by the Brazilian government. The nuts are then exported to the U. S., where they are marketed as "green" products to conservation-minded consumers in the northern hemisphere.

Sustainability: more questions than answers

This venture has been criticized by environmentalists, tropical foresters, and forest

economist who study issues of sustainability. Many forest believe economists that products advertised as having origins in rainforests will actually increase demand and extraction rates for tropical products, hastening land degradation and deforestation. "Green" advertising is largely unregulated and unverified, and many products sold as being environmentally sound actually have the potential to put greater extractive pressure on tropical ecosystems. There are few details (such as project

descriptions and evaluation reports) available about the socioeconomic development programs supported by these manufacturers, and not much information about what percentage of profits are donated to "save" rainforests, or the identity of the recipients.

For those nuts that are actually collected ("sustainably harvested") from rainforests – how then is the natural regeneration of these trees impacted by removal of germplasm (seeds and nuts) that ends up in our breakfast cereal? Scientists have much to learn about rainforest ecosystems and natural regeneration in rainforests – no one really knows at what point the rate of extraction exceeds natural regeneration.

The term "sustainability" is often used by advertisers, and is the latest buzzword. But the term is falling into disfavor among environmentalists and scientists. At last count there were more than sixty definitions in use, with a wide range of meaning. There is little consensus on what sustainability means. In practical, operational terms, sustainability means

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whatever you want it to mean. A manufacturer can claim that something is "sustainably harvested" without giving details as to exactly how a food product (such as a nut or seed) is extracted, in what quantities, or how natural regeneration or reproduction is affected. Tropical foresters now have a system in place to monitor and certify the extraction of tropical hardwoods and timbers that are marketed in the

United States so that consumers can make an informed decision. No similar system exists for foodstuffs. Who is really consuming the rainforests?

The main agents of rainforest deforestation are loggers, cattle ranchers, and resettled farmers. But northern consumers are also contributing to the trend by their increasing demand for forest-based tropical food ingredients and products. Northern consumers also contribute to unsustainable overuse of tropical lands by our demand for non-food products such as tropical hardwoods, fibers (rattan and wicker baskets, incense, plants, live-caught birds, reptiles, animals and aquarium fish, and other "natural" products). **Rainforests and boreal forests**

Many environmentalists are puzzled by the popular American fixation with exotic rainforests, as compared to other types of ecosystems that are threatened. Other types of global forests are under even greater pressure than rainforests due to deforestation cloud forests, mangrove forests, African and Asian semiarid open forests, and boreal forests to name a few. Many environmentalists note that so much popular attention is "saving" tropical focused on rainforests that we are blind to the large-scale logging and destruction

of the boreal and sub-boreal forest ecosystems of Minnesota and Canada on a scale that rivals that of rainforests. Biological diversity is equally threatened in boreal forests by logging and over-extraction.

Costs of high-input production and consumption

The tropical ingredients in "rainforest" products are imported. The energy required to transport tropical food crops (and to preserve them during transport) is considerable. In some cases the energy and transport costs are higher than the value of the good itself, which ultimately raises costs to distant consumers. Our food chain is becoming increasing far-flung and energydemanding.

On the environmental side, the method of production is of concern. Large-scale, export-oriented monocultural plantations are prone to soil loss, and are large consumers of energy and agrochemicals. Biological diversity has already been lost, especially on

GUIDELINES FOR SHOPPERS

• Buy products that are locally produced, reducing the high-energy inputs need for transport of a tropical product from abroad.

• Check labels to identify products that are produced on cooperative farms, family farms, grower's collectives, or other small-scale producers.

• Choose products grown with organic or IPM methods (which are labor-intensive, but less energy and chemical-intensive).

• Avoid products that use ingredients harvested from natural forests. In particular, overharvesting of nuts & seeds may slow natural regeneration of trees in a natural system.

• Many products claiming association with rainforests are highfat, sweet, or cosmetic items that we can live without. Ask yourself, "do I really NEED this?"

• Be informed! Check out books on consumerism that can help you to make more informed decisions. Durning's <u>How Much Is Enough</u> or Gusson's <u>Chicken Little, Tomato Sauce, and</u> <u>Agriculture</u> are excellent introductions.

• Inventory your environment for tropical products as a reality check, and as a way to become aware of our personal use of global products. farms that are monocropped.

The ease with which we can obtain and consume products from other parts of the planet is something that we have become accustomed to, and even expect and demand; but the globalization and commercialization of our household economies has cost the natural world dearly in terms of energy, wastes and garbage, and depletion of natural resources. These global supply lines leave indelible marks on the terresterial and aquatic ecosystems they traverse.

Malayasian planters spray lindane and aldrin (chemicals forbidden in the United States) on the cocoa that becomes sweets for consumers in the North.

On the social and economic side, large-scale high-input production and marketing systems perpetuate inequitable labor markets and political systems; and there is little evidence that the rainforest projects initiated by manufacturers of rainforest products have been successful. Such development projects often attempt to replace indigenous lifestyles and economic activity with new, untested ones based on neoclassical economics and incentive systems. These are rarely successful or sustainable. The larger economic and political forces that favor cattle

ranching and timber contracts must first be dealt with to enable indigenous forest dwellers to maintain their way of life.

In the final analysis, we are all of us consumers, and we all make choices about the foods we eat and how we live. A basic tenet of conservation is to do no harm. We can all learn to be low-impact consumers and to avoid inadvertently causing environmental harm in distant places by the economic choices we make in the future. P

UpS Sanctuary Network

One of the ways that we, as interested and passionate plant people, can have a positive impact on the survival of our native medicinal plants plants and continue enjoying the medicinal benefits they offer is to join the UpS Botanical Sanctuary Network.

A Botanical Sanctuary may be a part of any piece of land. It can be a city garden, organic farm, or a wild protected space. A small parcel of land or a huge acreage can equally qualify if it contains native medicinal plants and meets a few other simple requirements.

A UpS Botanical Sanctuary must be a place where plants are protected and nurtured as they grow and

thrive. It could be an educational center, garden, or medicine trail where people can learn about these plants and their uses. It may be a research site for learning about the cultivation or wild habitat requirements of these plants, or it might become a valuable seed bank for the long term preservation of atrisk plants. There are many ways that your personal land space can qualify to become a Botanical Sanctuary.

To learn more about becoming a UpS Botanical Sanctuary write P. O. Box 98, E. Barre, VT 05649; visit our website at http://www.plantsavers.org., or send email to info@plantsavers.org.

