



Includes
Nutritional
Information

EAT *the* **WEEDS**



**A Forager's Guide to Identifying
and Harvesting 274 Wild Foods**



written by
"Green Deane" Jordan

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Introduction

How This Book is Organized

This book is organized alphabetically, by each plant's common name. Some accounts pertain to a genus of plants, whereas others focus on individual species. Because common names can vary, we've included an index of scientific names, as well as a separate index for common names (see page 342).

How to Use This Book

Start by reviewing the front matter carefully, especially the advice on foraging safety, toxic plants, and etiquette. Consult the chart (pages 16–43) to learn about each plant's main benefits. When you're identifying plants, always be sure to use multiple resources—an expert's advice is a great option—and keep in mind that plant appearances can differ greatly, depending on conditions. When it comes to safety, we've highlighted the known safety issues for each plant, to the best of our knowledge. Nonetheless, be advised that many of the plants in this book are understudied and the scientific literature is incomplete on the subject. Enjoy wild plants, but do so deliberately and prudently. You're responsible for your own safety.

The Many Benefits of Foraging

Foraging offers, besides sustaining calories, different flavors, textures, and compliments of nutrients. Foraging provides plants that haven't been genetically modified or treated with chemicals as is most food today. There's no chemist in the kitchen other than Mother Nature herself. Foraging is a productive and enjoyable way to get out in nature.

Geographic Range of the Book

This book primarily focuses on the Americas, and North America in particular. Many of the edible plants in this book originate from Eurasia and were introduced by the settlers, colonizers, and explorers of the last 500 years, affecting everywhere from India, China, and Australia to the Americas and Africa. Thus, in a larger sense, many of the species in this book are found around the world. (Some of the plants can even be found in the Arctic Circle.)

Botany

What of botany? Many people don't like to learn the botanical/scientific names of plants, which is understandable. Humanity got along for a long time without botanists or nutritionists. Your mother said,

Green Deane's Notable Nutrients

		VITAMINS		
COMMON NAME	TAXONOMIC NAME	VITAMIN A	VITAMIN B1 (THIAMINE)	VITAMIN B2 (RIBOFLAVIN)
Acorn	<i>Quercus</i> spp.			
Agave	<i>Agave americana</i>			
Alligator weed	<i>Alternanthera philoxeroides</i>			
Amaranth	<i>Amaranthus</i> spp.			
American beautyberry	<i>Callicarpa americana</i>			
American Black Nightshade	<i>Solanum americanum</i>			
American lotus	<i>Nelumbo lutea</i>			
Aronia (Black Chokeberry)	<i>Aronia melanocarpa</i>			
Aspen and poplar	<i>Populus deltoides</i> , <i>Populus tremuloides</i>	✓		
Australian pine	<i>Casuarina equisetifolia</i>			
Bacopa (water hyssop)	<i>Bacopa monnieri</i>			
Balloon vine	<i>Cardiospermum halicacabum</i>			
Barnyard grass	<i>Echinochloa crus-galli</i>			
Basswood	<i>Tilia americana</i>			
Beach Orach	<i>Atriplex cristata</i> , <i>Atriplex nuttallii</i>	✓		
Beech	<i>Fagus grandifolia</i>			✓
Begonia	<i>Begonia</i> spp.			
Betony	<i>Stachys</i> spp.			
Birch	<i>Betula</i> spp.			
Bird pepper	<i>Capsicum annuum</i> var. <i>glabriusculum</i>			
Biscuitroot	<i>Lomatium</i> spp.			
Bitter cress	<i>Cardamine</i> spp.			
Bitter Lettuce	<i>Launaea intybacea</i>			
Blackberry	<i>Rubus</i> spp.			
Black medic	<i>Medicago lupulina</i>			
Black walnut	<i>Juglans nigra</i>			
Bladder wrack	<i>Fucus vesiculosus</i>			
Blueberry	<i>Vaccinium</i> spp.	✓		
Bulrush	<i>Schoenoplectiella</i> spp., <i>Schoenoplectus</i> spp., <i>Scirpus</i> spp.			
Bunchberry	<i>Cornus canadensis</i>			
Burdock	<i>Arctium minus</i> , <i>Arctium lappa</i> , <i>Arctium tomentosum</i>			
Burnweed	<i>Erechtites hieraciifolius</i>			
Butternut	<i>Juglans cinerea</i>			

VITAMINS							TRACE MINERALS									
VITAMIN B3 (NIACIN)	VITAMIN B6 (PYRIDOXINE)	VITAMIN B9 (FOLIC ACID)	VITAMIN B12	VITAMIN C	VITAMIN E	VITAMIN K	BORON	CALCIUM	CHOLINE	COPPER	IODINE	IRON	LITHIUM	MAGNESIUM	MANGANESE	PHOSPHORUS
		✓														✓
								✓						✓		✓
				✓												
														✓		✓
												✓				
								✓						✓		✓
					✓			✓						✓		
				✓				✓						✓		
								✓				✓			✓	
							✓			✓						✓
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	✓									✓					✓	
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		✓						✓	✓					✓		✓
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								✓						✓		✓

the **WEEDS**

Acorn

Quercus spp.

NOTABLE NUTRIENTS OR USES Protein, carbohydrates, folic acid, potassium, phosphorus

SAFETY NOTES Toxic to dogs, horses, cattle, sheep, and goats. For humans, acorns must be leached of tannins first.

NATIVE STATUS About 90 native oak species in the US



Green Deane's Itemized Plant Profile

IDENTIFICATION Small nuts with caps that grow on oak trees. Acorns with large and rough-textured caps tend to be more bitter than others.

TIME OF YEAR Usually late summer and fall; oak trees do not produce every year.

RANGE Generally the eastern half of the US and along the West Coast

ENVIRONMENT Oaks inhabit all kinds of environments.

METHOD OF PREPARATION Roasted for snacks, ground into flour

Green Deane's Notes

Acorns are familiar to many, but they are a wild food that offers a rare abundance of calories and fat (about 500 calories and 30 grams of fat in just a handful).

Oak trees begin to produce acorns at around 20 years old, but usually the first full crop won't happen until the tree is about 50. The crop from an oak is called a *mast* (from the Middle English word *mete*, which means food and is also the root of our word *meat*). How many acorns a tree produces is directly related

Nutrition Notes

White oak, per 100 grams

500 calories, 30 g fat, 50 g carbohydrates, 4.6 g protein, 3.45 g fiber

Vitamin B9 (folic acid)	539 mg
Calcium	41 mg
Magnesium	62 mg
Phosphorus	79 mg

Nutrition Notes

Acorn flour, per 100 grams

501 calories, 30.17 g fat, 54.65 g carbohydrates, 4.9 g protein, 4 g fiber

Vitamin A	51 IU
Vitamin B1 (thiamine)	0.15 mg
Vitamin B2 (riboflavin)	0.15 mg
Vitamin B3 (niacin)	2.38 mg
Vitamin B5 (pantothenic acid)	0.93 mg
Vitamin B6 (pyridoxine)	0.68 mg
Vitamin B9 (folic acid)	114 mg
Calcium	43 mg
Copper	0.61 mg
Iron	1.21 mg
Magnesium	110 mg
Phosphorus	103 mg
Potassium	712 mg
Zinc	0.64 mg

to the amount of rain it receives in spring the year the tree masts; the more rain, the more acorns. The average 100-year-old oak produces about 2,200 acorns per season. Only 1 in 10,000 acorns will become a tree.

Oaks fall into two main categories: white and red. White oaks fruit in one season, and red oaks—a group that includes black oaks—fruit after two seasons and can have more bitter acorns than white oak varieties. The leaves of white oaks have round lobes and no prickles at the ends, while those of red oaks have prickles. They also have scales on the caps of the acorns, hair inside the caps, and a sheath around the nut.

The first steps in preparing acorns for consumption are separating and drying them. Put your acorns in a bowl or pot of water and remove those that float (most of the ones that float have an edible weevil grub in them). Then dry the ones that sink on a baking sheet in a preheated oven at 150°F or lower for

Aronia (Black Chokeberry)

Aronia melanocarpa

NOTABLE NUTRIENTS OR USES Potassium, calcium, magnesium, anthocyanins, tocopherols

SAFETY NOTES No known safety issues

NATIVE STATUS Native to eastern Canada and the eastern US



Nutrition Notes

Per 100 grams

47 calories, 0 g fat, 43 g carbohydrates, 7 g protein, 7 g fiber

Vitamin B1 (thiamine)	18 mcg
Vitamin B2 (riboflavin)	20 mcg
Vitamin B3 (niacin)	300 mcg
Vitamin B5 (pantothenic acid)	280 mcg
Vitamin B6 (pyridoxine)	28 mcg
Vitamin B9 (folic acid)	20 mcg
Vitamin C	20 mg
Vitamin E (tocopherols)	1.7 mg
Vitamin K	24 mcg
Calcium	32 mg
Iron	0.93 mg
Magnesium	16 mg
Potassium	218 mg
Sodium	2.6 mg
Zinc	0.14 mg

Green Deane's Itemized Plant Profile

IDENTIFICATION Multistemmed shrub, loses leaves in winter, 4–8 feet tall, can form dense colonies. Leaves alternate, 1–3 inches long and 0.75–2 inches wide; oval but narrower at the base than near the tip; fine, regular teeth. Top surface of leaves dark green, upper surface of the midrib shiny with dark glands, lower surface lighter green, both sides

nonhairy. Flowers have five white petals, many pink stamens. Berries up to half an inch in diameter, one to five seeds each, glossy and black when ripe, hang down in clusters of 30 or so from red stems.

TIME OF YEAR Flowers open mid-May, fruits usually mature by August

RANGE New England south to Georgia and reportedly North Florida; west to Texas

ENVIRONMENT Hardy to -40°F . Moderately tolerant of shade; prefers moist acid soils from bogs, swamps, low wooded areas and clearings as well as dry rocky slopes, bluffs, and cliffs. Also found beside roads and power line rights-of-way. Tolerant of salt spray, drought, and soil compaction.

METHOD OF PREPARATION Can be eaten raw but bitter. Better made into jams and jellies, juice, or wine; also used in baked goods.

Green Deane's Notes

It's a long way from the mountains of Maine down the Appalachian Trail to the mountains of western North Carolina. It's also a long way from one's 20s to one's 60s. These distances revealed themselves when I noticed a plant while hiking in the Smokies.

It was familiar but not familiar, a wrong plant in the wrong place, I thought. But it was the right plant in the right place, kind of. The problem was I had 40 years' absence from the species. Helping me sort out the mystery was, edible-plant expert, storyteller, author, Doug Elliott, longtime resident of North Carolina. "Sounds like an Aronia," he said, "with the unfortunate name of chokeberry." He got it right.

What confounded me is that the Aronia is generally thought of as a northern plant and quite common in my native state of Maine. But North Carolina does not have the deep freeze of New England winters—unless one goes up. Going up 1,000 feet can take you north about 700 miles in climate. Thus, the northern genus *Aronia* creeps down the spine of the

sap but rather the bark, heated in an oven with little air (similar to making charcoal). The resin is solid at 65°F, moldable at 85°F, a stiff putty at 105°F, a soft sticky putty at 135°F, and boils at 352°F. When it cools, it's waterproof and not brittle.

