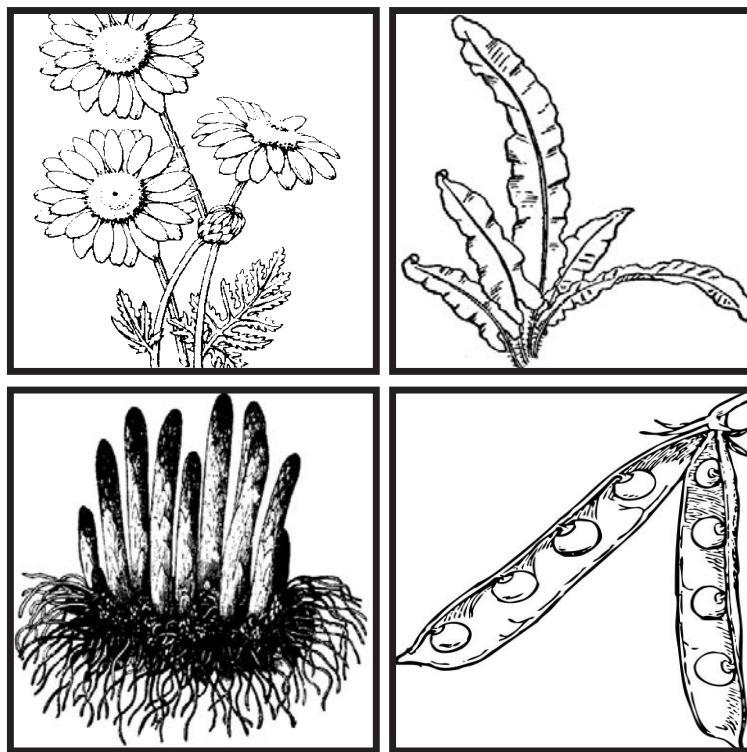




Center for Prairie Studies

A Beginner's Guide to Wild Edible Plants in the Grinnell Area



Spring 2011

GRINNELL COLLEGE



As the idea of eating more food produced near where one lives grows in popularity, a logical extension to obtaining food from local farmers is turning to nature's garden, the wild edible plants that grow in woods, prairies, parks, and even in one's own backyard. However, whereas everyone knows what a tomato, a squash, and a pepper look like, and many people can also recognize the plants that produce these vegetables, most of us never learned what can be eaten from wild plants, except perhaps a few fruits and berries. This guide will help you identify some of the most common wild edible plants that can be found growing in and around Grinnell. The idea for this guide originated with Jordan Scheibel, a 2009 graduate of Grinnell College, who in collaboration with the staff at the college's Center for Prairie Studies researched and wrote it as a post-graduation project.

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Introduction

This guide is intended to generate interest in and provide information about some of the most common species of edible plants that are readily identifiable by beginners and relatively easy to harvest and use. It is written by a relative beginner for beginners. Speaking from experience, I can say that your understanding and enjoyment of foraging will be enhanced by focusing first on only a few species rather than trying to catch every edible plant as it comes into season.

I have relied heavily on what experts have written, but I have condensed their information and advice, supplemented with my own experience, into a form specifically for novices. Many other species of edible plants are worth seeking out that could not be included here. As you become more experienced, I hope you will want to consult the excellent resources listed in the back of this guide to expand your knowledge. In fact, it is a good idea, especially for beginners, to have a guide with more detailed descriptions for double-checking your identifications.

Foraging for edible plants can be an easy and safe activity as long as you take the necessary precautions before consuming any plant that you gather. Every year, a few careless people are sickened or killed by eating poisonous plants or mushrooms. Do not be one of them.

Reasons for Eating Wild Plant Foods

Personal Health

Foods produced by the methods of so-called “industrial agriculture” are often raised using pesticides and synthetic

fertilizers, are bred for quick ripening or the ability to store well after being picked rather than for nutrient content, and are often highly processed. Wild edibles, if selected carefully, are naturally “organic” and chemical free. Harvested at peak ripeness and consumed shortly thereafter, they retain high levels of vitamins, minerals, and fiber that may have been bred out of cultivated varieties.

Taste and cooking

Wild edible plants open up a whole new palette of tastes and varieties to choose from that stretches well beyond what is available at the grocery store and farmers markets. In addition to providing interesting substitutes to common ingredients, wild edibles provide us with wholly different kinds of foods, from sumac-ade to redbud flowers.

Local and Place-Based

At a time when many Americans are attempting to eat more food produced near where they live, wild plant foods are a natural and logical supplement to a locavore diet. Furthermore, learning to identify and use edible wild plants connects us to where we live and helps us see familiar landscapes in new ways. Lawns, parks, forests, and fields suddenly become alive with possibilities of good things to eat.

Self-reliance and traditional skills

Foraging for wild plants for food and medicine is a traditional skill that until relatively recently was practiced widely around the world. Learning to gather local wild edibles connects us to our ancestors, resurrects knowledge that has been marginalized in our culture, and increases our self-reliance. While no longer essential to survival, foraging is still a skill that cultivates our well-being and sense of place in the world.

History and Botany

Learning about edible plants gives us a window into both human history and evolutionary history. We learn the various names plants have had, their many uses, and the way that they have intersected with culture and mythology. We learn about their relationship to other plants, including domesticated relatives, and how they fit into the ecological web. Quite simply, learning and eating wild edible plants is one way to appreciate the amazing richness and beauty of plant life.

Abundance and cost

Wild edible plants are free for the taking and are often found in abundance. In some cases – for example asparagus, black raspberries, or parsnips – their cultivated counterparts are expensive. With enough time and energy, foraging for wild plants can reduce the amount of money you spend on food. Their abundance makes it possible to store plants for winter use by canning, freezing, and drying.

Cautions

Readers should take some basic precautions when eating wild plants. Eating wild plants is not as risky as some think, but it is also not something to be done carelessly. Positive identification is important because of the possibility of consuming poisonous look-alikes. It is also important to consume wild edible plants during the appropriate season, since some are unpalatable or even toxic out of season. Some wild edible plants should be eaten sparingly. A number of species in this guide contain oxalic acid, which is harmless when consumed in moderation, but can cause kidney stones and other health problems if consumed in excess, especially in the presence of underlying medical conditions.

Not all areas are safe to forage. For example, railroad right-of-ways can harbor many edible species and may seem like excellent

places to forage, but railroad companies use herbicides heavily along their right-of-ways. The same caution should be used with roadside areas, which are typically sprayed with herbicides to control weeds. Long-term lead contamination of the soil next to roadways, from the era when leaded gasoline was burned in automobiles, is also a problem. The leaves, roots and stems of plants will accumulate the most lead from contaminated soil, so avoid areas within 50 feet of heavily traveled roadways.

Foragers should also be cautious in and around farmland. The vast majority of farmland in Iowa is treated with herbicides, pesticides and synthetic fertilizers. Farmlands and the lands around its margins can be contaminated with these chemicals. Some plants will also accumulate toxic levels of nitrates in their tissue (see Lamb's Quarter, Amaranth), so plants in areas that have been fertilized are unsafe to eat. Lawns that do not have any weeds in them should be avoided – they have most likely been treated with herbicides. Waterways in Iowa are also off-limits due to the high levels of nutrients in the water from farm run-off, which fosters the growth of algae, bacteria, and other organisms that can be harmful to humans. For that reason, you should not forage two common aquatic wild edible plants, water cress and cattails, unless you are certain of the water quality.

Foragers should also be aware of restrictions due to an area being privately owned or nature reserve. Always ask land and business owners before foraging on their property to make sure that they have no objections. Do not forage in areas that are protected as nature reserves unless you have the permission of the officials in charge of the area. State-owned parks and city parks are usually open to foraging. Caution should still be used along maintained trails and lawns, since these areas are sometimes treated with herbicides to suppress weeds.

Non-native vs. native species

Many of the readily available edible plants in Iowa are non-natives, introduced from Europe and Asia. They are often the plants that thrive most readily in the disturbed habitats that dominate the Iowa landscape and have a competitive advantage over native species. They were sometimes introduced specifically as foraging or medicinal plants. In other cases some varieties of a plant are native to North America while others are not, which can make it difficult to distinguish which are truly native. Some plants were introduced so long ago and have become so ubiquitous that even early settlers believed that they were native plants (Plantain, for example). Some non-native plants are considered aggressive invasives, while others are considered more benign. Invasive species are more commonly found in disturbed areas, and there are often large, resilient populations of such plants from which to forage. Native species, on the other hand, are rarer, typically displaced from disturbed habitats and more frequently found in prairie remnants and undisturbed areas away from human habitation.

The distinction between native and non-native plants is sometimes important in considering foraging ethics. Native edible plant species tend to be rarer and more susceptible to over-harvesting than non-natives. In fact, eating some non-native invasives could help limit their spread. As a forager, I am not particularly interested in more pristine or rare species that only grow in undisturbed habitats or without the introduction or helping hand of humans. A black walnut tree planted and maintained in a public park is as good to me as a stately old hickory tree out in the country. It is even likely in some cases that the plants we consider to be “more” wild have been affected to a large degree by human activity. This guide is not meant to require you to even leave town to find species that are edible and useful. Indeed one of the purposes of writing this guide is to persuade you that there are edible species right outside your door, in the places you pass by every day, and that each of these species holds

the possibility of learning about and enjoying the fruits (and nuts, roots and leaves) of the plant world right in the midst of the human world.

Recipes

Although many of the species included in this guide are delicious raw or minimally prepared, others will require cooking. Just as tending a vegetable garden implies the willingness to cook and preserve the harvest, gathering edible plants requires one to figure out how to prepare foods incorporating those species. This can be exciting for both beginning and experienced cooks. Many wild edibles can serve as substitutes for common cultivated foods in recipes but often there are recipes specific to wild edible plants. For each type of edible plant in this guide I give tips about how to prepare it and provide a recipe in the back of the guide. Some I have tested, others I have not. Cooking with wild edibles often requires more flexibility and experimentation than is required for cooking with the familiar cultivated species. It's important not to give up or dismiss particular species after a few failed attempts to cook with it. Following established recipes will help. I also provide some tips for preserving seasonal excesses through drying, canning, and freezing.

Seasons

The species in this guide are divided into four seasons: early spring, spring, summer, and autumn. A few species in this guide can be found in the late autumn and winter. This is noted in the text. Early spring is the time when snow and ice has melted but before the warm weather of the spring has set in, generally early March through mid April in Grinnell. Species available at this time of year include hardy greens, early flowers, shoots, and overwintered roots. Species available in the early spring tend to become bitter and tough with the onset of warmer weather, although some such as dandelions become edible once again with

the hard frosts of fall. Spring is the time between the onset of warm weather and the beginning of the hot weather of summer, generally mid-April to late May in Grinnell. Greens, flowers, and shoots are all available during this time. Many of the species that show up in the spring will remain edible throughout the summer and fall, until the onset of cold weather in October. Summer, of course, is the time of the hottest weather, lasting June through late August. Available plants include berries, fruits, flowers, and mild greens. The hot, moist weather of summer means accelerated growth and decay, making it imperative to harvest species at their peak ripeness. Autumn is the time of cooling temperatures leading up to the onset of hard frosts in mid to late October. Nuts, seeds, fruit, mild greens, and bitter, early season greens and roots after a frost are all in season. Between late October and early March there are still some edible plants available, including dried fruits like hackberries and sumacs, as well as some hardy greens and roots when the ground is not covered in snow.