~ Meet A Few More UpS Sanctuary Network Members ~

Adirondack Botanical Sanctuary Sanctuary Steward: Jane Desotelle RR2 Box 540 Chateaugay, NY 12920

Determined to continue to live and work in the woods, I turned a hobby of collecting wild herb teas into a business in 1979. Without ever using the word sanctuary that is how I have used my land. My herb business was able to grow without using wild medicinal roots. The wild food walks I've held over the years have developed into plant appreciation walks with all class fees going towards plant

protection. Living on dirt roads I have dug up many plants needing protection f rom roadside ditches and moved them to a safe place whether on my land or deeper into the woods.

As more people move into the area the need to protect plants increases. I am so glad United Plant Saver's has started the sanctuary program. It can make my "rescue missions" more official



as I need to reach out for others Photo courtesy of Kathy Aprill

to help. As I only own an acre, the main future project is to expand the sanctuary. Room for a research project on rare plant propagation and an educational center is needed. P Desert Canyon Farm & Learning Center Sanctuary Steward: Tammi & Chris Hartung 1270 Field Ave., Canyon City, CO 81212

Desert Canyon Farm & Learning Center is a 5 acre certified organic farm and botanical school located in the high mountain desert of southern Colorado. It has been in existence in this location for 6 years and is home to a wide diversity of plant, fauna and people. Existing on the land are over 300 species of native plants, many of which are medicinal. Dozens of varieties of trees have been planted, some of which are native, others are not, all are water wise. The mother gardens serve as propagation sources and outdoor classrooms.

The botanical learning center hosts many different training programs in herbalism and organic growing. The school offers an herbal apprenticeship, correspondence course, intensive training programs, and public workshops, tours and other events. Programs are open to the public, private organizations, schools and universities. The school is open year-round and annually nurtures about 500 students.

The farm is a certified organic wholesale operation with many specialties. Farm products are



quite diverse. They include potted plants (natives, dryland perennials, herbs of all types, specialty and ethnic vegetables and field-grown bare-root perennial production for the nursery industry. We also produce field-grown medicinal plants sold to the natural products industry, including one of the only large scale certified organic Yerba Mansa crops available. Production of rare and unusual wildflower seeds are raised in large quantities for Colorado State University's Plant Select research project, and also for U.S. and German seed companies.

We offer consulting services to many different industries, including universities and medical professional groups, the organic farming community, greenhouse/nursery/landscaping community and the natural products industry. These services include plant research of various types, organic growing expertise, native plant expertise, herbal formulation and product development, and educational services.

The farm and learning center have become a community place and evolving example regarding land and natural resource stewardship. Irrigation systems have been designed appropriately for farming in a water-scarce geographic region. Governmental agencies have become inspired to grow display gardens reflecting dry-land and medicinal plants and using organic growing methods. Local store vendors use the farm as a resource tool for their own projects. Neighbors have become an integral part of the farm's family heart by working on the farm, strolling here, volunteering to help on major improvement projects (they thought this piece of land would become a mobile home park and they are delighted to have a farm and school here instead). Local beekeepers keep their bees here, which not only benefits the farm's crops, but neighbors have not seen honeybees in this area for many years and now their fruit trees have begun to produce fruit again thanks to these buzzing pollinators.

Gray herons use the irrigation pond and salamanders live at the pond in the summer and migrate into the greenhouses every winter instead of hibernating. Deer, coyotes and jack rabbits are among the many creatures who are comfortable here and use this space as a traveling corridor through a human

populated area. One doe has used our red clover field and the neighbors' barn as a birthing nursery for twin fawn the last three springs. We are truly blessed that all these creatures consider this place safe haven and a part of their home. P



Buck Mountain Ranch Sanctuary Steward: Terrence Fox & Family HC 30, Miles City, MT 59301

Our family owns, or has under contract and operates about 20,000 acres of plains, hills and mountainous semi-arid land in southeast Montana between the Yellowstone and Powder Rivers. We call this land Buck Mountain Ranch. This beautiful country ranges from an elevation of 2,500 to 3,400 feet. The upper elevations, above 2,800 feet, support large stands of yellow pine and juniper. This high plains paradise was used as range land. Now the pristine wilderness is managed for the benefit of the abundant flora and fauna found thereon.

According to the geologic record, Buck Mountain has been in place for about 55 million years. It will be here in ever-changing form for many million more years. It is "privately owned", but to discuss ownership is silly since, at best, our family is a short-term caretaker of this wonderful scape of life.

Since the initial land purchase in early 1994, we have labored to return the land to its native flora and fauna. In the process we have spread native seeds each year and planted thousands of trees and shrubs. We have repaired and expanded dozens of ponds, dams, and dikes to retain water in this land of sparse precipitation.

Many have encouraged us to cut the mature cedars and pines because of the strong commercial demand. Trees are not renewable in our lifetime. They will not be harvested.

One resource we have in seemingly unlimited quantity is *Echinacea angustifolia* – purple coneflower, thousands of acres of virgin stands that have never been plundered. Our plan is to sustainably cultivate and harvest plants which we have encouraged.

There currently are many medicinal plants growing naturally on this land: hawthorn, arnica, wild rose, yucca, yellow dock, juniper, yarrow, grindelia, echinacea and pasqueflower have been identified and are plentiful.

R&D effort are being made to cultivate Arnica (latifolia and cordifolia), Pasqueflower (Anemone patens) and Echinacea angustifolia. Other

> species may be added in the future. Our family has decided to make two of the most most diverse and beautiful sections of the ranch (approx. 1,300 acres) a UpS Botanical Sanctuary. By being a part of this movement we will meet and associate with like-minded persons all to our benefit. It is the intent of the Fox Family to protect and expand the abundant flora on our property. P

E. angustifolia at Buck Mtn. Ranch

UpS Community Grant Projects

Dear UpS,

Thanks to your financial help and other support, the Federal Street School after-school program was a tremendous success. The plants are thriving in their new home at Salem Woods. We have gone back to check on them several times. It does my heart good to see the children beaming with pride when they can identify their 'adopted' plant along the trail and find it in good health. The children may not yet fully understand the complexity of their efforts, but they do enjoy this wonderful feeling one gets when doing something good. Some of my students had never walked through the woods before. It was a privilege

for me to open their hearts and minds to the green world that exists around the corner from their homes. Our school's Garden Club is an ongoing program, so that the upper grade students can pass on the stewardship of the plants to the new members.

Besides the rare plants we planted at the city's only conservation land, we spotted Pink Lady's Slippers growing only a few feet off the trail. The excitement amongst us is hard to describe, especially after I

had shown the kids photos and explained the reasons why these plants are now so rare. They knew how disappointed I was that I had never seen a Lady's Slipper in all my years walking the forest trails. Discovering them in our woods led to more connections with the "green people" in my town. One can't help but share the good news!