Bird Pepper

Capsicum annuum var. *glabriusculum*

NOTABLE NUTRIENTS OR USES Antioxidants, capsaicin, vitamin C, beta-carotene, vitamin E

SAFETY NOTES As with other hot peppers, wash your hands after handling.

NATIVE STATUS Native



Green Deane's Itemized Plant Profile

IDENTIFICATION Shrub 3–10 feet tall with ovate to ovate-lanceolate pointed leaves 0.5–2 inches long (though may be as long as 5 inches). Flowers white, yellow-green, or lavender; five-lobed; to 0.5 inch wide. Fruit round, conical, or elongated and pointed, 0.5–1 inch long, may change from white to yellow then purple to red, nearly hollow, a few small seeds, very pungent.

TIME OF YEAR Seasonal in northern climes, year-round in warmer areas

RANGE Arizona east to Florida and then up the coast to New York and Connecticut

ENVIRONMENT Hummocks, waste places, cultivated ground

METHOD OF PREPARATION Fruit cooked in the same way as grocery-store peppers; leaves steamed

Green Deane's Notes

Research shows these peppers, also called wild chiles, have more than twice

Nutrition Notes

Per 100 grams

30 calories, 0 g fat, 0 g cholesterol, 7 g carbohydrates, 1.5 g protein, 1.1 g fiber, total fat 0.2 g, 0 g saturated fat

Vitamin A	1180 IU
B1	0.09 mg
B2	0.09 mg
B3	0.95 mg
B5	0.061 mg
B6	0.278 mg
B9	0 mg
Folate	23 mg
Vitamin C	242 mg
Vitamin E	0 mg
Vitamin K	14.3 mg
	phylloquinone
Calcium	18 mg
Copper	0.174 mg
Iron	1.2 mg
Magnesium	25 mg
Manganese	0,237 mg
Phosphorus	46 mg
Potassium	340 mg
Selenium	0.5 mg
Zinc	0.3 mg
Choline	11.1 mg

The above data pertains to the very similar *Capsicum annuum*.

the antioxidant content of habanero peppers, with 36 mg per gram dry weight. Their nutrients also include vitamin C (as ascorbic acid), beta-carotene, vitamin E, and some B vitamins.

The plant's ripe fruit is used as seasoning, and its leaves can be cooked as greens. Bird peppers have been used for a very long time by Indigenous cultures in the US, and in Africa their fruits or leaves are eaten as an antidote to poisonous fish.

Bird peppers get their flavor from capsaicin, an alkylamide, and range between 50,000 and 100,000 units (with an average of 60,000) on the Scoville heat scale—hotter than Tabasco, serrano, or jalapeño peppers.

Biscuitroot

Lomatium spp.

NOTABLE NUTRIENTS OR USES Carbohydrates, potassium, calcium, sodium, magnesium

Black Walnut

Juglans nigra

NOTABLE NUTRIENTS OR USES Lipids, potassium, phosphorus, magnesium, calcium

SAFETY NOTES See preparation notes below to avoid mold contamination.

NATIVE STATUS Native



Nutrition Notes

Per 100 grams

619 calories, 59.3 g fat, 9.6 g carbohydrates, 24 g protein, 6.8 g fiber

Vitamin A	40 IU
Vitamin B1 (thiamine)	0.057 mg
Vitamin B2 (riboflavin)	0.13 mg
Vitamin B3 (niacin)	0.47 mg
Vitamin B5 (pantothenic acid)	1.66 mg
Vitamin B6 (pyridoxine)	0.583 mg
Vitamin B9 (folic acid)	31 mcg
Vitamin C	1.7 mg
Vitamin E	2.08 mg
Vitamin K	2.7 mcg
Calcium	61 mg
Copper	1.36 mg
Iron	3.12 mg
Magnesium	201 mg
Manganese	3.896 mg
Phosphorus	513 mg
Potassium	523 mg
Selenium	17 mcg
Sodium	2 mg
Zinc	3.37

Green Deane's Itemized Plant Profile

IDENTIFICATION Large tree with compound leaves, alternately arranged on the branches. Each leaf has 15–23 leaflets; terminal leaf often missing; leaf surface dull with a slightly hairy texture on underside.

TIME OF YEAR Late summer to fall. Husk changes from solid green to yellowish green. Nuts are ripe when they show indentation if you press hull with your thumb.

RANGE New England west to Minnesota and south to the Gulf of Mexico

ENVIRONMENT Moist, well-drained soil; along streams, in mixed forests. Method of preparation. Eat raw once hulled and cured

Green Deane's Notes

I didn't see my first black walnut tree until middle age. It so happened that the two places where I've lived the longest, Maine and Florida, are just beyond both ends of the tree's range. I lived a little north of the range in southern Maine and half a state south of the range in central Florida.

However, I visited Alexandria, Virginia, for an extended time in the '90s, and one day while jogging along a park trail I saw a black walnut tree covered with green mana. I went back later that same day and carried home all that I could (and did so repeatedly for several weeks). Then came the hard work. Walnuts are delicious, but they don't give up easily.

The walnuts most people buy are *Juglans regia*, the "royal walnut." They are also called English walnuts because English merchants popularized them, though they're grown in the Balkans and from Greece to southwest China. The North American walnut, which is smaller and tougher to crack, is *Juglans nigra*. Black walnut trees are valued more for their wood than their walnuts, but they are the most common walnut among foragers. The nutmeat is crunchy and spicy, and it is used in baking, ice cream, and candy.

Round and 2 inches in diameter, black walnuts are usually ready for harvest in late summer or early fall. Try to get nuts off the tree rather than the ground (you can take good ones from the ground). Two pounds of walnuts off the tree will produce about a cup of nutmeat.

To process walnuts, first do what you do with acorns: Put them in water and

From a melon's point of view, a grove is a great place to be: There's food, water, sun, and other weeds are kept out. Where I see Citron Melons a lot is in cattle and horse pastures. That tells me either the melons there are too bitter for the livestock to eat or the animals have enough other food.

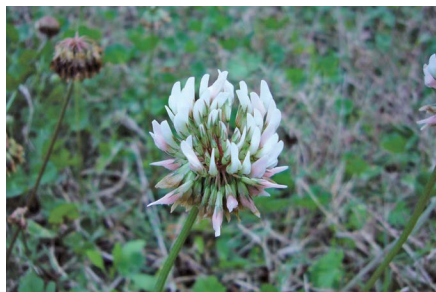
Clover

Trifolium spp.

NOTABLE NUTRIENTS OR USES Protein, fiber, calcium, vitamin C, iron

SAFETY NOTES A lot of people are allergic to clover, so try small amounts at first. Red clover (*Trifolium pratense*) contains chemicals that act like estrogen, so women who are pregnant or nursing should consume with caution. Exercise caution if heavy iron consumption could be a health problem. Do not cook, dry, or eat clover that isn't completely fresh (see more below), and don't mistake clover for sweet clover (*Melilotus* spp.), which can be dangerous. Also, one study found toxic cyanogenic glycosides in clover under certain growing conditions, so use caution, generally.

NATIVE STATUS Native to Eurasia but naturalized all over the world



Green Deane's Itemized Plant Profile

IDENTIFICATION Evergreen perennial growing to a half foot tall, famous for its three leaves; blossoms can be white, pink, or red depending on the species

TIME OF YEAR Usually summer and fall

RANGE All over the US and Canada

ENVIRONMENT Likes sunny areas and moist soils; usually found in lawns

METHOD OF PREPARATION Leaves raw or cooked as a potherb, the younger the better. Dried seedpods and flowers ground into powder and used as a flour, young flowers in salads. Cooked root edible. Dried flowers also used to make herbal tea.

Nutrition Notes: *T. repens*

Per 100 grams

31 calories, 0.4 g fat, 3.54 g carbohydrates, 3.54 g (2.5 g*) protein, 2.7 g fiber

Vitamin C (as ascorbic acid)	10.6 mg
Calcium	33 mg (150 mg*)
Copper	0.2 mg*
Iron	0.85 mg (39.3 mg*)
Magnesium	29 mg*
Manganese	0.7 mg*
Phosphorus	46 mg*
Potassium	270 mg*
Sodium	4 mg (24 mg*)
Zinc	0.4 mg*

*Mature plant vs. sprouts

Nutrition Notes: *T. pratense*

Per 100 grams

37 calories, 4.2 g fat, 37 g carbohydrates, 5 g protein, fiber NA

Vitamin A	4430 IU (1330 mcg RE)
Vitamin C	71 mg
Calcium	64 mg
Copper	0.2 mg
Iron	16.3 mg
Magnesium	9 mg
Manganese	1.5 mg
Phosphorus	4 mg
Potassium	70 mg
Zinc	2.5 mg

Green Deane's Notes

Clover is so common that it's easy to ignore. Its human use, however, is limited and comes with some precautions (see Safety Notes). What's more, the older the plant gets, the tougher it is—young and tender is key. Generally speaking, white clover (*Trifolium repens*) is more nutritious than red clover (*T. pratense*)—the former has significantly more minerals than the latter, but less protein. (See boxes for more nutritional information.)

Secondly, never . . . did you see that word? Never ferment and eat any part of fermented clover, especially Sweet Clovers (*Melilotus alba*, *M. indica*, and *M. officinalis*). You want your clover either completely fresh or completely, quickly dried, never in between. If not quickly dried, clover can produce a mold that inhibits blood clotting. That's where the rat killer Warfarin and the medicine Coumadin originated.

As for the blossoms, you likewise want young and fresh whether they're white or pink or red, though white clover is the best-tasting of them all. In addition to using dried flowers for tea, you can pan-roast the blossoms until they're nice and crispy and/or grind them into flour. The leaves are another matter: Young ones are digestible raw in small amounts (half a cup or so). Older leaves should be cooked, but I think you'd have to be hungry to eat them—they're a famine/survival food.

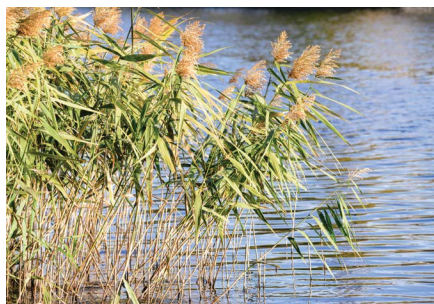
Common Reed

Phragmites australis

NOTABLE NUTRIENTS OR USES Vitamin C, calcium, phosphorus, magnesium, vitamin A

SAFETY NOTES No known safety issues

NATIVE STATUS Introduced



Green Deane's Itemized Plant Profile

IDENTIFICATION As FloridaGrasses.org says, "Enormous cane often seen rising with a plumose inflorescence from wet ditches." Ligule just 1 mm; leaf blades not auriculate; spikelets unawned (no bristles or needle-like growths); internodes

nonhairy. Looks similar to *Arundo* (Giant Reed) but usually has narrower leaves; shorter, thinner stems; and no hair on certain parts. More widespread in North America than *Arundo*.

TIME OF YEAR Year-round in warm climates, seasonal farther north. Flowers early or midsummer into fall. Seeds shed in the winter, can float in water up to four months.