Plant Identification

It's important to know some basics about plant identification before going out into the field. Certain terms that appear in this guide are explained here.

Alternate leaves: leaf attachments are single and leaves alternate direction along the stem

Annual: a plant that germinates, flowers, and dies in a single year or season

Basal rosette: leaves merge from the ground at a common point (ex. Plaintain)

Biennial: a flowering plant that takes two years to complete its biological lifecycle

Catkins: long, cylinder-shaped, usually hanging flower clusters consisting of flowers that have inconspicuous or no petals and are arranged along a central stem

Compound leaves: divided leaves that have leaflets connected by a non-woody midrib

Feather-compound: Leaflets emerge in opposite or alternate patterns along a midrib

Leaflet: subdivision of compound leaf that lacks a bud at its terminal end

Forb: a non-woody flowering plant

Lobed leaves: a leaf with major projections along the margin that shape the leaf

Opposite leaves: leaf attachments are paired and leaves appear opposite from each other along stem

Perennial: a plant that lives more than two years

Simple leaves: undivided leaves that have next year's bud on the twig, next to the base of the leafstalk

Toothed leaves: margin of leaf is jagged rather than smooth

Glossary of Symbols

The symbols that accompany each species or group of species in this guide correspond to the parts of the plant that are edible. There is also a symbol indicating that plants have a simple medicinal use or that they should be approached with caution, which will be more fully explained in each plant description. Sometimes plants will have multiple symbols for multiple edible parts. For example, dandelions have edible flowers, leaves, and roots. This does not mean that all three parts are always edible or always available (often the window for harvest of wild edible plants is quite short) but rather that these parts are available and edible at some point during the year. These symbols serve as a shorthand guide so that you can quickly identify species by their edible parts.

	Berry
	Approach with Caution (Read warning in plant description)
	Cold Drink
	Flower
	Leaf
	Medicinal Use

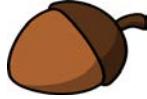
	Nut
	Pod
	Root
	Seed
	Shoot
	Tea

Chart of Seasonal Availability of Various Species

Early - 1st week of the month

Mid - 2nd or 3rd week of the month

Late - 4th week of the month

Main season - peak time for harvesting

Extended season - can be harvested during the winter under certain conditions

Amaranth	Leaves: late April - early October Seeds: late September - late October
American Basswood	Leaves: late April - early May Flowers: late May - mid June
American Hackberry	Main season: late August - late September Extended season: late September - late March
Black Raspberry	Late June - early July
Black Walnut	Mid August - early October
Common Blackberry	Late July - early August
Common Wood Sorrel	Late April - early October
Curly Dock	Late March - early May, early October - late November
Dandelion	Main season leaves and roots: mid March - mid April, early October - late November Extended season leaves and roots: early December - early March Crowns and flowers: early April - late April
Jewel Weed	Mid April - early October
Juneberry	Early - late June
Lamb's Quarter	Late April - early October
Mulberry	Early - late June
Plantain	Mid March - early November
Purslane	Late April - early October
Red & White Clover	Late April - early October
Rebdud	Flowers: early April - late April Pods: late April - late May
Shagbark Hickory	Mid August - mid September
Staghorn & Smooth Sumac	Smooth: late July - late August Staghorn: late August - late March
Wild Asparagus	Mid April - June
Wild Parsnip	Main season: mid March - late April, early October - late November Extended season: early December - early March

Dandelion

Taraxacum officinale

Non-native

Perennial forb



If there is one plant that nearly everyone can identify, it is the dandelion, and no edible plant guide would be complete without it. The English name of this invasive species from Europe comes from the French term dent de lion or “lion’s tooth”, so-called because of its characteristic sharply toothed leaves. It has spread to nearly every corner of the United States and Canada in great abundance, carpeting lawns, meadows, ditches and other disturbed sites with its ubiquitous yellow flowers in the spring. It is a particularly despised yard and garden weed. Dandelions are well adapted to the world of disturbed habitats that we live in. Their deep, meandering roots usually break when the plant is pulled out of the ground, leaving behind pieces that will regenerate into new plants. Dandelions can fertilize themselves and disperse seeds as early as a day after the flower opens.

Many people know that dandelions are edible. The most common problem, though, is that many inexperienced foragers use the plant too late in the season and reject it because of its bitterness. When used during the right seasons, however, nearly every part of the dandelion is edible. The best dandelions for gathering are not the ones found in a closely cropped lawn but rather those that have been allowed to grow freely year after year and develop large perennial roots. Young greens should be gathered as soon as they sprout after the spring thaw but before the weather warms and dandelions begin to flower. Even when gathered in this stage, dandelion greens are bitter and may take some getting used to;

dandelion greens are often best mixed with other milder greens. Our modern diets tend to habituate us to foods heavy in sugar, salt, and fat so we often lack a taste for bitterness that occurs in many wild edible greens. Extreme bitterness is, of course, unpalatable and can indicate the presence of toxins. There are, however, many shades of bitterness. Developing our ability to appreciate them can help expand our palates beyond the sweet, oily, and salty foods that too often define what is tasty.

The roots of dandelions are also edible and can be gathered early in spring and even after flowering, but bitterness increases with warming weather. Try them thinly chopped and stir-fried in oil with onions and garlic. Both the greens and roots become palatable again in the fall after hard frosts have removed their bitterness. Dried and ground dandelion roots were traditionally used as a coffee substitute, along with the root of dandelion's relative chicory. The crowns that develop before flowering are edible as well as the flowers themselves which emerge in mid-spring. Make sure to remove the bitter green sepals and only use the yellow parts of the flower. The flowers can be eaten whole or chopped up in a salad.

Dandelions are about as nutritious as any food you can eat. They have more beta carotene than carrots, more iron and calcium than spinach, and they contain a host of vitamins including B, C, D, and E. The leaves can be brewed as a cleansing tea. The roots contain inulin, a sugar that doesn't stimulate the rapid production of insulin like refined sugar does, which makes it useful for treating diabetes and hypoglycemia. The stems of dandelions contain a milky white sap that can be used in the same way as plantain leaves to treat stings, blisters, and other skin irritations.

Dandelions resemble two other edible species of the early spring and late fall – chicory and wild lettuce. The difference is dandelion leaves do not have hairs and they never grow in a central stalk of leaves and flowers, only in a basal rosette close to the ground.

Wild Parsnip

Pastinaca sativa

Non-native

Biennial forb



CAUTION: Common parsnips bear a superficial resemblance to poison hemlock, a notoriously deadly plant. Unlike parsnip, however, poison hemlock has white instead of yellow flowers, finely cut leaves and bundles of fleshy, foul smelling roots rather than a single taproot.

Wild parsnip is a wild food in the sense that it has escaped from cultivation, and is a cousin to the commercially grown parsnips that one can find in the produce section at the grocery store. It is a wildly successful weed, growing readily in roadside ditches, overgrown fields, and other damp, disturbed soils. It's a biennial plant, meaning that it produces seed and dies during its second year. During its first year it forms a basal rosette of large feather-compound leaves with stalk-less, toothed leaflets and stays low to the ground, relatively inconspicuous. During its second year, in mid-spring, it grows a stout, deeply grooved, hairless flower stalk, up to five feet tall, which branches into multiple umbrella-like clusters of tiny yellow flowers as the weather warms. These flowers can be seen blanketing ditches during early to mid summer. In the late summer those flowers turn to seeds and the plant dies. Each plant has a single, large, whitish taproot.

My first encounter with parsnip was not a pleasant one. I was working with several other people on a restored tall-grass prairie plot in mid-June, removing the second year parsnip plants that were flowering before they would go to seed in a couple of weeks.

We wore gloves and long-sleeved shirts to protect ourselves from the furanocoumarins in the plant, stinging chemicals that interact with sunlight on wet or sweaty skin to produce painful, red blistering rashes. My shirtsleeves, however, constantly pulled up past my wrist as I bent down to yank the plant out of the ground by the root. I ended up getting juices from the plant all over my wrists and subsequently developed a very sore, blistering rash that persisted for over a week and left scars that took months to fade away.

Fortunately the best time to harvest parsnip roots to eat is in the late fall of its first year of growth to the early spring of its second year of growth while it is still in the basal rosette stage, well before it has sent up its second-year flowering stalk and its blistering effect has become particularly potent. If you carefully dug the roots out of the ground with gloves, taking care not to expose bare skin to the plant's juices and direct sunlight, then you should have no problem avoiding a rash. Cook parsnip the way you would use commercial varieties. Wild parsnips are uglier than the commercial varieties but generally sweeter and more tender if harvested at the right time. Later in the spring it becomes increasingly tough and bitter, so it's best to use this plant as soon as the ground has thawed and can be dug. Do not use any part of the plant once the flower stalk has appeared. You can identify dense patches of first-year parsnip during the spring, summer and early fall, returning to dig up the roots late in the fall before the ground freezes and early in the spring just after it has thawed. Parsnips can also be harvested if possible in the winter between their first and second years during thaws.

Plantain

Plantago major

Non-native

Perennial forb



Plantains (not related to the banana-family plantain) are an unglamorous and ubiquitous plant, taken for granted by most people. The *Peterson Field Guide to Wild Edible Plants* summed up the plantain as a “low, homely plant.” Like so many edible plants, they are often considered an offensive and persistent weed, a characterization that belies their history as a respected medicinal plant in monastery gardens and botanical parks. Today in the United States they grow everywhere, from front lawns and cracks in concrete sidewalks to open meadows and farm fields. Chances are you are not too far from one right now. Their fibrous root system allows them to take up trace amounts of moisture and nutrients in poor, dry soil and their short stature keeps them safe from even the lowest-slinging blades of lawn mowers. This humble, tenacious plant, though, is not just another difficult to eradicate lawn and garden weed – its edible and useful, all the more so because of its sheer commonness. There are several species of plantain in North America, all without poisonous look-alikes, and all with similar uses.

The common plantain is the most familiar. It grows in a low basal rosette of broad irregularly rounded to oval green leaves with prominent, parallel veins in each leaf. From late spring through fall the plant will send up a short green flower stalk with many tiny greenish-white flowers that turn into green or black capsules packed with minuscule seeds.

The first European settlers inadvertently brought plantain to North America, and its seed was quickly spread through the aid of birds (plantain seed is grown commercially today for use in bird seed mixes), wind, and settler's boots into the interior of the continent. By the early 1700's people were already mistaking them for native plants. A European botanist who reported on American gardens at the end of the 18th century found plantain so common that he supposed it must be native to New England. Native Americans knew it as "the white man's footprint" because it seemed to show up near European settlements. Indigenous people in Australia and New Zealand echoed Native Americans by calling it "Englishman's foot". It was this reputation that led Henry Wadsworth Longfellow, the famous American poet, to use the plantain in his poem "Song of Hiawatha" to presage the destruction of the American wilderness.