Another successful event was the UpS slide show. The students brought their parents and siblings and several members of the Salem Garden Club joined us. The adults were interested to learn about where the herbal supplements they are taking or have heard about are coming from. They enjoyed hearing each plant's individual story. Of course our young green friends eagerly shared which plant they rescued that was featured in the slide show.

We are currently working on a permanent display to be mounted at the entrance of Salem Woods. It will inform visitors about our club's activities, United Plant Savers, and the special plants, now growing at the sanctuary. With your help, the school's garden club brought a lot of our community's attention to the plants in need. Children and their parents have

> proven to be very receptive to the concerns and recommendations we share as herbalists.

I am very grateful to Rosemary Gladstar for being such a great inspiration for me. Her powerful teaching and the way she reflects her strong connection to Mother Earth encouraged me in many ways to follow my heart. Not only do I now express my passion for plants freely, I also act on my conviction that we must work diligently to help children reconnect with



nature.

Special thanks to Nancy Sarzello for acting promptly on any request, answering any questions and just always being there with constructive advice and encouraging words.

For myself and on behalf of the children of the FSS-Garden Club I would like to thank you for your generosity. We appreciate the opportunity you gave us to become Green Keepers in our local woods.



FUNDS AVAILABLE FOR COMMUNITY PLANTING PROJECTS

United Plant Savers has a fund designated for community replanting projects. UpS guidelines require that the project have educational merit and that the land proposed for replanting be protected either by individual ownership or be part of a school or park system. For information on securing grants for replanting write to: UpS Community Replanting Fund Guidelines: PO Box 98, E. Barre, VT 05649.

Medicinal Plant Working Group Conservation Project

The Conservation Committee of the Medicinal Plant Working Group met this June with local botanists, Garden Club and Native Plant Society members, USFWS & Forest Service representatives, and other interested groups to determine feasibility of the MPWG Conservation Committee partnering with volunteers from local Garden Club chapters to carry out a project to provide data to support medicinal plant conservation.

The Committee is developing a list of medicinal plants of concern around which to focus projects that would determine frequency and abundance of specific medicinal plants and their sustainability in relation to harvest trials. In the absence of available funds, the committee is investigating the feasibility of working with volunteers through a project that might serve as a template for similar projects in other parts of the country. Discussions among Committee members as well as others who attended the Asheville meeting suggested a need for the following elements:

Participants shared a range of information and concerns pertaining to the status of medicinal plants on public lands in western North Carolina:

- Concern for the rare status of goldenseal and ginseng in the region made them less attractive candidates for survey work by volunteers. Concern that possible trampling of medicinal plants might result as a byproduct of the project was also expressed.
- The Forest Service has established plots and conducted some inventory work in the past, though this information may be of limited utility as it concerns understory herbs.
- The North Carolina Wild Flower Preservation Society plans to create a bank of volunteers to assist with inventory projects within the next few years.
- Consensus was reached on the importance of reaching out to consumers to alert them to the impact of demand for the popular medicinal products on wild medicinal plants.

The group agreed to focus its efforts on determining how much black cohosh and bloodroot can be harvested sustainably from a population. Discussion of the Ramps Sustainability Study carried out in Great Smoky Mountains National Park led to a decision to outline a sustainable harvesting project focusing on black cohosh and bloodroot, using 3 plots to be established on Forest Service lands and to return the following year to collect follow-up data. It was also decided that:

- The Conservation Committee will develop an experimental protocol.
- The Garden Clubs will work with the MPWG and the National Fish and Wildlife Foundation to seek funds for a project coordinator.
- The Garden Clubs will look into initiating a related project in the West Virginia area.
- The Forest Service and Fish & Wildlife Service will consider ways to better publicize the extent of medicinal plant poaching. P

Internships in Organic Gardening & Medicinal Plant Farming

One of the best ways to learn how to grow medicinal herbs is to apprentice with those already knowledgeable in the art. Here are some of the upcoming opportunities we've heard of. If you hear of others, let us know. Apply now for next summer's opportunities.

UpS Botanical Sanctuary Internship Program

Two sessions, each 3-1/2 mos., March thru June and July thru Oct.. For info, write to P.O. Box 98, E. Barre, VT 05649. More info on page 26 of this newsletter.

The National Center for the Preservation of Medicinal Herbs

The Center is looking for interested people who would like to apprentice on the farm during the spring and fall growing/harvesting season of 2001. Programs go from April 15 to June 18 and Sept. 29 to Oct. 27. For info, please write to: Apprentice Program, National Center for the Preservation of Medicinal Herbs , 33560 Beech Grove Rd., Rutland, OH 45775, or call 740-742-4401, fax 740-742-8303.

Herb Pharm's HerbaCulture Work/Study Program

Herb Pharm is offering a 16 week work study program. Application deadline is Feb. 1, 2001, however acceptance decisions will start Dec. 1, 2000. To apply, please write to: Monica Lloyd, Herb Pharm, PO Box 116, Williams, OR 97544, or email: workstudy@herb-pharm.com

Apprenticeship in Ecological Horticulture

The Center for Agroecology at UC Santa Cruz offers a sixmonth full-time training course. Application deadline is Nov. 1, 2000. For info, write: Apprenticeship Information, Center for Agroecology, 1156 High St., Santa Cruz, CA 95064; email: annemari@zzyx.ucsc.edu

Plants in the News

Native American Food Systems Project

The Evergreen State College's Northwest Indian Applied Research Institute (NIARI) has joined with South Puget Intertribal Planning Agency (SPIPA) to establish *a Native American Food Systems Project*. SPIPA is a non-profit organization whose membership consists of the Nisqually, Shoalwater Bay, Skokomish, Squaxin Island and the Chehalis Tribes. NIARI is a Public Service Center of the Evergreen State College whose purpose is to make the resources of The College available to the tribal communities and Native American Organizations in Western Washington State. Our goal is to establish & implement the goals & objectives of the Native American Food Systems Project.

Background & Problem Statement: For thousands of years Pacific Northwest Tribes had food systems in place that sustained naturally healthy communities. These food systems were rich in tradition & ceremony, while connecting integrally to trade, commerce and environmental practices. However, within one hundred years after the beginning of the Colonization Era the cultural, political and socioeconomic conditions of Native Americans were greatly disrupted and often completely destroyed.

The health of native people has been greatly

impacted historically by the ravages of European dis-

Today, poor diet is the biggest threat to the health of Native Americans resulting in high rates of obesity, heart disease, high blood pressure, diabetes and stroke. With a few exceptions, tribes are still the most economically impoverished communities found within the United States and many are served by theUSDA Commodity Food Program which is characterized by starchy, highly refined & processed foods.

Proposed Solution: The Native American Foods Systems Project is a living educational foods systems program designed to assist participating tribal communities in addressing serious sustainable Native American food production systems within tribal communities. Community education and organizational development at the local level will be a necessary and very important component to the success of the project.