RANGE Throughout the US except Alaska

ENVIRONMENT Wet areas, ditches, roadsides, median strips, railroad tracks, marshes, riverbanks, lakeshores, tidal wetlands

METHOD OF PREPARATION pickled, boiled, ground, and maybe more

Nutrition Notes

Per 100 grams

Leaves: 3.5 g fat, 63.7 g carbohydrates, 17.1 g protein, 27.4 g fiber
 Stems: 0.8 g fat, 90 g carbohydrates, 4.8 g protein, 41.2 g fiber
 Reed: 415 calories, 2.1 g fat, 72.7 g carbohydrates, 10.6 g protein, 31.9 g, fiber

Vitamin A	5.15 mg
Vitamin C	91–200 mg
Calcium	480 mg
Magnesium	130 mg
Phosphorus	60 mg

Green Deane's Notes

Some 30 years ago I pondered the identity of a very tall grass in a former marlpit in Port Orange, Florida, a few miles south of Daytona Beach. You might think there can't be that many tall grasses in the area, but you'd be surprised in a state with thousands of nonnative species. Furthermore, grasses can be maddening to identify, moreso even than mushrooms. They have a descriptive language all their own, experts are few, and the books on them sometimes cost thousands of dollars. It took me three tries to get it right. First I thought an *Arundinaria* (a bamboo genus), then an *Arundo*. I settled on *Phragmites australis*, the common reed, which can grow more than an inch and a half a day.

While the identification was difficult, it turned out to be a good find because the

common reed has many uses as food, and for making everything from jewelry to boats. It's been around a long time, say the experts. They found evidence of it in 40,000-year-old sloth dung (now *there's* a topic for cocktail-party chitchat), and it's been eaten by humans for ages as well. The common reed is perhaps more versatile than cattails—it's been harvested for roof thatching and for making splints, pen tips, hunting spears, arrows, rope, mats, baskets, pipes, clothing, and medicine. Children have attached mesquite branches to common reed stems to catch small fish and crabs.

Among the edible parts of *Phragmites australis* are the young shoots, which can be boiled or pickled and eaten like bamboo sprouts, and the leaves, which when partly unfolded can be treated as a pot-herb. A confection is made by taking a sugary gum out of the stems and shaping it into balls. The reed's rhizomes are sometimes cooked like potatoes, and its high-fiber grain is nutritious—if you're able to extract it from its hull to use. In Japan, young leaves are dried, ground, and mixed with cereal flour to make dumplings.

Usually, all the common reeds in a stand are clones. Each individual clone reed will likely live five to eight years; the stand itself may reach 1,000 years old. A stand provides shelter for various creatures but is not a major food source for any.

Coral Bean

Erythrina herbacea

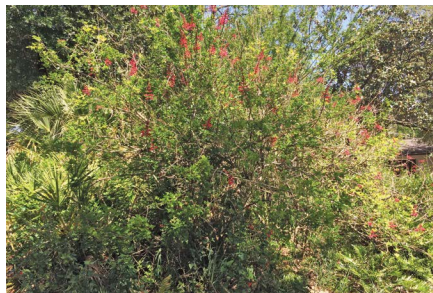
NOTABLE NUTRIENTS OR USES No nutritional data available; antioxidants

SAFETY NOTES Seeds are toxic. All parts may contain harmful alkaloids. See notes below for how to prepare before eating.

NATIVE STATUS Native

Green Deane's Itemized Plant Profile

IDENTIFICATION Herbaceous bush 3–16 feet, can survive a lot of trimming. Three uterus-shaped leaves on each petiole; leaves lost in winter in cooler areas. Stems and leaves have small curved prickles.



Bright-red flowers on spikes, may remain in dry areas after leaves have fallen.

TIME OF YEAR Flowers in early spring to early summer, depending on latitude; young leaves throughout the growing season

RANGE Southern tier of the United States, up the East Coast to Maryland, and up the West Coast

ENVIRONMENT Sandy woods, hardwood hummocks, dry tidewater areas, roadsides. Usually an understory plant among other bushes, but can grow in full sun.

METHOD OF PREPARATION Boil blossoms

Green Deane's Notes

There is a tradeoff with the (Eastern) coral bean. Brilliantly colored, it is very easy to identify. Certain parts are edible, and, according to a Japanese study, it contains at least five antioxidants. But you have to harvest carefully: Some of it is toxic, narcotic, and hallucinogenic.

The flowers are edible when boiled. I boil mine for 15 minutes in plenty of water. They turn green and limp and reduce in size, so collect a lot. The flavor is mild, like young spinach. Traditionally, the cooked blossoms are mixed with scrambled eggs. I do eat a raw red flower once in a while, but just one. To be safe, don't eat the blossoms raw—although a few authorities have said they are edible.

Do not eat the seeds—they are poisonous. Toxic alkaloids may be found in other parts of the plant and can have an effect similar to curare's. Most people know the coral bean—which also goes by the common name red cardinal—as a landscape plant; under cultivation and

ideal conditions, it can reach 25 feet. It's easy to spot in season, though in the wild it is rarely more than a spindly bush.

One interesting thing about the plant is that it always turns its leaves toward the sun. It is beloved by hummingbirds. One of the quickest ways to get hummingbirds to your yard is to grow a coral bean—just keep kids away from the seeds. The Eastern Coral Bean may also be called the Cherokee Bean, after the tribe that used a decoction of its root for ailments such as kidney and urinary blockage.

There are more than 110 *Erythrina* species. Many of the plants in the genus are planted as street and park trees. Some can grow to 100 feet high and are used as shade trees for coffee or cacao. The Western Coral Bean, *Erythrina flabelliformis*, has fan-shaped leaves and edible flowers. Other known edibles in the genus include *E. americana*, *E. berteroana*, *E. fusca*, *E. rubrinervia*, and *E. variegata*.

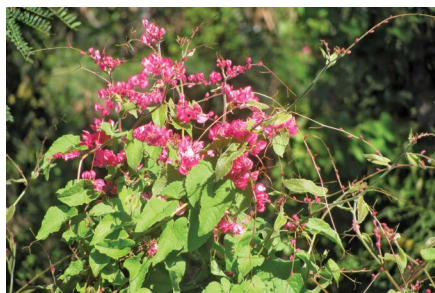
Coral Vine

Antigonon leptopus

NOTABLE NUTRIENTS OR USES No nutritional information available; protein, oil

SAFETY NOTES No known safety issues

NATIVE STATUS Introduced



Green Deane's Itemized Plant Profile

IDENTIFICATION Twining vine that can reach 40 feet in length and clings and climbs with curled tendrils, evergreen in some climates. Leaves 1–3 inches or longer, heart-shaped, crinkly-edged, pronounced veins on underside, reticulated (wrinkled-looking) on top. Flowers arranged in panicles, pink or white, on

branch terminals, bloom from spring to fall or even year-round.

TIME OF YEAR Roots whenever large enough to harvest; blossoms when in season (nearly year-round in warm areas, until frost elsewhere)

RANGE Mexico and Central America; the US southeast and Gulf Coast

ENVIRONMENT Flourishes with good water and plenty of sun but tolerates poor soil and a variety of light conditions. Likes pinewoods, fence rows, yards, disturbed ground, even marshy areas, though nearly any environment will do.

METHOD OF PREPARATION Roots boiled or roasted, seeds roasted and ground, flowers and leaves fried

Green Deane's Notes

Antigonon leptopus inspires local names everywhere it grows: Tallahassee Vine, Honolulu Creeper, Christmas Island Crawler, among many others. It's also called the Rose of Montana, but it does not grow in that state. While hungry people might view it as a reliable food source, in most countries where bellies are full, it's considered an invasive weed.

Lest you think the coral vine is just another pretty invader, it's medicinal as well, with antioxidant, anti-inflammatory, and analgesic properties. An extract of its leaves and flowers inhibits lipid peroxidation—activity by cell-damaging free radicals. A tea made from the leaves and blossoms is consumed to relieve symptoms of colds and flu, and research indicates that the plant may be useful in reducing blood-sugar levels.

As food, you can roast or boil the roots—they are nutty (some say you can eat the roots raw, but I do not know firsthand). Leaves and flowers can be battered and fried, and are good served with pasta. The fried flowers are also mixed into omelets. Seeds can be roasted, winnowed (they winnow better after roasting), then ground and used like flour.

Related to the sea grape and in the buckwheat family, the coral vine is well equipped to proliferate. It produces a

huge amount of seeds, which float. The fast-growing plant can also reproduce via its edible roots, which get larger with age. Climbing by tendrils, the coral vine tends to smother what it ascends. At least 40% of the vine's flowers are open at any given time.

Crabgrass

Digitaria sanguinalis

NOTABLE NUTRIENTS OR USES Potassium, magnesium, calcium, protein

SAFETY NOTES Possible allergen. Avoid any crabgrass with purple or black mold on it.

NATIVE STATUS Introduced



Green Deane's Itemized Plant Profile

IDENTIFICATION A mat-forming grass, rooting at the nodes. Leaves alternate, long, grasslike, some parallel veins, pointed tip, toothless. Flowers tiny, stalkless, flattened along branches.

TIME OF YEAR Seeds in fall, best after a frost

ENVIRONMENT Sandy soil, poorly tended lawns, gardens, old fields, roadsides, waste places

METHOD OF PREPARATION Stripped-off seeds can be toasted and ground into flour or used as a grain.

Green Deane's Notes

It would be difficult among the “decapitated grass” crowd—lawn owners—to find a more hated foe than crabgrass. Millions of dollars are spent annually trying to chemically choke it to death; uncounted hours are passed on hands and knees yanking it from yards; air is

Nutrition Notes

Per 100 grams

170 calories, 0.5 g fat, 29 g carbohydrates, 7% protein, 1–2% fiber

Vitamin B1 (thiamine)	0.17 mg
Vitamin B2 (riboflavin)	0.22 mg
Vitamin B3 (niacin)	1.15 mg
Iron	12 mg
Magnesium	70 mg
Potassium	260 mg
Sodium	30 mg
Zinc	1.5 mg

polluted with crabgrass-inspired profanity. Even the name suggests a loathsome disease: Your lawn has crabs. My solution? Eat the weeds.

Lawn folks hate crabgrass for two main reasons: It does not look like other common lawn grasses, so a patch of it stands out, and it does not grow consistently, so a lawn with crabgrass can look spotty. Adding to the manicured mania is the fact crabgrass can produce some 150,000 seeds per plant. Nature plays hardball: Lawn grass is weak, crabgrass is strong, and if folks didn't constantly fight crabgrass it would win. For that matter, trees would win over grass, but grass has enlisted humans in its war against trees, so we keep the trees at bay as well. Lawn grass survives because it has human allies.

After crabgrass was introduced in the United States in the mid 19th century, the newly formed Department of Agriculture aimed to make it a main agricultural crop. It was a regular part of the diet of immigrants from eastern Europe, who called it kasha (or kasza), now the name of an edible grain in the buckwheat family. But once corn was developed as an agricultural crop, growers realized corn and wheat could be grown just as easily and was worth more money than Crabgrass. That began its transition from valued food to hated weed.

While we try to get rid of crabgrass in America, in parts of Africa, types known as fonio (*Digitaria exilis* and *Digitaria iburua*) are a staple grain. Crabgrass is not only nutritious but one of

the world's fastest-growing cereals, producing edible seeds in six to eight weeks and as much as a whopping 17 tons per acre. It grows well in dry areas with poor soil, and fantastically well in watered lawns.