The leaves of the plantain can be eaten early in the spring, when they first emerge, or new leaves can be eaten throughout the growing season. By mid-spring they become tough and stringy, good only for vegetable stock, where they provide minerals and their tough fibers are avoided. Plantain is equally valuable for its astringent qualities (available throughout the growing season) that give almost instant relief to insect bites, plant stings and other minor skin irritations. The next time you are stung by a bee, touch a nettle plant, or otherwise irritate your skin, look around you. Chances are there is a plantain plant within sight. Tear off a leaf and shred it with your fingernails, then take the dark, juicy pulp and rub it repeatedly or hold it on the irritated area. It provides relief within 15 minutes. Applying plantain juice can even prevent a poison ivy rash if you've been exposed to that plant's irritating, rash producing oils. Because of its high chlorophyll content, plantain leaves can also reputedly be used as a breath freshener.

Curly Dock

Rumex crispus

Non-native

Perennial forb



CAUTION: Curly dock and several other species in this guide contain oxalic acid. Plants with oxalic acid should be consumed in moderation and should be avoided by people with rheumatoid arthritis, gout, or kidney stones, since it tends to exacerbate these conditions.

Curly dock is a member of the buckwheat family, *Polygonaceae*, a group of plants that includes several familiar cultivated species including buckwheat, rhubarb, and sorrel as well as other wild edible species such as knotweed (not covered in this guide). It was introduced to North America from Eurasia. Like wild parsnip it thrives in disturbed roadsides, and its tall flower stalk with dense clusters of flowers is easy to spot along highways in May and June. By autumn these stalks have gone to seed and dried. Unlike wild parsnip, curly dock is a perennial rather than a biennial, sending up a flower stalk every year after its first year. Before flowering, the long, narrow, rumpled looking leaves grow in a basal rosette near the ground, similar to dandelion. The leaves have prominent, lighter colored midribs. Curly dock can be mistaken for other dock species that have more bitter, wider leaves that lack curled edges.

Curly dock leaves are edible in the early spring to mid spring before they begin to become bitter as the flower stalk emerges. They lose their bitterness again in the fall after a frost. Curly dock leaves are sour, containing a high amount of oxalic acid. For this reason, they should be eaten in moderation. Tender leaves can be

eaten raw in salads and older leaves can be cooked like spinach. The leaves turn gooey when cooked and have a thickening effect on soups. They are nutritionally superior to spinach, containing significantly more protein, calcium, vitamin C and iron. Beware of very young curly dock leaves that emerge at the very beginning of the spring. They should be washed before consuming or the acid in them will irritate your mouth. The emerging flower stalks are also edible, having the texture of celery and the lemon flavor of the leaves, somewhat like their relative rhubarb. The stalk should be cut right at the base and the tough outer layer peeled. It can be eaten raw in salads or cooked for 5 minutes or less.

While it isn't edible, the root of curly dock has been used medicinally for thousands of years. Herbalists called it yellow dock for its long yellow taproot. Like plantains, curly dock leaves can be used to treat nettle stings and other skin irritations, hence the saying "nettles in, dock out." The word dock itself means an animal's tail and the verb to dock means to remove the tail. Weeds become known as "dock" because people wanted to remove them.

Redbud

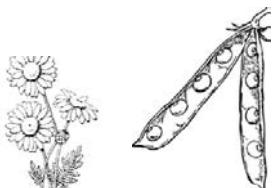
(Judas Tree)

Cercis canadensis

Native to North America,

Introduced to Iowa

Tree



The redbud tree is a legume, in the Fabaceae family, along with garden peas and beans. The redbud tree is one of a number of North American trees that is favored by landscapers, which means that you can very often find it in home lawns and public parks. I have an old redbud tree in my front yard that lost its main trunk some years ago and now grows along the ground for fifteen feet or so before sending a crooked twenty-five foot trunk up into the air. Most redbuds are smaller and shrubby, but mature trees can be as tall as fifty feet.

Unfortunately, the redbud tree is not always found in the older wild edible plant guides. This is regrettable since the clusters of small purple-red, pea-like blossoms that give the tree its name are both beautiful and readily edible. They appear in mid-spring as the weather warms but before the leaves appear, making the bare tree very conspicuous. The flowers have long stalks relative to their size and are clustered in 'nodes' along the branches. They have a sharp, sweet and sour flavor and are rich in vitamin C. The flowers can be added raw to salads for a splash of color, put in cooked vegetable dishes just before serving, tossed into oatmeal when its finished cooking or added to pancake batter or bread dough. They can also be frozen in ice cubes and served in drinks. Its good to leave some flowers to mature to seed so that in the late spring and early summer, you can gather the tender, young pods and eat them lightly cooked, like snow peas. Make sure to pick the pods at an early stage of development before

they become inedibly tough. The pods will gradually dry out and can remain on the tree well into the winter, helping to identify the tree once the flowers and leaves have passed. The leaves that emerge along with the pods are broadly heart-shaped with pointed ends and smooth edges. They have a reddish tint when they first emerge.

The redbud tree is also known as the Judas Tree because Judas Iscariot, the apostle who betrayed Christ to the Romans in the Biblical account of his life, is said to have hung himself from the tree, after which the white flowers turned red with blood or shame.

Wild Asparagus

Asparagus officinalis

Non-native
Perennial forb



Like parsnips, wild asparagus is another escapee from cultivation. Also like parsnips, asparagus has changed in the wild, producing thinner and more crooked stalks that have a stronger flavor than the commercial asparagus. The easiest way to identify asparagus is not in its edible form, but in the summer when it has matured into a tall, thin stalk sporting a wispy lattice of thin leaves and in the fall when that stalk turns a strong yellow that stands out prominently in roadside ditches among the more subtle browns and grays of dead and dying grasses. I first became excited about the prospect of wild asparagus when I was helping do some maintenance work on a privately owned restored prairie and nearby woodland. Close to the woods I noticed a large block of mature asparagus plants stretching along one side of the field, a likely holdout from when this field was part of a farm homestead. I made a mental note to myself to return the following spring to cut some of the tender shoots that would emerge then. In addition to feral garden patches here and there, escaped asparagus can often be found clustered in roadside ditches. Asparagus grows by rhizomes, underground shoots that branch out and send up new shoots in widening patches.

Wild asparagus, like many species in this guide, is a highly seasonal plant. The first shoots will usually start poking out of the ground in late April or early May, sooner if the weather is warm early in the spring or later if it stays cold through April. If you are watching a particular set of shoots it is best of check them frequently to

ensure that you cut the shoots at their peak size and maturity. Asparagus season ends with the onset of hotter weather in late May and early June, when the shoots quickly become woody and mature into flowering stalks. Cutting new shoots as they emerge from the ground can extend the initial season. In this way the same plant may yield several cuttings over the course of a month. Be careful to cut visible stalks right at the surface so that you don't accidentally cut a stalk that has yet to emerge. Clean the stalks, tie them into a bundle, and cook them standing up in a covered pot with enough water to cover the bottom. The tougher bases of the stalks will cook in the boiling water while the more tender upper parts of the stalk will steam.

By the time hot weather settles in, the buds on the new shoots will open quickly and the shoots themselves become tough, indicating it's time to let the shoot mature into a flowering stalk. Older stalks are mildly toxic, so only eat ones that are the size of cultivated asparagus. The mature stalk will photosynthesize all summer and ensure the health of the plant so that it can send up shoots again next spring. Asparagus is actually a relative of the lily and produces flowers typical of the lily family. Plants are either male or female, with both sexes producing flowers. The red berries produced by female asparagus plants are poisonous to humans but eaten by birds that spread their seeds throughout the countryside.

Lamb's Quarter (White Goosefoot, Pigweed)

Chenopodium species
Native and non-native
Annual forb



CAUTION: Lamb's quarter growing in fertilized or polluted soil will absorb and concentrate nitrates in its tissue, making it dangerous to consume. Never eat lamb's quarter in or on the edge of farm fields that have been fertilized with nitrogen fertilizer, which includes nearly every farm field in Iowa.

Lamb's quarter is in many ways a superior alternative to the much-loved cultivated green spinach. It is in the same genus (*Chenopodium*) as chard, beets and many other edible plants, cultivated and wild, including quinoa. There are actually many species of lamb's quarter, all of which are similar in use and appearance. Some species are native to North America and were utilized by Native Americans in the Midwest before the arrival of European species. Lamb's quarter emerges in mid-spring, often in thick patches on disturbed ground, including at the margins of gardens and lawns. Lamb's quarter is very common and not difficult to find. It's also easy to gather. In a thick patch of lamb's quarter in mid-spring, one can pick a pound of leaves in a half hour to forty five minutes. Along with dandelions, lamb's quarter is one of the most nutritious foods available, wild or cultivated. It contains beta carotene, calcium, potassium, more iron than spinach, trace minerals, vitamin C, and fiber.

Lamb's quarters many names are indicative of its rich history as a common edible green. The name "white goosefoot" comes from the leaf's white underside and its resemblance to a goosefoot.

It shares the name “pigweed” with its edible relative amaranth because pigs eat it. Other names include “fat-hen”, probably for similar reasons to pigweed, “dungweed”, for its tendency to colonize any soil including manure, and “nickel greens”, for its sheer abundance.

Lamb’s quarter leaves are roughly diamond shaped, becoming more so as the leaves get older, and have toothed edges and an almost bluish or grayish tint. The undersides of the leaves are white and whole leaves appear mealy or dusted in white powder. This is actually a protective, waxy bloom that is often mistaken for mold or even pesticide. The first time that I saw lamb’s quarter leaves up close I was wary of this powdery coating, but in fact it’s harmless. The leaves grow on tall slender stalks that range in size from a few feet to taller than a human in favorable conditions. In the summer and fall, lamb’s quarter flowers and goes to seed, growing many short, dense flowering spikes. By the end of season these spikes turn a reddish-brown. Each plant can have up to 75,000 seeds in it and the seeds are said to remain viable for up to forty years, or even longer. It’s no wonder that lamb’s quarter is such a common and persistent weed.

Lamb’s quarter doesn’t bolt (go to seed and become bitter) in hot weather like spinach does, and its leaves remain edible right up until a killing frost, although it is best picked young, when it is less than 18 inches high. When the plant is more mature than that, pick the younger leaves that emerge at the growth point at the top of the plant. In the spring, lamb’s quarter shoots, 10 inches or smaller, can be eaten whole. Lamb’s quarter is an excellent substitute for spinach in quiches as it lends a more distinctive flavor. Lamb’s quarter is also good raw in salads or as a cooked green, steamed or sautéed briefly until wilted. Use it any way that you would spinach or other cooking greens. The leaf can be dried for winter use and reconstituted or used as a flavoring powder. Like curly dock, lamb’s quarter should only be consumed in moderation due to high levels of oxalic acid.