To find out more or how you can help contact the Native American Food Systems Project, 1118 Blaine St. Port Townsend, WA 98368 Tel. 360-385-1063 Email: waters@olympus.net. P



Goldenseal Research Projects

At the National Center for the Preservation of Medicinal Herbs many research projects have been undertaken on the cultivation of Goldenseal (Hydrastis canadensis). A total of 154 research beds of goldenseal have been planted in the fall of 1998 and 82 in the spring of 1999. A series of randomized, replicated field research plots were planted.

The studies undertaken included comparisons of planting different root sizes, cultivated beds ammended with mushroom compost vs. planting in the wild, solar direction of the planting area, and different irrigation treatments.

Ohio University students are conducting research

projects to determine what wildlife, if any, eats the berries of the goldenseal plants. One huge lesson learned from planting two different lots of rootstock was that the quality of the roots is everything. The growth and vigor of the superior roots was quite significant, as was the rot factor of the poor roots. Many of the poor quality roots simply did not make it into the planting beds because they rotted before they could be planted.

For information regarding the intended purpose of this research, please refer to our original goldenseal cultivation research paper located at www.ncpmh.org.

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GINSENG – Wild or Cultivated?

by Scott Harris

No one will argue the fact that American Ginseng (*Panax quinquefolius*) has been over-harvested from our woodlands. Wild or "*supposed*" wild ginseng roots have always commanded a much higher market price than the cultivated version. I will attempt to explain in further detail the reason I say "*supposed*". As it stands now, I truly doubt if there are many *true* wild ginseng patches left in America.

As recently as a century ago, properly dried wild ginseng roots were selling at an average price of \$5.20 per pound! This was back in the days when a man that earned a dollar a day was considered "gainfully employed". A small farm with a habitable dwelling could be purchased in the neighborhood of \$400-\$500. The digging of wild ginseng roots offered untold

opportunities for many struggling families. Entire households would set out through the woods, walking shoulder to shoulder in a vigilant search for this valuable plant. Trips such as these would often last days on end, stopping only to set up a crude camp for the night and continue the hunt the following morning. The previously described had been activity repeated thousands of times since the early 1700's. By the year 1800, ginseng was considered to be scarce. Every inch of the Eastern States had been combed by wildcrafters looking for the elusive plant.

After nearly 300 years of overharvesting, how is even a single wild

plant remaining? The only conceivable answer to this lingering question would be that the early procurers of the root engaged in the practice of replanting seeds back into the wild.

While demands for the root increased, supplies dwindled and cultivation efforts began throughout the eastern states. Attempts to tame the wild ginseng were repeatedly met with failure. George Stanton, a tinsmith from central New York State is considered the *"Father of the Cultivated Ginseng Industry"*. His methods for successful cultivation were soon adopted by other growers and thus began the greatest replanting program in history.

By 1900, ginseng seeds as well as young rootlets from New York, Ohio, Kentucky, Illinois, Indiana and Tennessee were being offered for sale through hunting & trapping magazines. Mass plantings occurred in every region that would support ginseng. A high

America today. Final State St

supported "wild" populations.

percentage of these seeds and roots were planted back

into the wild setting, often in sites that previously

called wild ginseng *really* wild ginseng? Last

September I happened upon what would be considered

by some as the largest patch of "wild ginseng" left in

This brings us back to the question of when is so-

would you define this ginseng? Would it be "wild ginseng" because it was found in the wild or "cultivated ginseng" because someone had intentionally planted it? It is my best guess that someone planted ginseng seeds in this area from 1975 through 1981 and for some unexplained reason, abandoned the project. I wonder how many sites like this are vet undiscovered. We have since planted an additional 25,000 seeds into this area, taken soil samples and will continue to monitor the progress of both current and past plantings.

As a registered New York Ginseng dealer and a member of

United Plant Savers, I am often called upon to take "sides", which I refuse to do. I assure you that our longterm goals run a parallel course. Let me say that if it weren't for our forefathers replanting and cultivating ginseng, not a single one of us would have had the opportunity to ever see a plant in the wild. Every ginseng dealer that I know donate ginseng seed to wildcrafters each year to plant back into the woods. They should no longer be viewed as villains, nor should the responsible wildcrafter who plants the seed as they have for many generations. Our company, Sylvan Botanicals, is responsible for the planting of over 7 Million ginseng seeds and tens of thousands of roots back into the wild. We encourage all ginseng dealers to adopt the policy of sponsoring "give away" programs such as that offered by United Plant Savers.

Continued on page 23



Panax quinquefolius, photo by Martin Wall

Cultivation Corner

Cultivation of American Wild Yam

by Richo Cech

American wild yam (*Dioscora villosa or D. quaternata*) is native to the Central and Eastern United States, from Minnesota south to Texas and across to the Atlantic States, excluding the states of northern New England. In northern areas, it can be grown very successfully in a greenhouse, as the plants prefer filtered light and warm, moist conditions. In southern states or on the western seaboard and California, wild

yam may be readily propagated outdoors. It prefers a site in open woodlands or at the edge of the forest, where there is partial sun exposure, and where there are small trees and brush for the vines to climb.

Propagation is either by seed (difficult) or by root cutting (easy). Seeds develop only on female plants, as wild yam is dioecious. Note Sena's illustration of the characteristic three-winged seedpod, each section containing two discshaped, winged seeds. These seeds may be removed from the mature, dry pod and sown immediately, or may be stored for planting at a later time. They should be sown in the fall, midwinter or very early spring, outdoors in pots, flats or directly in a

shaded woodland nursery bed. *drawing by Sena Cech* Germination occurs in the spring as the ground warms it up. The cold conditioning period, natural rain, a snowfall and oscillating temperatures afforded by for sowing the seeds outdoors is a good stimulus to efficient germination. The seedlings are quite sensitive and should be left undisturbed for two years, except

(of course) to keep them weeded and watered. Then, once the rootlet begins to swell into a rhizome, the seedling may be transplanted to its final location. Raising wild yam from seed takes four years from sowing to harvest of a good-sized root.

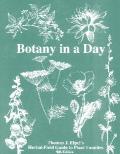
Root cuttings are generally made in the fall, after the parent plant has matured its fruit and started to die back. Choose the young, vigorous and growing portions of the rhizome, which are covered with many root hairs, then cut or break the piece to at least two

> inches in length. The cuttings are best planted out immediately, thereby allowing them to become accustomed to the new environment before the growing season. Plant the running rhizome about

2 inches deep, with the root hairs down. Spring transplanting is possible, but disturbance at this time of year can damage the newly emerging vines. Planted in a good spot in the woods, a nice cutting will grow into a harvestable sized plant in two or three years. Planted in shaded beds or pots in the greenhouse, the plants will attain harvestable size in a single season, with significant added yield if the plants are allowed to grow for a full two years.