If you want to use crabgrass seeds in food, husking the small grains can be time-consuming. One way is pounding them in a mortar with sand (it helps pop them open), then separating the grains and sand. Another method, which produces a toasted grain, is "popping" seeds over a flame (continually tossing them in a pan) and then pounding them. You can even buy a crabgrass-husking machine. Untoasted, it can be used like rice. Crabgrass seeds (toasted) can be made into a flour, couscous, and porridge or fermented for use in beer making. Now that's a label I'd like to see: Crabgrass Beer.

Cranberry

Vaccinium macrocarpon

NOTABLE NUTRIENTS OR USES Lutein and zeaxanthin, choline, potassium, calcium, vitamin A

SAFETY NOTES No known safety issues

NATIVE STATUS Native



Green Deane's Itemized Plant Profile

IDENTIFICATION Low-growing mat, usually less than 1 foot high. Small, glossy, leathery leaves, bronzy in spring and dark green in summer; white to pink, tube-shaped, four-petaled flowers in clusters, followed by a dark-red fruit.

TIME OF YEAR Fruit ripens September or October

RANGE northern portions of North America

ENVIRONMENT Likes sandy soil, bogs, dry land

METHOD OF PREPARATION Many, including as sauce, wine, and ingredient. Cranberries can also be eaten fresh on the trail, but they are sour.

Nutrition Notes

Per 100 grams

39 calories, 0.4 g fat, 9.4 g carbohydrates, 4 g sugar, 0.3 g protein, 3.8 g fiber

Vitamin A	3 RE
Vitamin B1 (thiamine)	0.01 mg
Vitamin B2 (riboflavin)	0.02 mg
Vitamin B3 (niacin)	0.1 mg
Vitamin B6 (pyridoxine)	0.06
Vitamin B9 (folic acid)	1 mcg
Vitamin C	14 mg
Vitamin E	1.32 mg
Calcium	8–24 mg
Copper	0.056–1 mg
Iron	0.3 mg
Magnesium	6–11 mg
Manganese	1 mg
Phosphorus	11–23 mg
Potassium	80 mg
Selenium	0.1 mcg
Sodium	0.6 mg
Zinc	0.09–1 mg
Beta-carotene	38 mcg
Choline	5.5 mg
Lutein and zeaxanthin	91 mcg

Green Deane's Notes

Fresh or frozen, cranberries are sour. There's a reason for that: They contain tannins, which can make food taste sour or bitter, but which have antioxidant activity. Cranberries also are less than 4% sugar. The plant doesn't need to attract animals to spread its seeds around. Instead, it has a small hollow spot in the middle that makes it float. Flowing water does the job of distribution.

In my Maine youth, I was surprised to discover cranberries don't have to grow in water: One day, I found a fresh patch atop a small hill, near a pond but watered by rain. We think cranberries grow in water because of commercial operations at harvesting time, which are flooded to

cover the plants and protect them from cold weather.

Cranberries are such a common commercial crop—approaching a million tons annually—that few people think of collecting them in the wild. Then again, they are popular because they're usually heavily sweetened however they're served.

One of my favorite uses of cranberries is adding them, along with chopped walnuts, to wild rice—the character of the cranberries makes it a delightful dish. I also make cranberry wine. Fresh cranberries can be frozen and will keep more than a year (I have several pounds in my freezer). They can be used directly in recipes without thawing. Juice, muffins, and, of course, sauce for the Thanksgiving table are some of the many ways to use cranberries.

Vaccinium macrocarpon is the most common cranberry in the northeastern United States. *Vaccinium oxycoccos* is another US species. Cranberries are cousins to blueberries, huckleberries, and bilberries, which are all *Vaccinium*. All berries with a crown are nonpoisonous, but they are not all palatable. Closely related to the cranberry is the lingonberry, *Vaccinium vitis-idaea*, also called the mountain cranberry or Low Bush Cranberry and collected in northern countries including Canada and Scandinavia.

Creeping Cucumber

Melothria pendula

NOTABLE NUTRIENTS OR USES Calcium, sodium, magnesium, protein, vitamin C

SAFETY NOTES See below for details. Only harvest unripe fruit.

NATIVE STATUS Native

Green Deane's Itemized Plant Profile

IDENTIFICATION Perennial vine with slender, climbing stems and curled tendrils; resembles English ivy but more delicate; can reach many feet long and



Nutrition Notes

Per 100 grams

calories NA, 8% fat, 56.8% carbohydrates, 12.6% protein, 16.3% fiber, 8.7% lipids

Vitamin C	4.76 mg
Calcium	58.4 mg
Magnesium	9.12 mg
Sodium	35.5 mg

form mats or spiderweb-like drapes. Leaves dark green, about 2 inches long, with three to five lobes. Flowers small, yellow, five-petaled, notched at end. Fruit looks like doll-size watermelon, green and mottled when unripe, black when ripe, whitish seeds.

TIME OF YEAR Fruit in summer in northern climes, all year in southern areas if no frost

RANGE Pennsylvania to Florida, west to Nebraska and Texas

ENVIRONMENT They grow in spots ranging from moist to occasionally watered: along edges of marshes, sandy roadsides, low woods, parking lot shrubs, almost any fence.

METHOD OF PREPARATION Raw or pickled when young and light green

Green Deane's Notes

If you search the internet for *Melothria pendula*, you will find two contradicting comments—that it's edible and that it's toxic. The state of North Carolina calls it mildly toxic, the state of Florida does not; one person says it is harmless, another says it is harmful. What they say in their own way is that at some point *Melothria pendula* becomes the mother of all laxatives.

I've eaten a lot of light- to medium-green *M. pendula* at a time with no problem and have known others to eat them as well. Many people put them in salads as they would cherry or grape tomatoes, which are similar in size to the cukes.

The fruit of *M. pendula* (also called the Guadeloupe Cucumber or Mouse Cucumber) is only about a half inch long and looks like a perfect, smooth miniature watermelon. But it has a definite cucumber aroma and taste, sometimes a slightly tart cucumber taste. The cukes are crisp when light green, but they grow mushy when dark green and start to taste and smell bad at that stage.

So where does the problem lie? Probably with ripening: The little cucumbers turn black as they ripen, and that's a good sign to leave them alone. I suspect that if the seeds are purgative, it's when they're mature, which is what happens to another gourd, *Momordica charantia* (bitter melon). Another cuke close in size and use to *M. pendula* but with no reports of laxative issues when ripe is *Melothria scabra*, or the Mexican Sour Gherkin. Its seeds can be ordered from a variety of sellers online.

Crowfoot Grass

Dactyloctenium aegyptium

NOTABLE NUTRIENTS OR USES Protein, carbohydrates, potassium, sulfur, amino acids (especially glutamic acid)

SAFETY NOTES Grass (not seeds) toxic in hot weather

NATIVE STATUS Introduced



Green Deane's Itemized Plant Profile

IDENTIFICATION Spreading, creeping, mat-forming grass, with roots at lower

Nutrition Notes

Per 100 grams

345 calories, 1.9 g fat, 68 g carbohydrates, 15.7 g protein, 2.8 g fiber

Calcium	1.07 mg
Copper	0.7 mg
Iron	1.21 mg
Manganese	0.22 mg
Phosphorus	460 mg
Potassium	0.39 mg
Sodium	0.02 mg
Zinc	0.69 mg
Aluminum	1.72 mg
Sulfur	0.18 mg

nodes. The seed head has five to seven (but as few as two) spikelets at the tip of the stem—in an arrangement that looks like a crow's foot.

TIME OF YEAR Fall, when the top separates easily from the stem

RANGE Maine to California

ENVIRONMENT Heavy, damp soil to sandy, arid soil

METHOD OF PREPARATION Used like any grain, but because of its size and texture best made into flour

Green Deane's Notes

I call this helicopter grass because the “fingers” of the flower are on the same plane, like a helicopter's rotor. The USDA calls it Egyptian grass but also lists crowfoot grass and Beach Wiregrass as common names. Though there are other members of the *Dactyloctenium* genus, *D. aegyptium* has no lookalikes, so it should be easy to spot.

Do not eat the grass itself—in hot weather it can be toxic. You eat the seeds, which grow on the underside of the fingers, like teeth on a comb. Each plant can have 60,000 seeds. In season, it's not difficult to collect enough for a side dish for one or two people, or larger amounts for storage. They're about the size of grains of table salt, golden in color, and have the texture of sand. But tasty, edible sand.

Crowfoot grass is an extremely versatile grain and can be cooked in water, roasted, milled, even fermented. I even

eat the ripe seeds raw on the trail. I like to mix them with some water and olive oil, cook for about 10 minutes (until the water is evaporated), and enjoy. Raw or cooked, the grain has a similar flavor and texture. I suspect it is not a popular food because of its texture, which, of course, is significantly changed if milled into flour. That is its best use by far, in my opinion. A traditional East African bread made with the flour is called *kisra*.

The only problem I've had with crowfoot grass is dirt getting in with the grains, since the plant is only around a foot high. To harvest, I simply tug at the tan seed heads—if they let go, they are ready (if not, leave them because green seeds are not ready to eat). The easiest way to remove the hulls is vigorously rubbing the seed heads in your hands over a colander, which is held over a window screen or other type of mesh screen over a bowl. The screen catches most of the chaff; the seeds drop through. Pick out any remaining chaff and gently blow away the rest, leaving a pile of gold-orange grain. You can accumulate a couple of quarts an hour this way.

Currant

Ribes spp. (nonthorny)

NOTABLE NUTRIENTS OR USES Vitamin C, potassium, phosphorus, calcium, magnesium

SAFETY NOTES No known safety issues

NATIVE STATUS Native



Green Deane's Itemized Plant Profile

IDENTIFICATION Shrubs rarely more than 6 feet high. Leaves remind one of maple leaves, usually with scalloped edges, three

Nutrition Notes

Per 100 grams

56 calories, 0.2 g fat, 12.1–13.8 g carbohydrates, 7.36 g sugar, 1.4 g protein, 4.3 g fiber

Vitamin A	2 mcg RAE or 42 IU
Vitamin B1 (thiamine)	0.04 mg
Vitamin B2 (riboflavin)	0.05 mg
Vitamin B3 (niacin)	0.1 mg
Vitamin B5 (pantothenic acid)	0.064 mg
Vitamin B6 (pyridoxine)	0.07 mg
Vitamin C	41 mg
Vitamin E	0.1 mg
Calcium	33 mg
Copper	0.11 mg
Iron	1 mg
Magnesium	13 mg
Manganese	0.2 mg
Phosphorus	23–44 mg
Potassium	257–275 mg
Selenium	0.6 mcg
Sodium	2–20 mg
Zinc	0.23 mg
Lutein and zeaxanthin	47 mcg

to five lobes, veins that fan out. Crushed leaves can have a skunklike, citrusy, or spicy aroma. Flowers white, yellow, or red. Berries grow in clusters, green when unripe, then black and blue or red and gold, with stripes up and down.