Purslane

Portulaca oleracea

Non-native

Perennial forb



Along with amaranth and lamb's quarter, purslane is a very common garden and farm weed, thriving in disturbed, sunny areas of bare soil. Also like amaranth and lamb's quarter, it is good-tasting, easy to prepare, and a superior source of nutrition. It has been a commonly used vegetable in Europe for centuries. Purslane first emerges in mid to late spring but new plants will sprout throughout the summer. The plant remains edible right up until it is killed by frost in the fall. It grows in thick creeping mats of reddish stems and green succulent leaves, tolerating poor, compacted soil and drought. Often a large mat of purslane can be traced back to a single stem where it can be cut and neatly bound together. Small yellow flowers bloom anytime from mid-summer through fall. The seeds, which are also edible, develop beginning in the late summer. Even after a purslane plant has been torn out of the ground, its succulent stems still contain enough water to ripen the seeds, one of the reasons why it is such an effective garden weed.

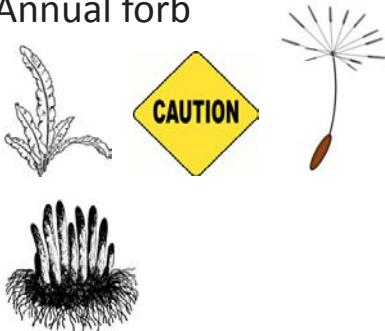
Purslane makes an excellent salad green or can be cooked and paired with potatoes. Its small succulent leaves are crunchy and tangy and can be eaten with their stems. Purslane's sharp flavor also goes well with tomatoes. It does not store well, so use it immediately or within a few days. Purslane is one of the highest known land plant source of Omega-3 fatty acids, a nutrient found in fish, canola oil, walnuts and other foods. It is one of the most freely available, cheapest and abundant sources of Omega-3 fatty

acids, required only a trip to your back yard or park to gather. Some seed catalogs sell purslane seed, and purslane is sometimes sold at farmers markets. One farm I worked at in California sold the purslane that grew wild between the rows of their irrigated vegetables at the farmer's market for several dollars a pound. I munched on it every chance I got when I took walks by the fields. At another farm I worked at in Iowa, the cultivated crop of purslane failed from what appeared to be pest pressure, while the wild crop looked as good as ever. I spent the day with another employee cutting the best specimens of the wild purslane and putting together 200 bunches of it for the farm's Community Supported Agriculture shares (weekly boxes of vegetables delivered to 'shareholders' who pay into the farm at the beginning of the season). When I dropped off the CSA shares at one site a shareholder, upon seeing the purslane in their box, immediately said with some disappointment, "this is a weed." I wondered if they had ever tasted it. It goes to show that in order to experience the full range of what is tasty and nutritious on our farms we sometimes need to give weeds a chance.

Amaranth (Pigweed)

Amaranthus species

Non-native
Annual forb



CAUTION: Like lamb's quarter, never consume amaranth growing in or on the edge of farm fields that may have been fertilized with nitrogen.

Amaranth is one of several plants in this guide that have an illustrious history of human consumption that belies their current status as maligned weeds. Amaranth was once one of the principal grains of the Aztec empire that flourished in central Mexico before the arrival of the Spaniards in 1519. Its seeds contain high-quality protein with amino acids not found in other grains produced from grasses like corn and wheat. Today, we can find amaranth growing abundantly in disturbed soils in lawns, gardens and farms, flourishing in both dry, poor soils and rich, dark garden soils. Amaranth as a commercial grain has enjoyed a resurgence recently as a health food and a low maintenance agricultural crop. It is also known for being cultivated as an ornamental with deeply red foliage and flower clusters. The name amaranth embraces species introduced from the Old World as well as native Central American species that have become naturalized in the northern parts of North America. Amaranth gives its name to an important family of plants called *Amaranthaceae*, which includes such familiar cultivated species as beets, chard, spinach, and quinoa.

Amaranth first emerges as a leafy shoot in the late spring, but new plants continue to emerge throughout the growing season. Amaranth is sometimes called pigweed, a name also applied to lamb's quarters, but the two are easily distinguished. Amaranth

leaves and long stems are generally hairy while lamb's quarter leaves are smooth and covered in a white, dusty bloom. Amaranth leaves also have more prominent veins and are longer than lamb's quarter leaves, which are more diamond-shaped and have darker green tops and lighter undersides. Like lamb's quarter, amaranth leaves are edible, although the flavor can vary from plant to plant. Their flavor has been compared to strong-tasting string beans. Young leaves can be harvested before flowering and eaten raw, steamed or sautéed with a little lemon and salt. They have a good nutty, delicate flavor like lamb's quarter and retain their texture better when cooked than some commercial greens like spinach. After flowering the leaves usually become tough and bitter. Amaranth greens are very nutritious, containing twice the protein of other leafy vegetables and are good sources of vitamin C and other nutrients.

I knew several Hispanic immigrants who harvested and ate amaranth greens almost every day during the spring. They were the ones who originally pointed this plant out to me, calling it "blero". When I discovered that "blero" was what I knew as amaranth, I realized that I had only ever heard about amaranth because of its seeds. During the summer amaranth develops a tall bristly green flower stalk that develops into hundreds of thousands of tiny black seeds during the late summer and early fall. These little seeds are amazingly tough and waterproof. They will store indefinitely and can remain viable in the soil for decades, making amaranth very difficult to eradicate as a weed but an excellent storage grain. When the seeds are ripe, they will simply fall off the stalk. You can use the seed heads fresh or dried by storing them in a sealed paper bag. To harvest, break off the seed heads and rub them over a tray. You can get rid of the chaff that comes along with the seed by winnowing it (pouring everything between two containers while letting the wind or a fan blow away the lighter chaff while leaving the heavier seeds) or by passing everything through coarse and fine screens, leaving just the seeds. Use wild amaranth like you would the commercial varieties. Cook 1 part seed and 2 parts water for about 25 minutes or until the water is absorbed. There are also hundreds of traditional ways to prepare amaranth seed that are worth exploring.

Common Wood Sorrel (Shamrock)

Oxalis montana
Native
Perennial forb



Wood sorrel is commonly mistaken for clover and vice versa. Their leaves are superficially similar but distinct upon a closer look. Clover leaves are distinctly lobed and have a grayish v-shaped pattern across the top of the leaf called a chevron, while wood sorrel leaves are notched and heart shaped, without any patterning. Wood sorrel leaves are also often creased along the mid-vein, as if they have been folded in half. The leaves generally appear in threes. Wood sorrel is also called shamrock and serves as a symbol for Ireland, thanks to the early Christian missionary Saint Patrick. He explained the concept of the Christian Trinity to a pagan chief by using wood sorrel's three-parted leaf.

Wood sorrel is often the first edible plant people learn as a child, sometimes without anyone teaching them. Its distinctive sour flavor is surprising and impresses both children and adults. It's a great teaching plant because it's well known, easy to identify with its distinctive heart-shaped leaves, and has an interesting, sharp flavor. Wood sorrel grows in moist, partially shaded areas such as open woodlands, field edges, and in the shadow of buildings. Like many species in this guide, you can find it almost anywhere, from cracks in downtown sidewalks to forest floors in nature preserves. While the plant itself seems delicate with its slender stem and slight leaves, as a species wood sorrel is a survivor. It forms colonies of plants that grow from underground rhizomes. Tiny yellow blossoms emerge beginning in mid-summer, followed by small, pointed fruits that resemble miniature okras or unripe bananas. Both the blossoms and the fruits are edible, with the

fruits having an even more sharp, sour flavor than the leaves. The sour flavor comes from oxalic acid (hence the genus name *oxalis*) found in many other edibles including curly dock, lamb's quarter, and sumac.

Wood sorrel is excellent throughout the growing season as a salad green or used in soups, and it is always a refreshing trail nibble. Native Americans used it to season meat and as a thirst quencher on hot days. As its lemon flavor suggests, it provides plenty of vitamin C.

Jewel Weed
(Touch-me-not)
Impatiens species
Native
Annual forb



CAUTION: You should never consume jewelweed raw, due to its high selenium content. While it is possible to boil young jewelweed shoots that first emerge in the spring and consume them, the shoots shrink drastically and the process is too labor-intensive to really be worth the time and energy. The cooking liquid produced by boiling the shoots should NEVER be used internally. You can be poisoned by the very high selenium content.

Jewelweed does not always grow where there is poison ivy, but there is almost always poison ivy growing where there is jewelweed. I learned this axiom from my mother, and it turns out there is a simple explanation behind this piece of folk wisdom; jewelweed and poison ivy favor the same moist, partially shaded habitats, but poison ivy will also thrive in some places that jewelweed does not, including near the seashore and in dry, sandy soil. If you happen to come in contact with poison ivy in the first kind of habitat, it is highly likely that there is jewelweed nearby. We can be thankful for this, because jewelweed is poison ivy's natural antidote.

Jewelweed is easily identified by its succulent translucent stem, extremely shallow roots, showy trumpet-like orange flowers with red spots, and its arrangement of branched, coarsely toothed, elliptical leaves at the top of the stem. The stem has thickened nodes along its length and is covered in a pale blue green waxy

bloom that gives it a distinctive look. Jewelweed is often found in thick patches on swampy or damp shaded ground. It can grow up to five feet tall but is usually shorter, from knee to hip height. It first emerges in mid to late spring and lives throughout the growing season.

Jewelweed gets its name because the waxy coating on its leaves repels water and causes morning dew or rain drops to bead together and appear like tiny jewels in the sunlight. The undersides of the leaves turn silvery when completely wet, a neat trick to show kids. The best part about jewelweed, though, is the clear, watery juice inside its succulent stems, which can be used to treat and even prevent poison ivy. Apply jewelweed juice to an affected area immediately after contact with poison ivy (the sooner the better), before the rash appears, and you are less likely to get a rash. The reason, according to research done at Rutgers University, is that jewelweed contains a chemical that binds to the same molecular location on skin cells that is affected by urushiol, the irritating compound found in poison ivy. In addition to its preventative properties, the juice can be used to treat poison ivy rashes that have already formed. Jewelweed has other applications; it's good for relief of bee and wasp stings, mosquito bites, and nettle stings. If applied immediately for fifteen minutes, it will stop itching and irritation and prevent swelling. It can also be used to treat minor burns, cuts, sores, bruises and other skin irritations as well as skin conditions such as warts, fungal infections, eczema and acne. Jewelweed happens to contain an anti-inflammatory and fungicide that is the active ingredient in hemorrhoid cream.

The other name, touch-me-not, seems strange considering its healing properties. The name "touch-me-not", along with "impatiens", actually comes from the small seed pods that develop in the fall, which when touched will explode, sending out seeds and curled-up fragments of the seed pod. The seeds are actually edible and tasty, though too small and inefficient to gather to be anything more than a snack.

Basswood (Linden)

Tilia americana

Native
Tree



Basswoods are quite common in populated areas and frequently planted in yards and parks. They are also abundant in hardwood forests in eastern North America. There are several native species as well as non-native species sometimes planted as ornamentals. One of the distinct identifying features of basswood is the long, light colored, tongue-shaped 'bracts' that grow on each developing flower cluster in the spring. The bracts develop before the flowers open and persist after flowering, sometimes into the winter. Basswood leaves are also distinctive: alternate, toothed, wide and almost heart-shaped but asymmetrical. I have always spotted basswoods because of their leaves.