I enjoy growing wild yam in the west. It has a "fi magical way about it, humming a little plant tune to itself as it courses about, looking for a twiggy hold and a place to hang its seedpods away from the moist forest soil. The vines are delicate and attractive, the seedpods are really interesting, and the roots yield plenty of medicine with very little upkeep. P

Botany in a Day Thomas J. Elpel's Herbal Field Guide to Plant Families



Too often people try to learn plants one-at-a-time, without rhyme or reason. Now you can cut years off the process of learning about plants and their uses. Tom's book helps you beyond the piece-meal approach to botany and, taking you beyond the details towards a greater understanding of the patterns among plants.

Learn how related plants have similar features for identification. Discover how they often have similar properties & uses. Includes more than 100 plant families and over 700 genera. 196 pg., 400 illustrations. A text at herbal and wilderness schools across North America. **HOPS Press is donating \$1 from every copy sold to UpS.**

To obtain a copy contact: HOPS Press, 12 Quartz St., Pony, MT 59747

tel: (406)685-3222

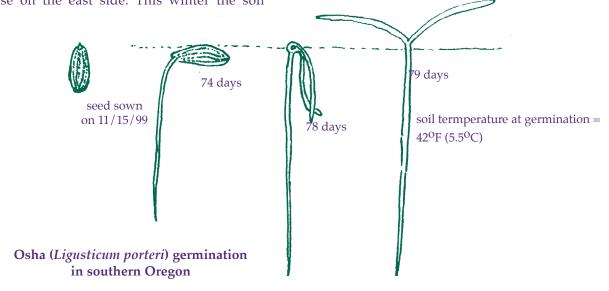
New Findings on Germination of Osha

by Richo Cech

At Horizon Herbs' farm we have often planted Osha seed, and like other farmers, we have seen little or no results regardless of our methodology. This year we've been experiencing spring all winter long. I don't know what bearing this may have had on our surprising success in planting the new harvest of Osha seed, but here are the results to date:

Scott Lindley collected the seed in the fall of 1999 up on Sandia Peak above Albuquerque. Like any good herbalist/seed collector he waited until seeds were mature and dry on the plant, and then rubbed them off the crumbling umbel into a bag. I received them in early December, and planted about 300 seeds on December 15, sowing about 1/4 inch deep in rich soil in an outdoor nursery bed located outside my greenhouse on the east side. This winter the soil temperature in these beds has been oscillating between freezing at night and 42 degrees F (5.5 degrees C) during the day. I noticed (with due surprise and exclamation) germination occurring in late February, and by early March 90% of the seeds had germinated and emerged. Orientation of seed in soil had no impact on it's germination.

I attribute this success to the fact that the seed was very recently harvested, and to the effects of outside conditions in breaking their dormancy. The longer I work with recalcitrant germinators, the more I realize that the answer lies not in mimicking wild conditions in the refrigerator or freezer, but rather giving the seeds over to nature, and letting her sprout the seeds. Outdoor nursery beds rule!



Wild or Cultivated....Continued from page 25

Encouraging a total ban on the harvesting of *"wild"* ginseng will set forth the greatest extirpation of this plant from our woodlands that we have seen to date. Prices will soar to heights well above \$1,000 per pound as Asian buyers race to purchase every available root, perceiving this as the "last chance" to get the cherished American root. Patches that have been tended for generations will be dug completely clean, dried and sold to the highest bidder. Millions upon millions of ginseng plants will disappear overnight.

The only answer to this dilemma is to enact "Wildcrafter Education Programs", which would require harvesters to be licensed and also attend an educational workshop. I'm well aware that this proposal will not be well accepted by the self-reliant and independent ginseng diggers. However, given the alternative of a total ban on the harvesting of *"wild"* roots, they will realize it will in their best interests.

My second recommendation would be to call upon the U.S. Forest Service to initiate a planting program. The USFS have thousands in their employ, so why not utilize them to meet our common goal? If every person assigned to outdoor duties planted a single ounce of seeds, each employee would be responsible for introducing 400-450 ginseng plants into the wild.

Scott Harris is the President of the ESGGA, a member and contributor to UpS and President of Sylvan Botanicals, seed/root supplier, organic ginseng grower and participant in ginseng research programs currently being conducted through Cornell University.P

UpS PRESENTATIONS IN YOUR COMMUNITY

One of the rewarding & effective ways you can work on behalf of our native medicinal plants is by making presentations to local groups. Schools, garden clubs, and community organizations are usually delighted to welcome such an interesting presentation and appreciate being made aware of the issues and how they can help. By speaking to local groups, you help to increase the network of awareness and have the incredible opportunity of sparking people to become involved in the solution.

UpS has available a beautiful **slide show** and **video** to accompany your talks, and we can send you our welldeveloped guidelines on making such a presentation. We can also supply you with UpS membership brochures, as people inevitably want to join UpS and learn how to become further involved.

Be part of spreading the grassroots, touching the hearts of kindred spiritis, growing the green network in your local community. Contact Nancy Scarzello at the UpS office for more info. P

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Slide Show of "At-Risk" Plants

UpS members are invited to rent this beautiful, informative slide show of "at risk" medicinal plants. These slides provide a visual guide to the purposes, projects, plants, and people that make up United Plant Savers. The show contains over 80 slides and comes with an informative script.

The slide show is excellent for presentations to garden clubs, conservation groups or local community groups in order to increase awareness of the plight of our native medicinal plants. Please call Nancy Scarzello at 802-496-7053 to arrange rental at least three weeks before your presentation dates. Rental fee for the slide show is \$35, or it may be purchased for \$89 (shipping and handling is included). Send check or money order to: UpS Slide Show, PO Box 98, E. Barre, VT 05649

UpS Video of "At Risk Plants"

UpS member/videographer Nancy Borden has produced this informative video on the challenges facing at risk plants. Through a series of interviews with herbalists, UpS board members, farmers, and concerned consumers, Nancy skillfully presents the issues facing native medicinal plants, describes the work UpS is doing to make a difference, and suggests ways each of us can become a part of the solution.