TIME OF YEAR Fragrant flowers April to June, ripe fruit early fall

RANGE All of North America except Alabama

ENVIRONMENT Full sun, afternoon shade in warm climates, well-drained medium to heavy soils

METHOD OF PREPARATION Anything you might do with a berry

Green Deane's Notes

Currants and gooseberries comprise the *Ribes* genus, and there are a lot of species of each. Gooseberries (see page 142) are heavily armed with spines and prickles; currants are not. Therein lies a great distinction and less pain.

Names of the 50 or so species of currants are often changing. Wild currants like

cooler weather, so you find them above the Mason-Dixon line more than below it. But they grow in almost every state. I used to see them around abandoned houses in rural areas of Maine.

Some wild currants are tart and others sweet, some strong-smelling and others not. Eat currants right after picking, or make preserves, jam, or jelly with them. Underripe berries have more pectin. You can also use currants for pie filling, garnish, or as a salad addition.

Indigenous people consumed at least 40 varieties of currants. They were eaten fresh, cooked, or dried—though dried ones would usually not be stored for long but eaten that season. Natives also mixed currants with other berries to produce certain flavors or made wine from them.

Dandelion

Taraxacum officinale

NOTABLE NUTRIENTS OR USES Potassium, vitamin A, vitamin C, vitamin E; lutein and zeaxanthin

SAFETY NOTES No known safety issues

NATIVE STATUS Introduced



Green Deane's Itemized Plant Profile

IDENTIFICATION Leaves up to a foot long, deeply indented (like large sawteeth), always growing rosette at the base, last lobe pointing away from the plant. The familiar flower is made up of hundreds of little rays and turns into a powder puff.

TIME OF YEAR Spring and summer in northern climes, fall and winter in warm climates

Nutrition Notes

Greens, per 100 grams

45 calories, 0.7 g fat, 9.2 g carbohydrates, 2.7 g protein, 3.5 g fiber

Vitamin A	508 RAE
Vitamin B1 (thiamine)	0.19 mg
Vitamin B2 (riboflavin)	0.26 mg
Vitamin B3 (niacin)	0.81 mg
Vitamin B5 (pantothenic acid)	0.08 mg
Vitamin B6 (pyridoxine)	0.25 mg
Vitamin B9 (folic acid)	27 mcg
Vitamin C	35 mg
Vitamin E	3.44 mg
Vitamin K	0.78 mg
Calcium	187 mg
Iron	3.1 mg
Magnesium	36 mg
Manganese	0.34 mg
Phosphorus	66 mg
Potassium	397 mg
Selenium	0.5 mg
Sodium	76 mg
Zinc	0.41 mg
Beta-carotene	5.85 mg
Choline	35.3 mg
Lutein and zeaxanthin	13.61 mg

RANGE native to Eurasia, but introduced globally

ENVIRONMENT Lawns, meadows, fields, disturbed areas

METHOD OF PREPARATION Leaves boiled, roots boiled or roasted, flowers fried or used to make wine

Green Deane's Notes

Dandelions and I go back a long ways, 65 years or so. When I was a child in Maine, my mother would hand me a knife and a large paper shopping bag and send me out to find dandelions for supper, not only in our yard but in the pastures across the street. My stepfather liked the bitter greens, so I picked them often. Wild strawberries and checkerberries grew in the same pastures in the spring. Heck, I was full of dessert before I came home for supper.

In those days, dandelions were free greens and flavoring for coffee—their nutrition wasn't really on anyone's mind. But the plant is anti-inflammatory and a rich source of vitamins and

was in flower. Then one day the bright-pink blossoms caught my eye.

Cercis canadensis are in the pea family, among the first trees to bloom in spring before they leaf out. They also produce large numbers of multi-seeded pods from spring to late summer, depending on location.

Eat the buds raw, pickled (a caper substitute), or fried or baked. On the flowers, the light-colored upper part is sweet, the darker lower part is bitter. Some people prefer to remove the lower part before eating. The flowers as well as young seedpods fry nicely. You can also pickle the flowers or eat them raw—they have a slightly tart taste, are a pleasant addition to salads, and can be used as a condiment. The leaves are edible raw or boiled. Branches and stems of the Eastern Redbud have been used for basketry.

Think of the plant as the First Foragers' Health Food Store. Redbud seeds are about one quarter protein (and just under one tenth fat). Both seeds and flowers are high in antioxidants—including anthocyanins, a group of red and purple pigments classified as flavonoids—as well as linoleic and alpha-linolenic acid, which are omega-3 essential fatty acids.

Elderberry

Sambucus canadensis,
Sambucus racemosa

NOTABLE NUTRIENTS OR USES Vitamin A, potassium, phosphorus, calcium, vitamin C

SAFETY NOTES Avoid raw elderberries or eat only a few at a time because of risk of cyanide poisoning, which is virtually eliminated when berries are cooked or processed.

NATIVE STATUS Native

Green Deane's Itemized Plant Profile

IDENTIFICATION *Sambucus canadensis*, shrub or small tree, woody stem; five-lobed white flowers in clusters, opposite, toothed leaves pinnately compound, five to nine pairs; round, glossy black berries

an eighth of an inch wide. Sheds a lot of hollow stems that insects live in. Looks similar to water hemlock, but that plant produces seeds, not berries, and has raised veins. (Elderberry leaf veins are less pronounced.)

TIME OF YEAR Throughout the year in warm climates, late spring and summer where cooler

RANGE Most of North America aside from western states/provinces

ENVIRONMENT Roadsides, thickets, damp areas, low hummocks, marshes, canal banks

METHOD OF PREPARATION Cooked or used as an ingredient; eaten raw only minimally



Nutrition Notes

Berries, per 100 grams

72 calories, 0.5 g fat, 16.5 g carbohydrates, 2.6 g protein, 4.8 g fiber

Vitamin A	870 IU
Vitamin B1 (thiamine)	0.07 mg
Vitamin B2 (riboflavin)	0.01 mg
Vitamin B3 (niacin)	0.5 mg
Vitamin C	37–52 mg
Calcium	35–55 mg
Iron	1.6 mg
Magnesium	50 mg
Phosphorus	45–57 mg
Potassium	300–406 mg

Green Deane's Notes

Elderberries are almost user-friendly. You can make jam, jelly, pie, syrup, schnapps, brandy, and wine with them. The flowers are edible and can be used in pancakes and muffins or just dipped in batter and fried. They also make a nice tea. Elderflower water is used in

Flowering Rush

Butomus umbellatus

NOTABLE NUTRIENTS OR USES No nutritional data available; starch, protein, fat

SAFETY NOTES See preparation information below.

NATIVE STATUS Introduced



Green Deane's Itemized Plant Profile

IDENTIFICATION Flowering aquatic plant to 5 feet tall that grows in two rows from rhizomes. Resembles the bulrush when not flowering but without tuft of seeds. Leaves are thin, straight, sword-shaped, pointed, up to 40 inches long, untoothed, parallel-veined. Flowers grow on tall, cylindrical stalks in umbrella-like clusters of 20–50. Each has three large pale-pink or white petals and three lower, smaller sepals of same color. Blossoms have six pistils that are simple, whorled, united at the base. Fruit is a many-seeded capsule. Base of flower stalk can have bulbils (tiny bulbs) and rhizome rootlets.

TIME OF YEAR Flowers from June to September

RANGE Northern half of the US

ENVIRONMENT Mud, ponds, canals, ditches, edges of still or slowly moving water no more than 10 feet deep. Will not grow in shade.

METHOD OF PREPARATION Roots boiled, roasted, or dried for grinding; don't eat roots raw.

Green Deane's Notes

Let's start with the fact that the flowering rush—also called the Water Gladiolus—

is not a rush. Botanists have had a hard time classifying the flowering rush because it's monotypic, the only member of its genus. When in doubt, botanists make a plant monotypic. With this one, there is debate about whether that's accurate: Some argue the North American version has subtle differences from the plant found in Eurasia, so they should be two species, *Butomus umbellatus* and *Butomus junceus*; others say the differences don't exist.

While the flowering rush used to be a common food in Russia, where food was scarce, in the contemporary world it is considered an awful invasive. Moving water, ice, humans, and muskrats help spread the plant, the latter because they build their mounds with it and eat it in winter.

The roots (rhizomes) of the flowering rush are 60% starch. Five kilos (11 pounds) of dried roots will produce about one kilo (2.2 pounds) of flour. To make it, start by removing the bulbils and rootlets, then peeling the rhizomes. They can be boiled—changing water helps—or roasted or dried before being ground. Make sure the roots are not acrid after drying or roasting. The ground roots can be used as a thickener or added to flour. We have scant nutritional data on the plant besides its high starch content, though it's reportedly 14% protein and 4% fat.

Forsythia

Forsythia spp.

NOTABLE NUTRIENTS OR USES No nutritional data available; antioxidants

SAFETY NOTES Exercise caution with the leaves. They should be eaten only when very young and may contain unhealthy substances.

NATIVE STATUS Introduced

Green Deane's Itemized Plant Profile

IDENTIFICATION A shrub to 8 feet high eventually turning woody with gray bark. Dense foliage. Narrow, dark-green

Green Deane's Itemized Plant Profile

IDENTIFICATION Deciduous stout tree or shrub, with bumpy branches and grayish brown or black bark, fissured with small lenticels. Leaves bundled on young branches, pinnate, with short or no stems, ovate, sometimes hairy. Flowers pale yellow, four petals, slightly fragrant.

TIME OF YEAR Fall

RANGE Native to Asia; planted in temperate areas

ENVIRONMENT Full sun, rich soil, will tolerate some variation

METHOD OF PREPARATION Boiling shoots and leaves

Green Deane's Notes

Koelreuteria paniculata is in a genus named for 18th-century German botanist Joseph Gottlieb Koelreuter, who was noted for two things: his ingenious experiments in hybridization and his complaint that professors of botany didn't make much money. The golden rain tree was introduced to the West from China by a Jesuit missionary in 1747 reached America by 1809, when Thomas Jefferson germinated seeds sent to him by a French friend. While it has since become a popular landscape tree worldwide, it is also an invasive species in many places.

You can boil the tender young shoots and leaves. They should *not* be eaten raw because they have traces of cyanide, which are reduced in cooking. The leaves and shoots also have some antioxidant properties. All reports say the seeds are edible if roasted, but I'd be careful about consuming them—they contain erucic acid, which is also found in unrefined canola oil. (Erucic acid is toxic in large amounts, or when consumed continuously, but is also a component of Lorenzo's oil, the famed experimental treatment for the neuromuscular disorder adrenoleukodystrophy.) Outside of food use, the tree's yellow flowers produce a yellow dye and an eye wash, and its mature leaves produce a black dye.

Goldenrod

Solidago spp.

NOTABLE NUTRIENTS OR USES No nutritional information available; vitamin C, rutin, quercetin

SAFETY NOTES If picking leaves for tea, make sure they are fungus-free: A toxic fungus that grows on some leaves can poison tea made from them. All leaves are toxic to sheep.

NATIVE STATUS Native to North and South America and western Europe



Green Deane's Itemized Plant Profile

IDENTIFICATION Perennial 2–3 feet tall, with yellow flowers in dense, branched clusters at the tops of hairy stems. Dark-green alternate leaves, single-veined, pointed tips, stemless, 1–4 inches long, narrowing toward top.