Basswoods are probably most well known for the white clusters of flowers that emerge in the late spring and early summer after the leaves have formed, taking many weeks to develop and open. Once they do open, basswood flowers give off an unmistakable and wonderful fragrance that, with enough trees, can perfume a whole city block. These fragrant flowers are a favorite of bees. A handful of basswood flowers plucked from the stem can be steeped in hot water to produce a wonderful, fragrant tea. This tea is popular in Europe but mostly unknown in the United States. A strong tea is considered relaxing and a remedy for headaches and insomnia as well as a treatment for mucus congestion and hoarseness.

(Continued on page 41)



Amaranth



Basswood



Black Raspberry



Black Raspberry



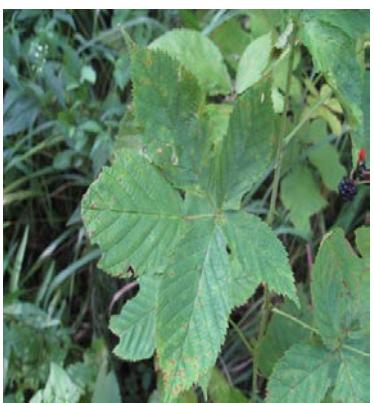
Black Walnut



Black Walnut



Common Blackberry



Common Blackberry



Common Blackberry



Common Wood Sorrel



Common Wood Sorrel



Curly Dock



Curly Dock



Dandelion



Dandelion



Dandelion



Hackberry



Hackberry



Hackberry



Jewel Weed



Jewel Weed



Jewel Weed



Juneberry



Juneberry



Lamb's Quarter



Lamb's Quarter



Plantain



Purslane



Purslane



Red Clover



Red Clover



Redbud



Redbud



Shagbark Hickory



Shagbark Hickory



Shagbark Hickory



Staghorn Sumac



Smooth Sumac



Smooth Sumac



Staghorn Sumac



White Clover



White Mulberry



White Mulberry



Wild Asparagus



Wild Asparagus



Wild Parsnip



Wild Parsnip



Wild Parsnip

Basswood (Linden) continued

The young leaves, when they are just unfurling from their buds, are considered an excellent salad green. They remain tender and edible while they are light green and shiny and up to half the size of the fully grown leaf. After this stage they begin to become tough, unpalatable, and unappealing, but not dangerous. As long as they are tender enough to be easily pinched off, they are still good to eat. They are available in great abundance starting in mid-spring and can be eaten cooked or raw.

The name basswood comes from a corruption of the word ‘bast’, which means rope or fiber. Native Americans used the tough, fibrous inner bark of young trees to make a strong rope and to weave baskets.

Red & White Clover

Trifolium pratense & repens

Native and non-native

Perennial forb



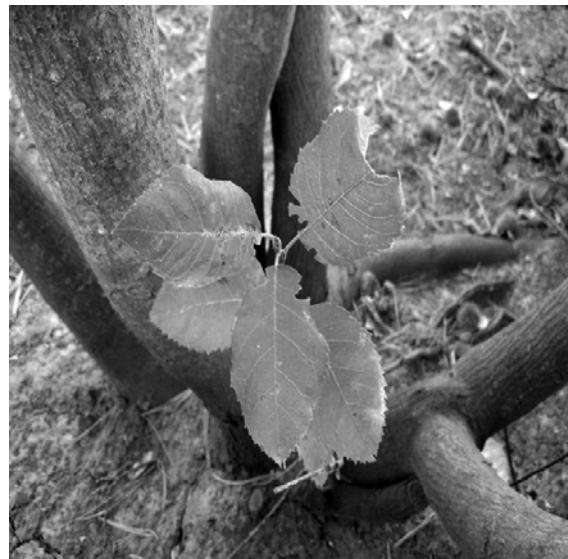
Clover is a plant that is probably as familiar as dandelion, although many may not know its name. It's a common hay and forage crop for livestock. Like dandelions, red clover is another European species that has become ubiquitous and naturalized on the North American continent. It's even the state flower of Vermont. White clover, on the other hand, is a native to North America. White clover flowers in lawns and parks and red clover flowers in the countryside and along roadsides are the successors to the yellow dandelion flowers that blanket green spaces earlier in the spring. Red clover grows taller than white clover so it tends to be found in areas that are mowed less frequently, while white clover will be found anywhere there is red clover in addition to frequently mowed areas.

Clover leaves are three-parted, although we have all heard stories of or seen four leaf clovers. Each leaf is marked by a grayish v-shaped mark called a chevron. Clover can be confused with alfalfa, another forage crop which is edible by humans. The spherical blossoms of both white and red clover are made up of many tiny flowers. If these flowers are pulled out individually, you can taste the dab of sweetness at their base. Clovers are actually legumes, which means that they fix nitrogen in their roots. This gives their flowers and leaves protein content and makes them a complement to whole grains.

Unlike the relatively brief glory of dandelions (although some

dandelion flowers can usually be found somewhere all season), clover flowers persist well into the summer and fall. I found white clover plants still in flower in early November. The beautiful pink blossoms of red clover are readily visible along highways in Iowa throughout the later spring and summer. The flowers are best gathered in the late spring, however, when most of the clover is in bloom. Avoid any brown or browning flowers, which will taste bad. I like clover flowers, especially red clover flowers, as a trail nibble because they are easy to find and have a slight taste of sweetness and a pleasant vegetable chewiness. White clover flowers are lighter than red clover flowers and are better for pan-roasting. Both species can be used fresh or dry for a nutrient rich, satisfying tea or chopped fresh and added to salads. Dried flower heads can be ground and mixed with whole-grain flour to add chewiness and sweetness to baked goods. Clover leaves are also edible in the early spring, but I have read mixed opinions about their digestibility and quality. I stick to the flowers and think that they are the better part of the plant to forage.

**Juneberry
(Serviceberry)**
Amelanchier species
Native
Tree



Names abound for this diverse group of native and European woody shrubs or small trees. Juneberry, serviceberry, saskatoon, pigeonberry, shadberry, sugar pear, mountain pear, Indian pear. There are many more Native American names for the native varieties, too. The Blackfoot (for whom the berry was the most important vegetable food) simply called it “ok-kunokin” or “berry.”

The leaves of juneberries are alternate, broadly oval, about 2 inches long and have finely toothed margins that are generally denser above the middle of the leaf (see picture). During flowering the leaves fold longitudinally. In the fall they turn yellow and orange. The bark of the tree is tight, grey to blackish and smooth but usually with many small cracks and stripes. Young branches are hairy. The white to pinkish flowers emerge from late April through May, usually before the leaves appear in drooping, showy clusters. They resemble the blossoms of apple trees, a relative of juneberries. The fruits that follow the flowers ripen from red to purple-black and are fleshy, round, and about the size of a blueberry. Like blueberries, juneberries have crowns, little five-parted frilled openings opposite the stalk.

Juneberries acquired the name for obvious reasons – its small dark purple berries generally ripen during the month of June, although on some varieties berries will ripen throughout the summer. Its other popular name, serviceberry, is reputed to originate from a time when funeral services, long delayed by frozen winter

ground, would be held at the same time the juneberry trees were in bloom. Another name for the tree that is less common today, shadbush, associates the flowers with the first run of shad migrating upstream from the ocean in coastal New England. Another uncommon name, pigeonberry, indicates the tendency of birds to devour crops of juneberries.

Today juneberries are common ornamental plants on parks, campuses and other landscaped business and residential complexes, one of several native woody plants that are planted ornamentals (see Black Walnut). They are very hardy and thrive in areas to the west and north of Iowa that have colder, longer winters and lower yearly rainfall. Grinnell College has several clusters of juneberries planted around campus – some on the north side of Goodnow Hall and others on the southeast side of the Noyce Science Center. Their short stature (usually less than 15 feet tall) makes berry picking relatively easy, although their yields can be low some years and you may need to use a step ladder or other boost to get at some the higher hanging berries.

Juneberries dry and freeze well for later use, but you will also want to keep some for fresh eating. They are sweet, juicy and contain soft seeds inside that taste reminiscent of almonds. Although they are related to apples, there are no commercial relatives so their taste can be quite surprising the first time you try them. Their taste can be similar to pears, which explains why they were sometimes called sugar pear, mountain pear or Indian pear. They are good in pies and made into jams, similar to blueberries. Like apples they contain enough of their own pectin so that you do not need to add any when making jam. They make a perfect wild substitute in blueberry muffins. They can be mixed with currants, gooseberries or rhubarb to increase acidity. The Wild Palette even suggests drying them and grinding them into a very coarse meal for adding to cakes and dumplings. They contain three times more iron and copper than the same weight in raisins. Juneberries are definitely an excellent and underappreciated fruit. So when Memorial Day has passed, start checking the trees.

White Mulberry

Morus alba

Non-native

Tree



Walking down a residential sidewalk in mid-June, mulberry season is unmistakable in the purple-black stains that cover the concrete under the trees. You might even see the stains on the ground before you notice the trees and its berries. Mulberries are a common ornamental planting in residential neighborhoods, but they are also found on field edges, in open woods, and near fresh water. White mulberries were originally introduced for the American silk industry. Mulberries ripen from red to purple black.

Mulberries are one of few trees with several distinctive leaf shapes. The leaves are roughly oval, toothed and alternate but sometimes they are lobed and sometimes they are unlobed. Some lobed leaves have one thumb-like lobe, resembling a mitten, while others have a lobe on each side. The upper surface of white mulberry leaves is shiny and feels like sandpaper while the underside of the leaf is smooth and felt-like. Mulberry blossoms appear with the leaves in mid-spring as hanging clusters of small white to green flowers. The female and male flowers hang on separate spikes, so when the flowers on a female spike are fertilized, a multiple fruit develops, made up of many smaller fruits, each forming a seed. Mulberries generally ripen during the month of June. Mulberries resemble blackberries or raspberries but mulberries grow from a tree, rather than a thorny cane.

Mulberries are easy to gather. Simply put a clean drop cloth underneath branches heavy with fruit and shake the branch to

drop the ripe berries onto the ground. Make sure not to damage the tree by shaking too violently and always get permission if doing this on someone else's tree. The sweetness of the berries depends on the tree. Mulberries' low acidity, thin skins, and high water content make them poor keepers. Use them immediately after picking or preserve them by drying, freezing or making jam. They can be used like any other berry in baked goods, sauces, or in yogurt. Adding lemon, lime, rhubarb, or other sour fruits helps to increase acidity and enhance flavor.