This 15-minute video can be purchased for \$12, or rented for \$5. Help spread the word to schools, herb gatherings, environmental organizations and through local cable TV networks. To order send check or money order with \$1 s/h to:

UpS Video, PO Box 98, E. Barre, VT 05649

	Sign me up! I want to becom	e a member of United Plant Savers.
ame		
Address		
City/State/Zi	ip	
el:	Fax	Email
	Members	hip Categories
	□\$35 Individual	□\$100 Green Thumb
	□ \$50 Organization	□\$1,000 Lifetime
		□ Other \$

Going Native

by Kathleen Maier

One enchanted evening, one misting October eve last year, over one hundred people gathered in the name of Nature. Washington, Virginia is located 80 miles due west of Washington, D.C., and yes, George not only slumbered here, but the town was also his first site of employment as a young surveyor. We met in the old town hall, which served as church, clerk's office, meeting place and court over one hundred years ago. This picturesque town, shadowed by the Blue Ridge Mountains and Shenandoah National Park, is steeped in beauty, history and memories of our ancestors. Yet when we step back to regain perspective along "the Carl Sagan timeline", we realize that the history this town celebrates is but a nanosecond in relation to that of Planet Earth. And from the beginning of this planet there has existed a delicate pulsing, vital web of life that has protected and perfected life on earth. This web is the matrix that

shamans and other seers work with and mourn the loss of as its fabric is loosened and destroyed through lack of consciousness.

Dreamtime Center for Herbal Studies hosted UpS that October evening. The intention of the gathering was to work in local fashion to strengthen the matrix of our county and of neighboring counties through the powers the plant world offers. We were touching the traditions of old. We were creating sacred space, calling on the community to gather and shift thought and energy and that m

thought and energy and that means consciousness.

The event was a fundraiser for United Plant Savers. There was an elegant gourmet dinner for those we felt might be able and interested in supporting UpS through generous donations. After dinner the larger group gathered in the Town Hall and the stage was set by inspirational presentations by Rosemary, Paul and Richard. This was followed by a performance of a local theater group, Friends of Gaia, whose greater than life size masks and costumes are truly remarkable.

The following are projects that have resulted from the seeds planted last October:

• Two prairie projects have begun at Dreamtime Center

• Three two-acre ponds have been seeded with natives and over one hundred native plants are scheduled to be planted near the ponds by late August on Sunnyside Organic Farm (home to Dreamtime). • A native plant project was designed and accepted at the local high school and awarded \$1,000 in seed money for plants and mapping project.

• The Virginia Department of Transportation has adopted a "no-mow" policy along certain highway median strips where herbalists have specifically noted heavy native populations growing.

• Native nursery owners are realizing a growing market for adaptogenic herbs in that they are finding it impossible to keep up with local demand.

• Local enthusiasm has been the driving force for Dreamtime to co-host a UpS event with Indian Pipe Outdoor Technical School for the first weekend in May, 2001 (*See page 30 for details*).

• Three days after the event, my family was gifted 25 acres and a luscious home where we have begun the Lizzie Mills Native Plant Sanctuary.

• Dreamtime graduate, clinical herbalist Margaret

Hopper designed, planted and is maintaining Druid Hill Native Plant Sanctuary in Front Royal Virginia. This was accomplished with the brilliant efforts of Peter Heus of Enchanter's Gardens from Hinton, West Virginia. He also supplied Dreamtime with magnificent plants and prairies seed mixes.

In all honesty I was disappointed in the amount of money we raised. Our county's beauty is matched by its affluence, and a very conscious elite at that. Yet, once again, we learned how the plants choose their allies. The evening was about raising consciousness as versus funds. We

were able to cover our guests' expenses yet their time and energy was invaluable. Obviously UpS has great financial needs to accomplish all that it has set before itself. We hope to support this need at our May, 2001 conference. On that enchanted evening though, we realized that we were served best by the seeds of passion and truth so eloquently sown.

As families and friends left that night you could almost see the plans forming. Simple gardens of natives would line paths, surround woodsheds, beautify schoolyards or delight pond dwellers. And indeed this has happened. There is a buzz in the air. There is an informal chapter forming for plant rescue and talk of a countywide mapping project. The web is up, the fabric gaining strength. I swear I hear more singing now when I am alone in the woods. The natives are happy. P



UpS Botanical Sanctuary Update

Spring 2001 Plant Giveaway

AMERICAN CHESTNUT Castanea dentata

Since the founding of our nation, the American Chestnut was a source of great value for its timber and its nuts. Settlers called it the "King of Trees." It provided significant forage for animals, and the wood has an incredible ability to withstand rot. With a trunk up to 12 feet in diameter, it once made up almost half of the eastern hardwood forest and is now all but extinct.

In 1904, the chestnut blight first appeared at the Bronx Zoo in New York City. The "blight", actually a fungal disease, is believed to have come in with the Chinese Chestnut, which carried the disease but was resistant to it. Wind spread the disease quickly and far, so that there was no controlling it. In a few short



decades the "King of Trees" was virtually extinct. The state of Pennsylvania tried a massive program to control its spread but to no avail.

There remains one stand of American Chestnut trees in Michigan and one in Wisconsin that seem to be blight free. Last Spring, Paul Strauss, steward of the UpS Botanical Sanctuary, obtained 1,000 seeds from these blight free stands and has had almost 100% germination growing the young trees in raised beds.

Thus, we are delighted to announce that our Spring 2001 Plant Giveaway will be two bareroot seedlings of American Chestnut trees.

In 1983 the *American Chestnut Foundation* was formed to restore this American treasure by working to develop blight-resistant seed and to restore the American chestnut to Eastern forests through scientific breeding programs and cooperative research. For more info contact The American Chestnut Foundation, P.O. Box 4044, Bennington, VT 05201, (802) 447-0110; email: chestnut@acf.org

UpS Sanctuary Intern Program Hardworking? Motivated? Want an opportunity to live and work on a farm? Join us in our Sanctuary Intern Program!

Two sessions, each 3-1/2 months, are scheduled (mid- March to mid-June, and July to mid-Oct.). Interns work 30 hours/week doing a variety of medicinal plant conservation and cultivation projects.

A hands-on practical approach, classes, and opportun-ities to work with various staff are scheduled. Interns learn medicinal plant identification, sustainable wild-harvesting principles & practices, and medicinemaking.

Cost for each session includes camping, workshops at the Sanctuary, and sleeping quarters.

For more information, contact UpS Sanctuary Intern Program, 35703 Loop Rd., Rutland, OH 45775. tel: (740)742-3456.

Botanical Sanctuary Donations

We wish to thank the following folks for their financial contributions to the Sanctuary:

- Christopher Hobbs Craig Kinzelman Herb Pharm SW School of Bot. Med. Anne Buchalski Carolyn Sweers Bonnie Morton Joyce Heckman Chris Schimmoeller Marilyn Stoughton Judy VanderBloomen
- Pam Montgomery Donna Merrill Michael McGuffin Doug & Barbara Flack Joan Donaldson Garima Fairfax Phyllis Braun Sharon Bean Constance Ferry Rosemary Gladstar

Musings from the Farm

by Paul Strauss, Sanctuary Steward

March

March 1-11 First weedings of the herb beds and garden are mostly of dead nettles and ground ivy. The profuse flowering of the dead nettles serves as a vauable early forage for the bees. It is 75° on the 9th and 10th. Daffodils are out, coltsfoot is flowering, trout lilly, pink woodland carpet and spring

beauties are popping up. On the 11th we get snow. The ups & downs of March. I feel good to get a bite of nettle stings; it is somehow invigorating. I find the first tick.