TIME OF YEAR Summer to fall in northern climes, year-round where warmer

RANGE Found in most of North America, except western states/provinces

ENVIRONMENT Prefers sandy soil but grows well in fertile soil. Also grows in clay. Full sun or semi-shade

METHOD OF PREPARATION Dry leaves and flowers to make tea.

Green Deane's Notes

After the Boston Tea Party of 1773, the colonists turned to goldenrod tea as a homegrown alternative to what came from England—and not just any goldenrod, but *Solidago odora*. It became known as “Liberty tea” and was even exported to China.

P. virginiana. Common names include husk tomato or Husk Cherry, strawberry tomato, winter cherry, poha, Cape gooseberry, and Golden Berry.

Yellow or gold ground-cherries are edible raw or made into pies and preserves (pectin has to be added to make jelly or jam). Several websites say the red variety, *P. alkekengi* (Chinese Lantern), is edible, and it has been described as both tasteless and bitter. I might taste red ground-cherries, but I do not recommend eating them and have found few credible references to their edibility.

The fruit can fall from the ground-cherry plant before it is ripe. It will ripen off the plant—that may take a week or two, even longer—but like a tomato, it will not improve in sweetness off the plant. You can store ground-cherries for several weeks if left in their husks, which should not be eaten.

Ground Ivy

Glechoma hederacea

NOTABLE NUTRIENTS OR USES Protein, vitamin C, vitamin A

SAFETY NOTES Toxic to horses

NATIVE STATUS Introduced



Nutrition Notes

Per 100 grams

6.1 g protein

Vitamin A 73 RE

Vitamin C 55 mg

Green Deane's Itemized Plant Profile

IDENTIFICATION Creeping perennial. Flowers blue-violet, less than half an

inch long, usually in clusters of three in the axil (between the stem and petiole). Opposite leaves, nearly round or kidney-shaped, long stems, scalloped edges, large rounded teeth. Stems square, trailing, rooting at the nodes, mostly hairless but occasionally with short, stiff backward-pointing hairs. Each flower produces four seeds—tiny, brown egg-shaped nutlets.

TIME OF YEAR Blooms late spring/early summer in cooler climates, spring and fall in warmer areas

RANGE All states but Arizona, Nevada, and New Mexico

ENVIRONMENT Thrives in moist but not saturated shaded areas, and will tolerate sun. Grasslands, wooded areas, disturbed ground, around dams. In lawns and around buildings where grass is mown

METHOD OF PREPARATION Young leaves and shoots cooked like a green; fresh or dried leaves used for tea

Green Deane's Notes

Most of the time when someone mentions ground ivy, the comment is something like, “How do I get rid of the &^%#@ stuff?” It’s a prime weed in turfgrass and landscaping. If you desire a well-behaved English-type garden, ground ivy will drive you insane. While it may be small, it’s the botanical bull in the china shop: It doesn’t take over, it takes command. Ground ivy is difficult to permanently remove from any soil other than very loose, and because it roots at the nodes, it survives mowing.

Once known as *Nepeta glechoma* and *Nepeta hederacea* (*Nepeta* is the catnip genus), ground ivy is often misidentified as common mallow (*Malva neglecta*), which has a round stem, whereas ground ivy’s is square. It is somewhat similar in appearance to Ground Henbit (*Lamium amplexicaule*), Purple Dead Nettle (*Lamium purpureum*), and Persian Speedwell (*Veronica persica*), but none of those three have creeping stems that root at the nodes.

Common names include Alehoof, cat’s foot, field balm, run-away-robin,

has also been called Fleabane because the leaves put in pets' beds help get rid of fleas (it also has another botanical name, *Erigeron canadensis*). Native Americans made tea from horseweed leaves to treat dysentery and tea from the boiled roots for menstrual cramps. It's a diuretic and can make you sweat.

As for food, young leafy seedlings and leaves can be eaten after boiling. Dried leaves can be used as a seasoning, with a flavor similar to tarragon.

Huckleberry

Gaylussacia spp.

NOTABLE NUTRIENTS OR USES Calcium, vitamin C

SAFETY NOTES No known safety issues

NATIVE STATUS Native



Nutrition Notes:

Alaskan huckleberries

Per 100 grams

37 calories, 0.1 g fat, 8.7 g carbohydrates, 0.4 g protein, 3.0 g fiber

Vitamin A	79 IU
Vitamin B1 (thiamine)	0.01 mg
Vitamin B2 (riboflavin)	0.03 mg
Vitamin B3 (niacin)	0.3 mg
Vitamin C	2.8 mg
Calcium	15 mg
Iron	0.3 mg
Sodium	10 mg

Green Deane's Itemized Plant Profile

IDENTIFICATION Colony-forming shrub. *Gaylussacia baccata*, 1–2 feet high; *G. dumosa*, seldom taller than 2 feet; *G. frondosa*, to about 5 feet; *G. mosieri*, to 3 feet. Look for microscopic gold dots on undersides

of leaves. Flowers bell-shaped; fruit black, purplish black, or blue berries. *G. baccata* may have few or many branches, *G. frondosa* often scraggly, *G. mosieri* distinguished by long hairs on twigs.

TIME OF YEAR Blooms in late May, fruit in summer

RANGE North America

ENVIRONMENT In northern areas, bogs and wet sandy soils; in southern areas, dry or moist sands

METHOD OF PREPARATION Use like blueberries.

Green Deane's Notes

The huckleberry looks like a black blueberry and has exactly 10 seeds inside. There are blue huckleberries, but they, too, have 10 seeds. Blueberries are true berries, whereas huckleberries are drupes—although most drupes have only one seed (like an olive), not 10. The stony seeds make huckleberries crunchier. Huckleberries are often sweeter than blueberries, and they have more calcium. Both are in the heath family, which has few toxic species.

In addition to *Gaylussacia baccata*, huckleberry varieties include *G. dumosa*, *G. frondosa*, and *G. mosieri*. Huckleberries are a favorite food of bears—they constitute up to one third of the grizzly bear's diet—and bears will travel great distances to find them. So if you go huckleberry picking, be aware that you may be in some bear's favorite patch.

Native tribes made rakes of salmon backbones to strip huckleberries off bushes. They dried the berries in the sun or smoked them, then mashed them into cakes and wrapped those in leaves or bark for storage. You can do anything with huckleberries that you would with blueberries: pie, jam, etc. And, of course, just pick and eat them fresh.

Hyacinth

Muscari spp.

NOTABLE NUTRIENTS OR USES Vitamin C, calcium, phosphorus, carbohydrates

Juneberry

Amelanchier arborea,
Amelanchier alnifolia

NOTABLE NUTRIENTS OR USES Fiber, calcium, phosphorus, magnesium

SAFETY NOTES No known safety issues

NATIVE STATUS Native



Nutrition Notes: *A. alnifolia*

Per 100 grams

99 calories, 1.2 g fat, 21.4 g carbohydrates, 0.7 g protein, 6.4 g fiber

Vitamin A	86 RE
Vitamin B3 (niacin)	0.3 mg
Vitamin C	10.9 mg
Calcium	69 mg
Copper	0.4 mg
Iron	0.5 mg
Magnesium	26 mg
Manganese	2.2 mg
Phosphorus	40 mg
Selenium	0.6 mg
Zinc	.4 mg

Green Deane's Itemized Plant Profile

IDENTIFICATION Small tree or large multibranched shrub, 20–50 feet, with rounded crown and arching, spreading branches. Leaves simple, alternate, oblong, 1–3 inches long, serrated, downy underneath, smoother above, silvery-gray and fuzzy when emerging, dark green in summer, yellow to orange to red in fall. Dainty, five-petaled white flowers hang in elegant clusters. Fruit a berry-like pome, pendulous, ripens from green to red to purplish black, with red teardrop-shaped seed.

TIME OF YEAR Flowers bloom and berries ripen in spring.

RANGE *Amelanchier alnifolia*, nationwide

ENVIRONMENT Full sun or light shade and moist, well-drained, acidic soil. Often an understory tree near stream banks.

METHOD OF PREPARATION Fresh, dried, or cooked

Green Deane's Notes

Juneberries are as American as apple pie. More so, in fact. Juneberries are native; cultivated apples are not. When Europeans arrived in the New World, the only apples around were sour crab apples—but there were plenty of palatable Juneberries.

Juneberries are a close relative of apples, not of blueberries, which they resemble in color, shape, and size. They have that name because in many places the fruit ripens in June, usually the first of the new season for those weary of winter fare. Juneberries are also known as serviceberries, and *A. arborea* is sometimes called the sarvis tree. The word “sarvis” may have been an Appalachian pronunciation of “service,” and that word purportedly got attached to the species because in Appalachia it was the only tree blossoming when it came time to bury in the thawed ground of spring those who had died during the winter—to have *services* for them, in other words. Other regional names for the tree are shadbush, shadblow, shadwood (because it bloomed when the shad were running), sugarplum, and wild plum.

Amelanchier arborea is found in the eastern half of United States; its western counterpart is *Amelanchier alnifolia*, aka the Saskatoon Serviceberry. Other *Amelanchier* species that have been used for food include *A. bartramiana*, *A. canadensis*, *A. intermedia*, *A. laevis*, *A. lamarckii*, *A. pallida*, *A. sanguinea*, *A. spicata*, and *A. utahensis*.

Juneberries were an ingredient in pemmican, a staple of northern Native tribes and a main ration for pioneers and traders that was made of powdered meat mixed with fat and dried berries. Today, opinions vary on whether Juneberries are better fresh, dried, or cooked. It

hit with the aquarian crowd. Its alternate name is Blue Water Hyssop.

Steep fresh leaves in hot water for a citrusy tea. You may get even more out of it than a drink: Studies on the plant have indicated it can have “strong antimicrobial effects” and is 9.2% protein.

Lemongrass

Cymbopogon citratus

NOTABLE NUTRIENTS OR USES Manganese, iron, potassium, phosphorus, calcium

SAFETY NOTES No known safety issues

NATIVE STATUS Introduced



Nutrition Notes

Per 100 grams

99 calories, 0.49 g fat, 25.31 g carbohydrates, 1.82 g protein

Vitamin A	6 IU
Vitamin B1 (thiamine)	0.06 mg
Vitamin B2 (riboflavin)	0.14 mg
Vitamin B3 (niacin)	1.10 mg
Vitamin B6 (pyridoxine)	0.08 mg
Vitamin B9 (folic acid)	75 mcg
Vitamin C	2.6 mg
Calcium	65 mg
Copper	0.27 mg
Iron	8.17 mg
Magnesium	60 mg
Manganese	5.22 mg
Phosphorus	101 mg
Potassium	723 mg
Selenium	0.7 mcg
Sodium	6 mg
Zinc	2.23 mg
Beta-carotene	3 mcg

Green Deane's Itemized Plant Profile

IDENTIFICATION Clumping evergreen 2–5 feet high with narrow, sharp-edged

blades of grass that are blue-green or gold. Tiny flowers on stalk are white, cream, or green. Crushed blade has distinct aroma of lemon.

TIME OF YEAR Year-round in warm climates

RANGE Native to India, Sri Lanka, Burma, and Thailand; has escaped cultivated in some warmer states

ENVIRONMENT Prefers moist soil and full sun

METHOD OF PREPARATION Leaves steeped for tea or cooked in soup, etc., for flavor; the stalks are root-like and tough; stalks should be chopped into small pieces and then cooked or made into a paste.