Black Raspberry

Rubus occidentalis

Native

Perennial



Black raspberries are an excellent wild fruit available during the early summer. Since they are so abundant, easy to spot and harvest, and similar to commercially available berries, black raspberries are well known and frequently foraged. Of the many raspberry species in the United States, black raspberries are the most common wild species around Grinnell. For information about other raspberry species you might be able to find in the wild, consult *Identifying and Harvesting Edible and Medicinal Plants* by Steve Brill or a similar guide. All raspberries are invasive and usually grow in widely distributed patches along the edges of woodlands near paths, roads, water, and fields. They can often be found in disturbed soil and on hillsides. They grow and spread by arching wooden stems called 'canes'. First year canes emerge from the perennial roots in the spring, growing straight and un-branched without producing flowers or fruits. The canes go dormant during the winter, flowering in the mid to late spring the following year, bearing fruit in the early summer and then dying at the end of their second year. The tips of the canes take root where they reach the ground, allowing the plant to spread very effectively. The canes do not have bark like trees or shrubs. Black raspberries are covered in many curved thorns and a protective bloom that gives them a greenish-blue color. The leaves are palmate-compound and three parted. The leaflets are long, pointed, double toothed and white and hairy underneath.

Black raspberries are actually a compound fruit, composed of

many individual drupes with their own small seeds that form from one flower with many pistils (ovaries). They ripen from red to a dark purple or black near the end of June and beginning of July. I have found that Fourth of July can be a good time to pick black raspberries. When the berries are picked, they leave behind a cone-shaped structure on the branch called a receptacle and appear hollow in the middle, looking almost like a beehive. This is one of the key differences between black raspberries and blackberries. Black raspberry leaves superficially resemble poison ivy, but poison ivy does not have thorns or coarsely toothed leaves.

Black raspberries are sweet and juicy and taste good by themselves, but they also make excellent jam, are good to bake with, and freeze well. They are quite perishable and should be used within a couple of days of harvesting. Black raspberries are not only good tasting, but they contain many vitamins and minerals, including enough iron that they were traditionally used as a cure for anemia brought on by iron deficiency. Black raspberry leaves can be used as a tea which is considered to have medicinal properties. Use only leaves that are totally fresh or completely dried. Do not use wilted leaves, which can be harmful.

Common Blackberry

Rubus allegheniensis

Non-native

Perennial



Blackberries are the summer successors to black raspberries. Blackberries share the large and diverse genus *Rubus* with raspberries and have many similar characteristics. They are invasive and spread quite aggressively, which can be a problem for land managers who are trying to restore native habitats. They grow in the same habitats as black raspberries, favoring old fields, thickets, roadsides, fencerows, hillsides, young woodlands, and the edges of wetlands. Like raspberries, they grow and spread by thorny canes, produce aggregate fruits, and have similar leaves. Some of the differences: blackberry leaves are palmate-compound but generally five parted, as opposed to the three parted leaves of raspberries. Blackberry canes are also darker and pricklier than raspberry canes. Last, when blackberries are picked, they take the receptacle with them so they don't appear hollow like raspberries.

Blackberry flowers appear later than black raspberries, in the late spring and early summer, and blackberries are in season about a month later than black raspberries, in late July to early August, sometimes the hottest, muggiest part of the summer. Wait for a cooler day with lower humidity to go out gathering. Wear pants, high socks, a long sleeved shirt, and a hat. This will protect you from the thorns, poison ivy, sun, and mosquitoes you are likely to encounter on any serious blackberry-picking trip. Pick in dense thickets rather than moving between separate plants. This will save time and energy, allowing you to pick a large quantity of berries in a shorter amount of time. Make sure not to wait too

long to go foraging. Blackberries do not keep well and will ferment on the cane if left too long. You will know which berries have passed as you sample along the way.

Blackberries are not as sweet as black raspberries, and I have noticed that their flavor can be washed out by rain in the same way as mulberries, which they resemble. Their low sugar content means that you will sometimes have to add sweetener when using them in desserts. For this reason, blackberries pair well with apples. They make good smoothies with yogurt or milk. For preserving, try blackberry jam or simply freeze them. Like black raspberries, they are very nutritious, containing high levels of potassium, vitamin C, and beta carotene. Also like raspberries, blackberry leaves can be used as a tea and are known for their medicinal properties.

Staghorn & Smooth Sumac

Rhus typhina & glabra

Native

Perennial

Small tree



Sumacs are a very distinctive genus of native shrubs or small trees that grow in dense stands or colonies and bear upright clusters of hard, red berries. Sumacs develop cones of greenish flowers on their top branches in mid-summer, which subsequently produce clusters of small, dry berries by late summer. These berry clusters will often persist on the trees well into the winter and even the next spring, making them easy to identify almost any time of year. Sumacs can often be spotted growing at the edges of highways and roads, thriving in a wide array of conditions, including dry and poor soils that other plants cannot tolerate. They prefer sunny areas and will not tolerate shade. Sumacs reproduce by cloning, growing in colonies with the tallest, oldest plants near the center and the shorter, younger plants towards the outside. They are generally twenty feet tall or less, but some stands will grow higher than thirty feet. The lemon-scented leaves are alternate and feather-compound, with many narrow, pointed leaflets that turn from green to a brilliant red in the fall. The stems, when broken, bleed a white, milky sap that actually contains latex.

Edible sumacs should not be confused with poison sumac, an unrelated plant that is infamous for its persistent painful rashes, similar to but worse than those caused by its relatives poison ivy and poison oak. Poison sumac bears drooping clusters of white, hairless, waxy berries, as opposed to the red upright hairy fruit clusters of edible sumacs. Poison sumac has hairless, shiny leaves that are widely spaced apart, as opposed to the close spacing of

edible sumac leaflets, and poison sumac rarely grows in dense stands the way that edible sumac does. As long as they have red or reddish orange upright berry clusters, edible sumacs are safe to consume.

I encountered two types of sumac around Grinnell, wild and planted ornamenteally. Staghorn sumac has tightly clustered, hairy fruiting heads and velvety branches. The compact fruiting heads hold up quite well into the autumn and winter, which makes them attractive ornamental plants. The hairs on the fruits shed water, which allows them to retain their sour flavor well into the autumn and winter. Smooth sumac, with its looser fruiting heads and hairless branches, seemed more common in the wild, growing along roadsides and in old fields. These fruiting clusters will tend to lose much of their flavor during fall rains and thus it's more important to harvest them as they ripen in the late summer and early fall. Visit sumac trees early and often to determine the best season for harvest. The first clusters can be ready as soon as July, with most coming ripe in early August. By late August, the heads may already have lost much of their flavor due to rain. In addition, flavor can vary quite widely from cluster to cluster, stand to stand, and season to season. When harvesting, snap off or cut the whole berry cluster at its base.

Sumac berries have a strong, tart flavor, containing ascorbic acid (vitamin C) and oxalic acid. These berries, when crushed and soaked in cold water, will make an interesting reddish-pink sour drink that's often called sumac lemonade or sumac-ade. Older guides may suggest using hot water, but only use cold water to make sumac lemonade. Hot water destroys the vitamin C in the berries and washes bitter-tasting tannins into the water. After steeping, the drink should be strained through cheese cloth to remove the berries and the small, fine hairs that come off the berries. You can add sugar to sumac lemonade to make it sweeter or steep several batches of fresh berries in the same water to make a concentrate, which can be substituted for lemon or cranberry juice. The concentrate can be frozen in ice-cubes for long-term storage.

Black Walnut

Juglans nigra

Native
Tree



Black walnuts are a North American species, the counterpart to the English walnut, a European species that produces the large edible nuts found in stores and at markets. Black walnuts have a much stronger taste than the mild flavor of English walnuts – if you are expecting them to taste like walnuts you have had before, then you will be very surprised with the intense, fruity flavor of black walnuts. They are tall trees with dark, deeply furrowed bark. The leaves are long and feather-compound, consisting of numerous narrow, unevenly paired leaflets. There is usually no single terminating leaflet at the tip of each leaf (see insert). The leaflets are downy underneath and are lemon-scented when crushed. The bases of the leaflets are uneven, like basswood leaves. The male flowers are conspicuous hanging catkins.

The distinctive fruits of black walnuts are round, lime green and lemon-scented like the leaflets. They range in size from a golf ball to a tennis ball. Walnut trees have good years and bad years, and yield can sometimes vary wildly from place to place. The flesh of the fruits, when crushed, is wet and will stain hands and clothes a greenish brown, which can persist for weeks. It makes a dye and can be used as shoe polish. Lemon juice, when applied quickly, can help remove the stain. My first encounter with black walnuts involved dehusking the nut to see what was inside, resulting in stained hands but a valuable lesson learned.

Of all the species in this guide, walnuts are the most difficult to process. You will need some gloves and shoes you do not mind

staining. Gather the nuts as they fall to the ground in the late summer and early autumn, checking them carefully for holes in the husk that indicate insect larvae have tunneled inside. Stomp on the fruits on a sidewalk or other hard surface to remove the wet fleshy husks. Handle the wet nuts with gloves. They can be dried immediately by putting them on a cookie sheet in an oven on the lowest temperature with the door ajar for several hours. Walnuts can also be dried on newspaper in a warm, ventilated area, protected from squirrels, over several weeks. Make sure they are completely dry before storing them in a sealed paper bag, or they will quickly become moldy. In addition to preventing mold, drying matures the nuts, improves their quality, and keeps them from staining your hands when handled.

There are a couple of ways to crack the nuts, which have very hard shells. You can buy a special black-walnut cracker if you expect to process a lot of black walnuts. Otherwise, use a hammer on hard surface or a vise to crack them open, covering the nut with a clean rag so that slivers of shell don't fly in all directions. When using the vise, squeeze the nuts at the tip and base rather than on the sides. Use a nutpick to remove the meat from within the shell. This can be a difficult and frustrating process, but it is well worth the reward. After cracking, walnuts will go rancid, so store them in the refrigerator in a closed container for several weeks or freeze them for several months. Black walnuts can be used just like English walnuts but more sparingly. In general, use 1 part black walnut to 4 parts English walnuts in a recipe so that the strong, fruity flavor doesn't overpower all the other ingredients. Black walnuts contain a host of nutrients, minerals and essential fatty acids. Like English walnuts, they are a good source of omega-3 fatty acids.

Shagbark Hickory

Carya ovata

Native

Tree



Related to black walnuts, hickories are an important native tree in the deciduous forests of eastern North America. Hickories are slow-growing but long-living – a mature hickory can take up to 80 years to bear nuts but can live for 250 years. Shagbark hickories are the most common species in the Grinnell area. They prefer dry, upland slopes and well-drained soils in low-lying areas and valleys. There is a large grove of shagbark hickories on the southwestern edge of the lake at Jacob Krumm Preserve in Jasper County as well as on the southern side of Rock Creek Lake near the outlet dam. Shagbark hickories acquired their name from the characteristic shaggy, peeling bark of mature trees, which comes off the trees in long, vertical strips (see insert). Younger trees have smooth bark (see insert). Their leaves are alternate and feather-compound with five opposite, toothed leaflets. Their nuts, which ripen in the late summer and early fall, are surrounded by a thick, green, 4-parted husks. I have many memories from childhood of opening the husks of hickory nuts and admiring how they separated into symmetrical quarter sections.