March 12-24 The goldenseal is up under its winter blanket of leaves. Slippery elm have some mature seeds. The trillium are up. The soft round fuzziness of paw paw buds. The deer love eating the fibrous leaves of yucca. Maybe it is really deer dental floss. Blue Cohosh is up and flowering. Find some bloodroot flowering and a few with seed

pods. "So Early" are the operative words in the woods this day.

March 25-31 Wild grapes start running when cut. Candian Goose is on her island nest. Fertilize the berries. Some goldenseal flowers out. Native American plum blooms a haze of white with the aura of honeybees and the sweet smell of spring. Goldfinches are now in their finest color array.



Mayapple photo by Deb Soule

"An "



Beehives at the Sanctuary

Aah to live amongst the redbuds and dogwoods. It's when you feel the smallest – humbled, that you feel the most alive.



April 1-11: This is the first year I've noticed deer nipping the thickly planted beds of black cohosh. A riot of

spring beauties, tens of thousands in the newly cleared woodlands. First butterflies appearing. The multilingual songs of the mockingbirds proclaiming spring's arrival. Plant Button Bush, a favorite source of nectar to so many insects and food for many wetland bird species.

April 12-22: The ginseng is up under the leaf litter. The carnation scent of autumn olive. Trillium flowering. Eat first morels. The sassafras flowers are lit up like little gold bulbs the afternoon's lowering sun. Dig white oak

seedlings for the Giveaway. The flowering of yellow trout lily, rockcress, fire pink phlox, larkspur, and cranesbill. The poke pokes up. The great beech trees flowering. Weed the garlic.

April 23-30: Plant out yellowwood trees, red mulberry and sweet birch. Collect slippery elm seed. Find honeybees working the showy orchis in the main holler. Plant aralia spinosa and asparagus. Find a Pileated Woodpecker nest and witness a squirrel eating slippery elm seeds. Hocking College comes out for a spring foraging weekend class. The whipoorwhill starts its mating call. Jack-in-the-pulpit, mayapple, spiderwort, baneberry and cucumber magnolia blooming. See the strikingly beautiful scarlet taninger moving through the hollers. This is the worst tent caterpillar year in memory.





Watch a water snake catch a blue gill in front of the cabin. The bluegill was four times the size of the snake's head and involved in its nesting activities. It looked so big and was flopping around but the snake held fast and slowly pulled it under the cabin to somehow swallow.

May 1-12: Count Goldenseal flowers in the test plots. My kitchen doorway is flooded by the sweet scent of Lily of the Valley. Indigo Buntings are everywhere and the hummers are back. Sweet Cicely, Wild Ginger. Daisy, Fleabane, Blackberry, and of course our old nemesis, multiflora rose, all blooming. Too many deer.

May 13-21: Young Fringe Trees (Old Man's Beard) are fully blooming. From a distance they are a mist of white. We have our first above 98° days. Valerian, yarrow, blue-eyed grasses, red & white clover, angelica, yellow pond lily, iris versicolor, sweet flag, woodland skullcap, black cohosh & honeysuckle are flowering. Start laying the limestone steps behind the yurt.

May 22-31: Do a 50% goldenseal harvest in goldenseal test plots. I have never seen such a heavy flowering of Tulip Poplar, its flower cups overflowing with nectar, so thick & profuse you can dip your finger into the flower for a syrupy treat. It should make the honeybees happy. The Sanctuary has the pleasure of having wonderful teachers come in the first 3 weekends of the month. Dennis McKenna, Steven Foster, and Steven Brunner & Trishewa.



In a field of wheat I see the humorous vision of turkey heads floating through the field, their bodies hidden by the wheat. A new bug has invaded the county, the locust leaf miner, which is defoliating all of the black locust trees.

June 1-12: Wild quinine, feverfew, mock orange, echinacea paradoxa & purpurea, venus' looking glass, and persimmon trees all flowering. Make propolis extract. Put the locust posts in for the new shadehouse to propagate at risk woodland herbs. The rich musty smell of corn pollen is welcome to my nose.

June 13-20: The Chinese chestnuts' distinct rank smell permeates the orchard. A sunflower is looking in the kitchen window. Harvest some early garlic. Make Mullein/Garlic Ear Oil.

June 21-30: The peak for the stunning flowering display of the Pleurisy Root, attracting so many types of butterflies, moths, and bees. Gooseberry delight. Harvest early new potatoes. Watch the hummingbird-like sphinx moth work the monarda. Plant raised seed beds with American Chestnuts for the UpS Spring Giveaway. Two weeks of learning and joy for Kathy's Sassafras Kid's Camp. Ahh to be 13 again.

Plant Passions The farm is the Canvas Sweat Shove & Hose Paintbrushes. Fields & Woods Medicine Chest Seeds as possibilties





The cool ponds in July are so rare & refreshing. In the past years the ponds would be hot by now. It is such a perfect summer. One to be remembered & appreciated, a millenial summer.

Dog Violet Fairy

July 1-10: The great American Prairie in full flower on the farm, a buzz of nectar feeding & seed gatherers. Liatris, Echinacea, Pleurisy root, the Royal Catch fly, White baptisia, the Milkweeds, Culver's Root. Bumble bees get so drunk on Monarda nectar, they can't make it home in the evening and can be petted like a dog. Build the first simple bridges for the medicine trail. Gather and clean goldenseal seed. Haul out & saw up more downed logs from the July '99 tormado. Slippery Elm, walnut, ash, maple, cherry, red oak.

July 11-22: Corn, cucumbers & tomatoes pumping. Flowering Virginia Creeper is an important pollen source for the bees. Deer eat more Ginseng tops. Plant Pleurisy root. Plant more Iris. There are never enough.

July 23-31: Weed whip the nettles so I will have young shoots in a few weeks for eating and medicine. The hard task of putting down (mercy killing) a mortally injured doe that has been struck by an automobile. I have had to do this with so many different animals over the years and it never gets easier. Could the flowering of Lobelia cardinalis be the reddest red?



PLANTING THE FUTURE Saving our Medicinal Herbs

Edited by Rosemary Gladstar & Pamela Hirsch Photos by Martin Wall

Addressing one of the most urgent issues for environmentalists, America's most respected and well-known herbalist share in-depth information on preserving 30 popular at-risk herbs.