Green Deane's Notes

I've grown two lemongrasses. One I got from an Asian grocery—it had some roots on it, so it was locally grown—and one from a froufrou farmers market. I called one Chinese, and the other was supposedly from India. After watching them for more than 10 years, I think they are the same species. They spread easily in my yard (even getting under a 12-foot driveway): If I don't mow—and I hate to mow—the lemongrass will quickly sprout from underground roots, though it also seeds. The only place I take it out is where it threatens to overshadow my saffron sapling.

Lemongrass, *Cymbopogon citratus*, is best-known for tea or flavoring (yes, it tastes lemony) made from its leaves (blades). But its lower stalks also have culinary uses: chop them up and toss them into stir-fries, or grind them into a paste to use as flavoring. You can freeze or dry lemongrass leaves to use in the future. Dried leaves need to be rehydrated before use.

In 2006 researchers found that lemongrass causes cancer cells to kill themselves, at least in the test tube. It did not affect healthy cells. The study was done on one gram of lemongrass in a cup of hot water. I use a heck of a lot more than that when I make lemongrass tea, so I should be supersafe. I take a full blade (be careful, the edges can cut you) and, starting at the bottom, tie the blade in

not squeak when rubbed, as dogbane leaves do. Also, milkweed leaves grow smaller as you go up the stalk, while dogbane leaves are slightly larger, and a milkweed stalk is hollow but dogbane's is solid.

Miner's Lettuce

Claytonia perfoliata

NOTABLE NUTRIENTS OR USES Vitamin C, potassium, phosphorus, calcium

SAFETY NOTES Avoid collecting it from impaired water sources.

NATIVE STATUS Native



Nutrition Notes

Leaves, per 100 grams

20 calories, 0.3 g fat, 3.9 g carbohydrates, 2.8 g protein, 0.9 g fiber

Vitamin A	109 RE
Vitamin B1 (thiamine)	0.08 mg
Vitamin B2 (riboflavin)	0.13 mg
Vitamin B3 (niacin)	0.2 mg
Vitamin C	29.4 mg
Calcium	52 mg
Iron	2.9 mg
Magnesium	40 mg
Phosphorus	79 mg
Potassium	317 mg
Sodium	18 mg

Green Deane's Itemized Plant Profile

IDENTIFICATION Look for one obvious, round leaf, with a stem through the middle. (Don't think grocery store lettuce, in terms of shape.) White flowers in racemes.

TIME OF YEAR Cool spring weather

RANGE Western United States plus Georgia and New Hampshire

ENVIRONMENT Shady areas with loose, moist soil; tolerates moderate frost

METHOD OF PREPARATION Raw, steamed

Green Deane's Notes

This species is a real foraging find, though you generally find it only in the West. After all, it's named for California's gold rush miners, who ate it for their health.

Claytonia perfoliata used to be in the genus *Montia* and has an older synonymous name, *Montia perfoliata*. It is distantly related to purslane. When those who live in the West see dollarweed for the first time, they think it's related to miner's lettuce. It isn't, but both plants have petiole stems—attached to the middle of the leaf, not the side.

Eaten raw in salad or steamed, miner's lettuce is refreshing: mild, crunchy, and tender. It's also easy to identify—your greatest challenge is making sure it is growing in wholesome water.

Mock (Indian) Strawberry

Potentilla indica

NOTABLE NUTRIENTS OR USES Vitamin C, protein, potassium, phosphorus, calcium

SAFETY NOTES See safety discussion below.

NATIVE STATUS Introduced



Green Deane's Itemized Plant Profile

IDENTIFICATION Low, trailing vine with roots at the nodes. Single flower on long stem, five yellow petals notched at tip, five sepals. Long-stemmed leaves have

Mulberry

Morus spp.

NOTABLE NUTRIENTS OR USES Potassium, calcium, phosphorus, vitamin C, vitamin A

SAFETY NOTES Unripe berries can be toxic. The unripe berries and uncooked leaves can be slightly psychotropic. Some people are allergic to the pollen, and others get dermatitis from the sap.

NATIVE STATUS Native and introduced



Nutrition Notes

Per 100 grams

43 calories, 0.39 g fat, 9.8 g carbohydrates, 1.44 g protein, 1.7 g fiber

Vitamin A	25 IU
Vitamin B1 (thiamine)	0.03 mg
Vitamin B2 (riboflavin)	0.1 mg
Vitamin B3 (niacin)	0.62 mg
Vitamin B6 (pyridoxine)	0.05 mg
Vitamin B9 (folic acid)	6 mcg
Vitamin C	36.4 mg
Vitamin K	7.8 mcg
Calcium	39 mg
Copper	0.6 mg
Iron	1.85 mg
Magnesium	18 mg
Phosphorus	38 mg
Potassium	194 mg
Selenium	0.6 mcg
Sodium	10 mg
Zinc	0.12 mg
Beta-carotene	9 mcg
Lutein and zeaxanthin	136 mcg

Green Deane's Itemized Plant Profile

IDENTIFICATION Tree rarely exceeding 40 feet in height. Leaves alternate, simple, often lobed, toothed on edges. Fruit looks like a long blackberry when ripe, about

an inch long, white when first appears, turns red and then dark purple or black.

TIME OF YEAR Late spring

RANGE Red mulberry: eastern half of the United States; white mulberry: introduced but widespread

ENVIRONMENT Hardwood forests, abandoned farms and fields, roadsides, residential parking lots. Likes moist soil

METHOD OF PREPARATION Fruit raw or as ingredient, young leaves cooked

Green Deane's Notes

I will admit I used to use mulberries to get dates. When they were in season, I would bake mulberry pies and share them at this or that social event. They demonstrated I could find food and find my way around a kitchen. Plus, the mulberries were delicious and healthy.

In my case, the berries were from *Morus rubra*, the red mulberry. There's also the black mulberry, *Morus nigra*, and the Asian or white mulberry, *Morus alba*. The latter is the sole food source for the silkworm, *Bombyx mori*, named after the mulberry genus *Morus*.

You can use mulberries just as you would blueberries, strawberries, or blackberries—in pies and other pastries, muffins, jam, wine, a cordial. They are much like blueberries in flavor. Young leaves of any mulberry species are edible boiled, though they can be tough. Be warned: The berries can stain everything purple. They also have had medical uses, primarily for glucose control.

Mulberry trees grow rapidly and fruit young. One spring I trimmed my mulberry and used its branches as stakes to hold up branches of a fruiting nectarine. The stakes rooted and grew. Not one to get in nature's way, I dug them up and gave them to a friend. They are still flourishing.

The genus name *Morus* has the same origins as the name of the Greek god Moros, who drove mortals to their death. It's where we get the English word "morse." To contemporary Greeks, the mulberry is "mouro," and the Peloponnesian

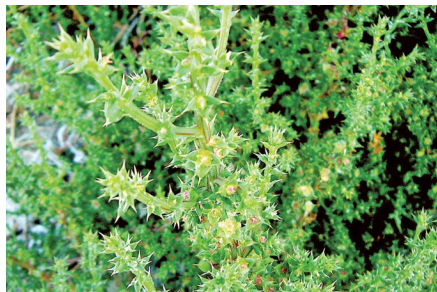
Russian Thistle (Tumbleweed)

Salsola kali ssp. *tragus*

NOTABLE NUTRIENTS OR USES No nutritional information available; vitamin A, protein, fiber

SAFETY NOTES The plant can contain as much as 5% oxalic acid; thus, folks who are sensitive to oxalic acid should avoid the genus. Tumbleweed pollen is also a bane of allergy sufferers. And if you eat it when it's too old, the shape of the leaves—fat and pointed—will irritate your throat.

NATIVE STATUS Native to Eurasia; introduced in the US in the 1870s; highly invasive



Green Deane's Itemized Plant Profile

IDENTIFICATION Annual herb to 5 feet tall, usually less than 3 feet, bushy, branching from base, upright or almost prostrate. Leaves and bracts fleshy, flat-ish, short, tipped with sharp spines. Flowers with five narrow, whitish petals, solitary, unstalked. Older branches serpentine, purplish.

TIME OF YEAR Late summer to fall in some areas, in others nearly year-round

RANGE All of North America

ENVIRONMENT Sandy areas, seashores, some desert environments, salty areas, beside northern roads because of salt or western roads because of open space, railroad tracks

METHOD OF PREPARATION Young shoots raw or cooked, tips of growing plants raw or cooked. Its seeds are reportedly edible, but I've never tried them. The

mature plant has been used to make glass and soap.

Green Deane's Notes

When you first encounter Russian thistle—one of several plants commonly called a tumbleweed—it's the very last plant you would consider edible. Wiry, tough, sharp, prickly, and irritating, it kind of reminds me of a green sand spur on steroids.

However, the young shoots and tips of the growing plant are edible raw and actually quite palatable and pickable. Cooked like greens, they're even better. As the plant ages, though, it grows tough and formidable. Dried ones tumbling across deserted areas are a classic visual cue of desolation in Western movies and TV shows.

The most reliable species to eat is *Salsola kali*, which is believed to have arrived in the United States in the early 1870s, when Russian immigrants to South Dakota brought flaxseed from home that had *Salsola* seeds mixed in. By 1873, local botanists declared there was a new weed in town. By 1895, it had spread from the remote north middle of the country to New Jersey and California.

Lyster Hoxie Dewey, a botanist for the US Department of Agriculture, said in two reports in 1893 and 1894 that he knew how the plant was spreading: by train. He documented *Salsola* growing along railroad tracks (in Illinois, among other places) and theorized that, carried by railways and wind, the plant could be come a severe problem. Dewey recommended that rail companies get rid of the plant wherever they found it growing. Today, millions of dollars are spent each year to eradicate it, especially along highway right-of-ways. It can rapidly take over open land via up to 200,000 seeds per plant.

There are many *Salsola* species; botanists aren't sure of the exact number. Complicating matters further, some plants in the genus, including *S. kali*, were reassigned to a new genus, *Kali*, in 2007; the USDA, however, still refers to the species discussed here as *S. kali* or *S. kali* ssp. *tragus*. Other edible species

Shepherd's Purse

Capsella bursa-pastoris

NOTABLE NUTRIENTS OR USES Vitamin C, potassium, calcium, phosphorus, chloride

SAFETY NOTES No known safety issues

NATIVE STATUS Introduced



Nutrition Notes

Leaves, per 100 grams

33 calories, 0.5 g fat, 9 g carbohydrates, 3 g protein, 3.4 g fiber

Vitamin A	327 IU (98.1 mcg RE)
Vitamin B1 (thiamine)	0.25 mg
Vitamin B2 (riboflavin)	0.17 mg
Vitamin B3 (niacin)	0.4 mg
Vitamin C	63.5 mg
Calcium	235 mg
Chloride	80.6 mg
Copper	0.1 mg
Iron	4.8 mg
Magnesium	19.2 mg
Manganese	0.4 mg
Phosphorus	81 mg
Potassium	376 mg
Sodium	47 mg

Green Deane's Itemized Plant Profile

IDENTIFICATION Flowers white, four-petaled, two-stamened; fruit a heart-shaped seed; leaves lobed, toothed, long, lance-shaped; stems erect; seedpods flat, two-chambered around the stem (shape may vary); taproot vertical

TIME OF YEAR Spring and summer

RANGE Worldwide

ENVIRONMENT Well-drained soils (sandy to rich), old pastures, gardens, lawns, roadsides, nearly any sunny spot

METHOD OF PREPARATION Leaves raw or cooked as potherb, seeds ground for seasoning

Green Deane's Notes

I see shepherd's purse in winter starting in late November. It's very similar to peppergrass (see page 220), though it's much milder in flavor and the seeds are more heart-shaped than purse-shaped.