Timing is key with finding good hickory nuts. As the nuts fall to the ground, they are quickly gathered by squirrels and chipmunks and eaten by insect larvae that burrow through the husk into the nut. Check the husks before gathering for any small round holes, which indicate the presence of a grub inside. Rain or dampness on fallen nuts contributes to rotting. Different trees will have different quality nuts and yield varies from season to season.

After gathering, the nuts can be stored in paper bags while the husks dry and open by themselves, revealing the mature nuts inside. Like black walnuts, crack them using a hammer, vise or a nutcracker. Like black walnuts, the oils in the nuts will react with oxygen in the atmosphere and go rancid. The nuts can be stored in their shells indefinitely but shelled nuts should be stored in a closed container in the refrigerator or in the freezer if not used within a few weeks.

Hickory nuts are delicious roasted and raw and can be used like any other nut. They are also quite nutritious, high in calories from their high quality oil and containing essential fatty acids as well as protein, carbohydrates, vitamins and minerals. Like sugar maples and black walnuts, the sap of shagbark hickories can be tapped in the late winter and boiled down into syrup. The wood of hickories is known for its toughness and elasticity (hence its use as a schoolteacher's whipping stick) and is still used today for making tool handles.

Hackberry (Sugarberry)

Celtis occidentalis

Native
Tree



Hackberries are a native species that, like black walnuts, are commonly planted ornamenteally in parks. There are numerous hackberries in Grinnell's many public parks. I have always identified them from a distance by their distinctive warty, deeply ridged bark (see insert). Hackberries are a member of the elm family and are often afflicted by a non-fatal fungus called witches'-broom, which is similar to the deadly Dutch-elm disease. The "hackberry nipple galls" that frequently develop on the surface of the leaves are another identifying feature of many hackberries. While all of the elms that were planted in Midwestern communities were killed by many elm diseases, their relatives the hackberries remain.

Hackberry leaves are simple, alternate, oval, and toothed, with long, pointed tips and uneven bases, like linden leaves. In the autumn small, round, dark purple berries ripen on long, solitary stems, drying out over time. The dried berries will often persist on the trees well into the winter. For this reason, and their high calorie content, hackberries are often a very important wildlife food source, nourishing squirrels, mice, raccoons, songbirds, and turkeys. Hackberries have also been very important sources of food for human hunter-gatherers. Hackberry seeds have been found in great abundance in archaeological sites all over the world, from Indonesia to Pennsylvania. Based on its discovery with the 500,000 year old remains of *Homo erectus* in China, it may be the oldest known human plant food.

The large seed in each berry is surrounded by a thin layer of sweet, dry flesh. Because the berries can be so sparse on the trees and there is so little flesh per berry, hackberries are not the most satisfying tree to forage. Their yield is also quite variable from year to year, and ripe berries will disappear quicker in autumn when other food sources for wild animals, such as acorns and hickory nuts, are less abundant. Their berries are, however, delicious, with the flesh being similar in consistency and taste to a fruit leather, and great to eat as a trail nibble. They are also one of the most complete wild foods available, containing a high number of easily digestible calories from fat, carbohydrate, and protein when consumed along with the pit, which varies in hardness from crunchy to tooth-breaking depending on the tree. Depending on how hard the pit is, you can eat it right along with the sweet pulp, which makes these berries more like nuts with an edible husk. Because the berries are high in sugar and low in moisture, they store well. If allowed to dry fully they will store indefinitely.

Recipes

Baked Wild Parsnips

Adapted from *Backpacker* magazine, March 2008,
via wildmanstevebrill.com

Serves 4

3 cups wild parsnips, scrubbed and coarsely sliced (substitute part commercial parsnips if necessary)
2 tbsp. vegetable oil
1 tbsp. balsamic vinegar
 $\frac{1}{2}$ tsp. thyme
 $\frac{1}{2}$ tsp. rosemary
dash of cayenne hot pepper or 1/4 tsp. black pepper
 $\frac{1}{4}$ tsp. salt

Pre-heat oven to 375°. Toss sliced parsnips in a bowl with all other ingredients until evenly coated. Spread out parsnips on a baking sheet and bake for 30 to 40 minutes or until soft but browned and crisp on the outside.

Basswood Flower Tea

Adapted from *Nature's Garden*, by Samuel Thayer

Pour 1 cup of boiling water over 1 teaspoon of basswood flowers and let steep for 10 minutes.

Black Walnut Kale Pesto

Adapted from a recipe by Kim O'Donnell, Washington Post

Makes about 1 cup

Keeps up to a week. Freezes well in sealed container.

For $\frac{1}{2}$ pound of pasta, use 2-3 tablespoons of pesto.

1 – 2 tbsp. black walnuts, chopped
 $\frac{1}{4}$ cup – $\frac{1}{2}$ cup English walnuts, chopped
 $1\frac{1}{2}$ - 2 tsp. sea salt
 $\frac{1}{2}$ lb. kale (preferably lacinato or dinosaur kale), stems removed, coarsely chopped (about 1 medium bunch)
2 cloves garlic, minced
 $\frac{1}{2}$ cup olive oil
 $\frac{1}{2}$ cup grated Parmesan cheese
Ground black pepper to taste

Toast chopped walnuts in dry, heavy skillet over high heat, stirring constantly until they start to brown and become fragrant. Or put them on a baking sheet in the oven at 325°, but watch them to make sure they don't burn.

Bring 2 quarts of water to boil. Add 1 teaspoon salt and kale. Cook uncovered until tender, about 5 to 10 minutes. Remove from pot and drain.

In blender or food processor, add garlic, walnuts, and drained kale. Whiz until well combined. Pour oil in steady stream and pulse till combined. Add ½ teaspoon salt, pulse again, then taste. Add 1 teaspoon of salt if necessary. Spoon pesto into a bowl, stir in cheese and pepper

Clover Corn Bread

Adapted from *Identifying and Harvesting Edible and Medicinal Plants*, by Steve Brill

Makes 1 loaf

3 tbsp. vinegar
½ cup oil
2 eggs
1 ½ cups apple juice
1 tbsp. honey or maple syrup
1 cup whole wheat flour
2 cups cornmeal
1 cup finely chopped dried or fresh clover flowers
1 tsp. salt
1 tsp. cream of tartar
2 ½ tsp. baking soda

Pre-heat oven to 300°. Mix wet ingredients in a medium bowl. In a larger bowl, combine the dry ingredients and sift together. Add the liquid to dry and mix together. Place in an oiled baking pan. Bake in pre-heated 300° oven for 20 to 30 minutes or until a knife inserted into the center comes out clean.

Curly Dock-Cheese Rolls in Tomato Sauce

Adapted from *Identifying and Harvesting Edible and Medicinal Plants*, by

Steve Brill

Serves 8-10

3 cups ricotta cheese

6-7 scallions, thinly sliced

3 cloves garlic, minced

1 tsp dried oregano or 1 tbsp fresh oregano

1 tsp dried basil or 1 tbsp fresh, chopped basil

1 tsp pepper

½ cup chopped black or English walnuts (optional)

15-30 dock leaves

3-4 cups tomato sauce

Mix everything together except curly dock and tomato sauce to make the filing. Any curly dock leaves less than 3 inches long should be chopped up and mixed into the filing.

Depending on the size of the leaf, put 1 to 2 tablespoons of filling on the wider end of the leaf. Roll the leaf around the filling. Place on an oiled baking sheet and pour the tomato sauce over the rolls. Bake at 300° for 10 to 15 minutes, or until the dock leaves are soft and beginning to shrink.

Variation – Wild Stuffed Peppers

Use same ingredients as above. Chop up all the curly dock leaves and mix with the filling, including tomato sauce. Stuff 10 green or red bell peppers with filling and bake for 15 to 20 minutes, or until the peppers are soft.

Dandelion Saute

Adapted from *Identifying and Harvesting Edible and Medicinal Plants*, by

Steve Brill

Serves 4-6

3 cups chopped onions
3 tbsp. olive oil
4 cups chopped dandelion leaves
2 cups grated carrots
3 garlic cloves or more, minced
1 tbsp. cooking wine
1 tbsp. tamari soy sauce
black pepper to taste (optional)

Sauté onions in oil till soft, then add all other ingredients. Cook on medium heat for 10 to 20 minutes until all the flavors are blended.

Hackberry Candy

Adapted from *Nature's Garden*, by Samuel Thayer

Crush the whole fruit in a mortar and pestle until the pit is broken into tiny pieces. The shell fragments, if small enough, can be swallowed whole. Spread the stiff, mashed hackberries onto a flat surface and cut it into pieces. The mashed hackberries can also be mixed with other kinds of dry berries. The candy will keep for months at room temperature but its best freshly made. Euell Gibbons, author of *Stalking the Wild Asparagus*, pounded hackberries and shelled hickory nuts together as a child to make a wild candy bar.

Juneberry Buckle

Adapted from *The Village Voice*, <http://joeyrandall.blogspot.com>

Serves 8-10

1/2 cup unsalted butter, softened
1/2 cup sugar
1 large egg
2 cups flour (pastry)
2 1/2 tsp. baking powder
1/4 tsp. salt
1/2 cup milk
2 cup ripe, washed juneberries, plus 1 Tbsp. flour

Cinnamon Crumbs

1/2 cup sugar
1/2 cup flour (pastry)
1/2 tsp. cinnamon
1/4 cup room temperature butter (unsalted)

Preheat oven to 350°. Thoroughly grease an 11 ½" x 7" x 1 ½" baking pan with butter or vegetable oil. Mix softened butter and sugar together. Add egg and mix well. Gradually sift flour, baking powder and salt into wet mixture, alternating with milk. Coat juneberries with flour by tossing in a bowl and then gently fold them into batter. Pour batter into greased pan. Top with cinnamon crumbs and bake 45 to 50 minutes or until a butter knife inserted into the pan comes out clean. Serve warm with whipped cream.

Lamb's Quarter Quiche

Adapted from tasteofhome.com by Dorothy Holderbaum

Serves 6-8

1 medium onion, chopped
2 tbsp. canola or vegetable oil
4 cups chopped lamb's quarter (tender new leaves)
3 eggs
1 2/3 cups milk or 12 oz. can of evaporated milk
½ tsp. salt
½ tsp. pepper
2 cups (8 oz.) shredded cheddar cheese, one cup divided out for topping
2 unbaked pie pastry (shallow 9 inches)

Pre-heat oven to 400°. In a medium skillet, sauté onion in oil until translucent. Add chopped lamb's quarter and cook until wilted, stirring often. Cover skillet and remove from heat. In a medium bowl, beat eggs and milk until thoroughly mixed. Stir in salt, pepper, 1 cup of cheese, lamb's quarter and onion. Pour into pie shells in shallow 9 inch pie pans and sprinkle with remaining cup of cheese. Bake at 400° for 10 minutes. Reduce heat to 350° and bake another 30 minutes or until a knife inserted near center comes out clean. Remove from oven and let stand 5-10 minutes before cutting.