Contributors include: Mark Blumenthal, Richo Cech, Ryan Drum, Steven Foster, Cascade Anderson Geller, James Green, Christopher Hobbs, David Hoffmann, Kathi Keville, Brigitte Mars, Susun Weed, David Winston, Jane Bothwell, and many others.

- Color photos of 30 medicinal plants and explains how to use and grow them
- Mail order resources for hard-to-find seeds
- Suggestions for making eco-friendly purchases and using other herbs with similar actions as alternatives

Planting the Future shows us how land stewardship, habitat protection, and sustainable cultivation are of critical importance to ensure an abundant renewable supply of medicinal plants for future generations. The authors share their extensive experience with using and growing these popular herbs, and include suggestions for creating your own private herbal sanctuary. Learn about other medicinal herbs that provide the same benefits as at-risk plants, yet exist in plentiful amounts. Make your herbal purchases a vote for sustainability.

320 pages, paperback \$22.95 (Canada, \$35.95) All author royalties will be donated to United Plant Savers.

Please send check or money order (plus \$2.50 S/H) to: United Plant Savers PO Box 98, East Barre, VT 05649



UpS has available colorful, informative shelf talkers for placement in retail herb outlets. Designed to fit snugly on the shelf near the store's herbal displays, the shelf talker will alert customers of the work of UpS.

The shelf talkers are available free-of-charge, but we need your help to get them into the stores. To obtain shelf talkers for your local herb and natural food stores, contact Nancy Scarzello in the UpS office. Thanks!!!

UpS Conferences

As part of our effort to educate people about the cultivation & preservation of our native medicinal plants, UpS hosts a variety of inspring conferences throughout the country.

Please note that the teachers at these conferences generously donate their time and that all proceeds from these events go directly to support the work of UpS.

PLANTING THE FUTURE

The Cultivation & Preservation of Native Medicinal Herbs

Sat., March 17, 2001 in Encinitas, California

~ at Quail Botanical Gardens ~

~ a sanctuary of rare, threatened & endangered plant species and urban retreat ~

Topics include: Cultivation of at-risk medicinal herbs • Plant Walks Using Herbs as Medicine • Ecological herbalism; what it is & how we can participate Biodiversity & Bioregional Herbalism • Seed Saving • Sustainable Herbal Practices

Presenters include: Christopher Hobbs, Rosemary Gladstar, Amanda McQuade, Richo Cech, Pam Montgomery, Steven Foster, Ed Smith, James Green, Ethan Russo, M.D., Timothy Phillips, Michael McGuffin, Dennis Shamand, Scott Murry, John Finch, and other herbalists.

Cost is \$50 if you pre-register by Feb. 17th; \$60 at the door. To register or for information contact Greg or Gail at 760-726-1204, email: eorganic@znet.com

WILD & LOCAL NATIVES

The Cultivation & Preservation of Native Medicinal Herbs

May 4-6, 2001 in Linden, Virginia

~ at Indian Pipe Outdoor Technical School ~

~ an educational center for ethnobotanical studies ~

Join with local and national teachers as we dig deep and learn the mysteries of meadows, the labor of prairies, the ease of medicine making and the texture and finesse of planting woodland gems.

Presenters include: Rosemary Gladstar, Paul Strauss, Richard Liebmann, Kat Harrison, Peter Heus, Marion Lobestein, Kathleen Maier, Susan Leopold, Teresa Boardwine & others.

Cost is \$230 (UpS members \$195); \$20 early registration discount if you pre-register by March 5th For info, contact Dawn Story at Dreamtime Center for Herbal Studies; tel: 540-675-1122 email: drmtime@shentel.ne, or visit www.dreamtimeherbschool.com for registration information

APPALACHIAN HERB GATHERING

Growing, Conserving, and Using Our Native Plants

A regional community-building event offering a wide range of topics pertaining to native medicinal plants of Appalachia.

> June 23-24, 2001 in Meigs County, Ohio ~at United Plant Savers' Botanical Sanctuary ~

Hosted by: United Plant Savers and Rural Action in collaboration with the National Center for the Preservation of Medicinal Herbs, Ohio County Extension Agency, Ohio Ecological Farm and Food Association, Innovative Farmers of Ohio, Ohio State University's Organic Farm & Food Education and Research Center, and Resilience.

Teachers include: Harvey Lyle, Tim Sayre, Paul Strauss, Maureen Rodgers, Tim Blakely, George Vaughn, Erica Renaud, Mark Cohen, Hank Huggins, Cindy Parker, Rosemary Gladstar, Christopher Hobbs, Steven Foster, Diane Don Carlos, Rebecca Woods.

SEMINAR TRACKS:

Farm Development and Management

- Water-How to find it
- Pond Building
- Beekeeping
- Equipment
- Marketing your Product

Sustainable Forestry Management

- How to cope with Alien Invasive Species
- Native Prairie Restoration
- Sustainable Wild Harvesting

Field Track

- National Center Tour
- Walking Panel with botanist, herbalist, and conservationist
- Apothecary Tour
- Edible foods

Growing Herbs

- Cultivation of Root Crops
- Growing Medicinal Mushrooms
- Research Updates
- Permaculture
- Greenhouse design

Using Herbs

- Cindy Parker-Tea Time
- Tis Mal Crow- Muskogee Tradition
- Mo Burns
- Rosemary Gladstar
- Christopher Hobbs
- Steven Foster

Cost: \$120 for full weekend registration, including tent space and meals. \$30 per day — classes only For more information contact Diane Don Carlos: diane.don_carlos@frontierherb.com Phone: (740) 742 4401

Windflower Fairu



Patty Shea's Plant-Rescue operation has grown from a one-woman show to a large, dedicated organization: *The Wildflower Rescue Committee of Cranbrook*. It's 100 or more members descend on a construction site and dig up plants in danger. They do not, however, indulge in guerilla operations. "We always get written permission to take plants", Shae stresses.

Habitat destruction is driving many species to the point of no return. Working to prevent the loss of habitat is important, but if you can't stop progress, saving the wildflowers from a construction site may be the next best thing. You can transplant them to public gardens, school yards, or other appropriate sites.

Before you run to the nearest vacant lot and start digging, keep in mind that wildflower rescue works best when

BEGIN YOUR PLANNING WITH THIS CHECKLIST:

- Always get written permission from the landowner. Don't just yank plants and run. Most developers will welcome your help.
- Know and obey state and local laws that protect rare plants.
- Make placards for your dashboard, so neighbors or police don't wonder about vehicles parked at vacant lots.
- **Plan as far ahead as possible.** Pay attention to media or word-of-mouth reports about new development so you can get the word out easily.
- Raise awareness about endangered plants by informing the local media of your activities.
- Carry along empty cardboard boxes or other containers to transport plants.

Printed on recycled paper with soy ink