In addition to the nutritious leaves, shepherd's purse seeds contain (per 100 grams) 12.4 grams of protein, 22.6 grams of fat, 50.3 grams of carbohydrates, and 14.3 grams of fiber.

The leaves can be used raw in salads or sautéed/stir-fried, while the seeds can be ground and used as a pepper substitute. You can also use the flowers to flavor vinegar. Finally, you can grind the root and make a horseradish substitute with salt and vinegar, although it's a lot of work. Shepherd's purse is grown commercially in Asia and is widely used in Chinese and Korean cooking.

Silverhead

Blutaparon vermiculare

NOTABLE NUTRIENTS OR USES No nutritional information available

SAFETY NOTES No known safety issues

NATIVE STATUS Native



Green Deane's Itemized Plant Profile

IDENTIFICATION Succulent, creeping, prostrate herb with branches 1–6 feet long. Leaves opposite, spindly or club-shaped, from narrow to 0.4 inch wide, 0.5–1.5 inches long, thick, fleshy. Flowers silvery white, a dense round

Sourwood

Oxydendrum arboreum

NOTABLE NUTRIENTS OR USES No nutritional information available

SAFETY NOTES Avoid consuming leaves; they are a laxative.

NATIVE STATUS Native



Green Deane's Itemized Plant Profile

IDENTIFICATION Deciduous, medium-tall tree growing to 30–60 feet, slender pyramid shape, sometimes oval, often with a curved or leaning trunk. Bark rusty brown, smooth when young, becoming rough and furrowed. Simple, alternate, oblong leaves to 10 inches, rich green and glossy on top, appear to fold in the sun and hang as if weeping; turn brilliant red and purple in fall. Blossoms white, urn-shaped, upside down, on long, drooping stalks to 10 inches.

TIME OF YEAR Blossoms spring to summer, depending on altitude

RANGE Southwest Pennsylvania down the Appalachian chain, just dipping into the Florida panhandle

ENVIRONMENT Prefers rich soils and mixed hardwood and softwood forests, but is adaptable. Full sun, some shade

METHOD OF PREPARATION Flowers used to make jelly and honey; chewing leaves can reduce thirst.

Green Deane's Notes

Sourwood honey is considered by some to be the best-flavored honey in North America, perhaps the world. Carson Brewer, a conservationist who wrote about life in Appalachia, mused that

“most honey is made by bees. But [s]ourwood is made by bees and angels.”

Honey connoisseurs say there's an excellent crop of sourwood honey about once a decade, making it rare as well as good. This rarity is as much dependent on weather patterns as it is timing and beekeeping expertise. The honey's color can be white to amber, sometimes with a light-gray tint. Its texture is smooth, caramel-esque, buttery. The flavor is similar to gingerbread with a bit of kick in the aftertaste.

In years when there aren't enough good blossoms for honey, they can be used to make jelly. The leaves can also be chewed to quench thirst. (Don't swallow them, though—they're a laxative.) Some writers call the blossoms aromatic; I find their scent pleasant but barely detectable.

Food chemist Elias Yanovsky wrote a book in 1936 for the US Department of Agriculture called *Food Plants of North American Indians*, which was written in part as a response to the food shortages of the Great Depression. A few of Yanovsky's claims have been criticized as inaccurate, however. For example, he says that tribes in the Southeast ate young sourwood leaves in salads, but ethnobotanists such as Dr. Daniel Austin say these tribes did not usually eat raw vegetables.

Sourwood does have a rich history of medicinal uses, however. The Catawba used it as an infusion for menstrual issues and menopause, and the Cherokee used sourwood infusions to stop diarrhea. Indigenous people also used it to make a tonic for indigestion, nervousness, and asthma, among other ills. Francis Porcher, a Civil War doctor and botanist, wrote: “The leaves when chewed allay thirst. A decoction of the bark and leaves is also given as a tonic.” In the South, sourwood has also been used as a folk remedy for kidney and bladder issues, and to lower fevers.

Related to the blueberry and a member of the heath family, *Oxydendrum* is a monotypic genus, that is, *O. arboreum* is its only member. Sourwood is also called

pistachios. The berries and leaves of poison sumac contain urushiol, the same oily substance in poison ivy (that's responsible for the maddening itchy rash. Brazilian pepper is on the cusp of toxic and nontoxic—the edible seeds can be ground and used like pepper, but the leaves can cause contact dermatitis in people with sensitive skin. Cashew shells contain urushiol. Mangoes and pistachios taste good, but some people are allergic to them.

In a nutshell (so to speak), edible sumacs have red, purse-shaped berries with a fine coating of fuzz (often gray) in cone-shaped clusters at the end of main branches. They have skinny, lance-shaped leaves and like dry ground. Poison sumac has roundish leaves, pointy on the ends, has white or light-green fruit that grows out from where a leaf meets the stem, and grows only in very wet places. Brazilian pepper has long, ovalish leaves and clusters of smooth, bright-pink/red, hairless berries growing off stems.

Sunflower

Helianthus annuus

NOTABLE NUTRIENTS OR USES Phosphorus, potassium, zinc, niacin, vitamin E, unsaturated fat

SAFETY NOTES In rare cases, people with nut allergies may also be allergic to sunflower seeds; they can also cause contact dermatitis in some people.

NATIVE STATUS Native



Green Deane's Itemized Plant Profile

IDENTIFICATION Tall annual or perennial plants to 12 feet or so. Rough, hairy stem,

branched on top. Toothed leaves often sticky, rough. Lower leaves opposite, ovate or heart-shaped, upper leaves alternate and narrower. Flower heads have bright-yellow rays. Young flower heads follow the direction of the sun, turning east to west during the day and turning back to east overnight; older plants stop turning but face east.

TIME OF YEAR Seeds and roots in the fall

RANGE Throughout North America

ENVIRONMENT Prefers rich soil and good watering

METHOD OF PREPARATION Seeds raw or roasted, roots raw or roasted. Seed oil has a wide variety of uses and applications. Young blossoms boiled or baked; leaves used mostly for tea

Nutrition Notes

Seeds, per 100 grams

582 calories, 49.8 g fat, 24.07 g carbohydrates, 19.3 g protein, 11.1 g fiber

Vitamin A	17 IU
(as beta-carotene)	(5 mcg RE)
Vitamin B1 (thiamine)	0.11 mg
Vitamin B2 (riboflavin)	0.25 mg
Vitamin B3 (niacin)	7.04 mg
Vitamin B6 (pyridoxine)	0.8 mg
Vitamin B9 (folic acid)	237 mcg
Vitamin C	1.4 mg
Vitamin E	26.1 mg
Vitamin K	2.7 mcg
Calcium	70 mg
Copper	1.83 mg
Iron	3.8 mg
Magnesium	129 mg
Phosphorus	1155 mg
Potassium	850 mg
Selenium	70.3 mcg
Sodium	3 mg
Zinc	5.29 mg
Choline	55.1 mg

Green Deane's Notes

Although sunflowers sometimes have a head a foot across, they are not the largest native blossom in North America—that distinction goes to the much smaller American lotus. Nonetheless, sunflowers *look* like they should be the largest flowers in North America, certainly the tallest.

they cook. I like them with salt, pepper, and butter. Cooked, they're not peppery at all but rather mild—to me they taste more like kohlrabi than radishes.

The nutritional profile for radish sprouts is similar to that of the entire plant (see box), although the sprouts are higher in a few vitamins and minerals. Most notably, the sprouts contain about twice the vitamin C of the plant as a whole (29.8 mg versus 14.8 mg) and almost four times as much folate (95 mcg versus 25 mcg).

Wild Rice

Zizania spp.

NOTABLE NUTRIENTS OR USES Protein, fiber, magnesium

SAFETY NOTES Harvesting wild rice in some states requires a license (Minnesota, for example)

NATIVE STATUS Native



Nutrition Notes

Per 100 grams

355 calories, 1 g fat, 75.3 g carbohydrates, 11.2 g protein, 1 g fiber

Vitamin B1 (thiamine)	0.44 mg
Vitamin B2 (riboflavin)	0.6 mg
Vitamin B3 (niacin)	6.2 mg
Calcium	20 mg
Copper	0.3 mg
Iron	4.2 mg
Magnesium	139 mg
Manganese	1.1 mg
Phosphorus	348 mg
Potassium	257 mg
Sodium	26 mg

Green Deane's Itemized Plant Profile

IDENTIFICATION *Zizania aquatica*, erect annual aquatic grass to 10 feet tall.

Stems hollow, leaves flat, to 4 feet long and 2 inches wide, leaf markings purple with thick midrib often nearer one leaf side than the other. Flowers large, open, terminal panicles, 2 feet long and 1 foot wide. Male flowers on lower portion of the flower droop, female parts stiff, twisted, barbed awns; seed kernels shallow-grooved the entire length of one surface, long, nearly cylindrical, purplish-black when ripe, closely adhering to thin brown hull. Roots slender, fibrous, shallow

TIME OF YEAR Late summer, mid-August into mid-September

RANGE *Z. aquatica*, along the Atlantic Coastal plain from central Florida to the northeastern end of North America. From this endpoint, west and southwest along the Great Lakes, one finds *Z. palustris*. Both of these are annuals. *Z. texana*, a perennial, grows only in Hays County, Texas, near the San Marcos River.

ENVIRONMENT Freshwater plant; thrives in brackish water in low marshes bordering tidal rivers, in no more than 2 feet of water. Also grows wild in shallow freshwater lakes and at the edges of lakes and streams

METHOD OF PREPARATION Hulled grains usually boiled. They can also be popped like popcorn or ground into a flour, used with other flours, or added to stews as a thickener.

Green Deane's Notes

Love and marriage, horse and carriage, wild rice and canoe—not exactly lyrical, but you get the idea. If you want wild rice other than from a grocery store, you have to go where it is, and that's in water, via canoe.

Grains are collected by using two sticks the length of your arm. One is used to bend the plant over the canoe. The other stick is used to gently brush the plant to knock off the ripe seeds. Successive visits to the same plant are possible, as not all the seeds ripen at the same time. Harvesting can start as early as after 4.5 months of growth. Grain is harvested when the plants are still green—if they're brown, you're too late.



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About the Author

"Green Deane" Jordan is an expert forager who teaches foraging classes and runs a popular foraging website (also called Eat the Weeds). His hobbies include gardening, cooking, dancing, canoeing, public speaking, kayaking, fishing, biking, hiking, and, of course, foraging for wild foods and other unusual edibles.

NATURE / PLANTS

ISBN 978-1-64755-179-7



9 781647 551797

PUBLICATIONS
Adventure
an imprint of AdventureKEEN