Mulberry Muffins

Adapted from allrecipes.com

Makes a dozen muffins

1 ½ cups all-purpose or pastry flour
½ cup sugar
1 tsp. baking powder
½ tsp. baking soda
1 pinch salt
½ cup sour cream or thick yogurt
¼ cup milk
2 tbsp. applesauce
1 egg
½ tsp. almond extract
½ cup mulberries

Preheat oven to 400°. Grease two muffin tins or use paper muffin liners.

In a medium bowl, combine dry ingredients. In a larger bowl, mix together wet ingredients. Stir in dry mixture until batter is smooth and then fold in mulberries. Spoon batter into prepared muffin tins.

Bake in preheated oven for 25 to 30 minutes or until a knife inserted into center of a muffin comes out clean.

Plantain Cocktail

Adapted from *Fresh*, by Sergei and Valya Boutenko, Serves 2

Handful of plantain leaves
3 apples, chopped
½ of a lime, with peel
Thumb-sized piece of fresh ginger

Use a juicer with all ingredients. Chill before serving or add ice cubes.
Decorate with edible flowers like redbud blossoms, if desired.

Purslane and Tomato Salad

Adapted from *A Year in a Vegetarian Kitchen*, by Jack Bishop

1 garlic clove, crushed and peeled
¼ lb. purslane, cut into 1" lengths (about 4 cups)
1 cup cherry tomatoes, halved, or 1 tomato, cubed
1 tbsp lemon juice
1 tbsp olive oil
salt and pepper to taste

Use garlic clove to rub the interior of the serving bowl. Put purslane and tomato in bowl, add lemon and oil. Sprinkle with salt and pepper to taste. Toss to coat evenly. Add diced sweet pepper, if desired. Serve alone or with salad greens.

Redbud Oatmeal

Adapted from *Identifying and Harvesting Edible and Medicinal Plants*, by

Steve Brill

Serves 4-6

¾ cup oatmeal
½ cup raisins
2 cups milk
½ cup redbud flowers

Combine oatmeal, raisins, and milk in a covered saucepan, bring to a boil, then simmer on low heat for 5 minutes, stirring often. Once the oatmeal thickens, remove from heat, add flowers, cover the pan and let sit for about 15 minutes before serving.

Scrambled Eggs with Wild Asparagus (Revuelto de Esparragos Trigueros)

Adapted spanishfood.about.com by Lisa and Tony Sierra

4-6 servings

According to the website, wild asparagus or “esparagos trigueros” is commonly found in Spain, especially in the northern part of the country. It’s a widely used ingredient in egg dishes.

3/4 lb. wild asparagus
3 tbsp. extra virgin olive oil
2 cloves garlic, finely chopped
8 eggs, beaten
1/2 tsp. paprika
salt to taste

Rinse asparagus and trim ends. Tie stalks into a bundle and place them standing in large stockpot with enough water to cover the bottom. Place a lid on the pot and bring the water to a boil, allowing the asparagus to cook until the tops are tender. Remove the cooked asparagus from the pot and allow to cool for a few minutes. When cool enough to touch, cut stalks into pieces. Heat olive oil in a 10-inch frying pan and sauté the finely chopped garlic. Add the asparagus and cook until it is lightly brown. Add salt to taste.

Add paprika to beaten eggs and pour into frying pan with garlic and asparagus. Turn heat on low and stir until the eggs begin to cook. You can put a top on the pan at this point so that the eggs cook more thoroughly. Once the eggs are done, turn off the heat and serve. If you would like to brown the eggs on the top, turn on the broiler in your oven and place the frying pan (never put a Teflon coated pan in the oven) with egg mixture in the oven. Keep a close watch to make sure you don’t burn the eggs. If the pan has a plastic handle, keep the oven door open and leave the handle outside the oven so that it doesn’t melt.

Shredded Brussels Sprouts with Maple Hickory Nuts

Adapted from *Gourmet* magazine, November 2003 via epicurious.com
8-10 servings

Note: Nuts can be heated and glazed a day ahead of time and cooled, then kept covered in a plastic container at room temperature. Brussels sprouts can also be sliced one day ahead and chilled in a sealed plastic bag or plastic container lined with paper (to prevent sogginess).

$\frac{3}{4}$ cup hickory nut halves

$\frac{1}{2}$ stick ($\frac{1}{4}$ cup) unsalted butter

1 tbs. pure maple syrup

1 tsp. salt

2 lbs. Brussels sprouts, any outer discolored leaves removed and stem ends left intact

1/4 tsp. black pepper

1 tbsp. cider vinegar

Make sure the oven rack is in the middle position and preheat oven to 350°. Toast nuts in a baking pan until fragrant and beginning to darken, about 10 minutes. Careful not to burn. While nuts are toasting, in a small saucepan, melt 1 tablespoon butter and stir in syrup and $\frac{1}{2}$ teaspoon salt. Add this maple glaze to hot nuts from the oven and toss to coat. Holding each Brussels sprout carefully by the stem end, cut into very thin slices. Toss slices in a bowl to separate layers of leaves from each other. Melt the remaining 3 tablespoons butter in a large skillet over medium high heat until foaming subsides. Sauté shredded sprouts with pepper and remaining $\frac{1}{2}$ teaspoon salt, constantly stirring, until sprouts have wilted but are still slightly crisp, about 3 to 5 minutes. Add vinegar and sauté, stirring for another minute. Add hickory nuts and any glaze in baking pan and sauté, stirring for one more minute. Remove from heat.

Sumac-ade

Adapted from *The Forager's Harvest*, by Samuel Thayer

Put about six medium berry cluster (cleaned of debris) in a pitcher and pour cold water over them. Crush the berries up a little by hand and let the pitcher sit for a while. The longer the berries steep, the stronger the subsequent drink. When the flavor reaches the desired strength, strain through a cheesecloth to remove seeds and hairs. Sumac-ade is pleasantly tart with a light pink color, somewhat like mild lemonade. Add sugar for a sweeter drink.

Wildberry Jam (for black raspberries or blackberries)

From *Ball Blue Book of Preserving*

Makes about 3 pints

9 cups crushed berries

6 cups sugar

Wash berries thoroughly. Crush the berries using a potato masher or run them briefly through a food processor. Measure the amount of crushed berries and then combine with sugar in a large saucepot. Bring slowly to a boil, stirring until sugar dissolves. Cook rapidly to gelling point. As mixture thickens, stir frequently to prevent sticking. To test for gelling, scoop out some of the mixture with a cold spoon (put in freezer beforehand) and tip the spoon to see if it is runny. If the mixture moves as one mass, it has gelled. Remove from heat and skim foam if necessary (foam may interfere with canning). If not canning, set aside jam to cool and set. Refrigerate and use within a few weeks.

For canning, ladle jam immediately into hot pint or half-pint jars, leaving $\frac{1}{4}$ inch headspace. Remove air bubbles by sliding a sterilized utensil around the edges of the jar. Wipe the rim of the jars with a clean cloth and adjust two-piece caps. Process 15 minutes in a boiling-water canner. Remove from canner and set aside to cool for at least 12 hours.

If you use less sugar, the jam will not set as well. In addition, canning guides caution using less sugar than is called for in recipes because this can lead to spoilage. If you don't care about the jam setting or canning, feel free to reduce the amount of sugar.

If seedless jam is preferred, crushed berries may be heated until soft and pressed through a sieve or food mill; measure pulp and proceed as above.

Wilted Amaranth Greens

Adapted from *The Wild Palate: A Serious Wild Foods Cookbook* by Nancy and Walter Hall

This recipe can be used for other wild greens.

- 1 large handful of amaranth leaves (about 2 cups)
- 3 tbsp. vegetable oil
- 1 tbsp. lemon juice
- 1 tbsp. vinegar
- 3 eggs, hard-boiled (optional)

In a medium saucepan, cover amaranth leaves in water and bring to a boil. Turn down heat and simmer for 10 minutes. Drain leaves well. Heat oil in a medium skillet till it is very hot but not smoking. Lay greens flat in skillet for 3-4 minutes. Be careful of hot, splashing oil. Sprinkle greens with lemon juice and vinegar. Serve with hard-boiled eggs, if desired.

Wood Sorrel Lemonade

Adapted from *Nature's Garden* by Samuel Thayer

Gather a generous handful of wood sorrel leaves (about 2 cups). Rinse leaves thoroughly and chop them up very finely with a knife or food processor. Steep chopped leaves in cold water for several hours. Strain out leaves and serve cold.

Annotated References

I used the following guides extensively in writing the text of this guide and recommend them to anyone interested in delving more deeply into foraging wild edible plants. They are listed in a rough order of importance. Entries with an asterisk (*) next to them are available at the Drake Community Library in Grinnell.

There are many other useful guides available, so don't limit yourself to this list. Always take what a guide says with a grain of salt and cross-reference claims you find in one guide, especially guides that are older. I have found quite a range of opinions about the same plants in different guides and some guides are much better than others at explaining their reasoning. In general, I am more inclined to trust newer guides with better descriptions of individual plants.

Identifying and Harvesting Edible and Medicinal Plants in Wild and Not-So-Wild Places. Steve Brill.

The Forager's Harvest: A Guide to Identifying, Harvesting, and Preparing Edible Wild Plants. Samuel Thayer. Birchwood, WI: Forager's Harvest Press, 2006.

Nature's Garden: A Guide to Identifying, Harvesting, and Preparing Edible Wild Plants. Samuel Thayer. Birchwood, WI: Forager's Harvest Press, 2010.

**Stalking the Wild Asparagus.* Euell Gibbons. New York: David McKay Company, Inc., 1962.

Stalking the Healthful Herbs. Euell Gibbons. New York: David McKay Company, Inc., 1966.

**Field Guide to North American Edible Wild Plants.* Thomas S. Elias and Peter A Dykeman. New York: Outdoor Life Books, 1982.

Edible Wild Plants: Eastern/Central North America. Lee Allen Peterson. New York: Houghton Mifflin Company, 1977.

**Field Guide to Edible Wild Plants*. Bradford Angier. Harrisburg, PA: Stackpole Books, 1974.

**The Wild Palate: A Serious Wild Foods Cookbook*. Nancy and Walter Hall. Emmaus, PA: Rodale Press, 1980.

Provides culinary descriptions of different wild foods and recipes using wild foods, both plant and animal.

<http://www.amazon.com/Edible-Wild-Plants-Prairie-Ethnobotanical/dp/0700603255>

An excellent reference for exploring the history and culinary uses of native prairie species.

The Encyclopedia of Edible Plants of North America: Nature's Green Feast. Francois Couplan, Ph.D. New Canaan, CT: Keats Publishing, 1998.

Should be used as a reference in conjunction with a field guide. Rather than giving identifying characteristics, describes subspecies, origins, edibility, and historical use of particular species.

**Feasting for Free on Wild Edibles*. Bradford Angier. Harrisburg, PA: Stackpole Books, 1966 and 1969.

**Green Immigrants: Plants That Transformed America*. Claire Shaver Haughton. New York and London: Harcourt Brace Jovanovich, Inc., 1978.

Not a field guide. Describes history of many non-native plants introduced to North America, including several important wild edible plants such as plantain, dandelion, amaranth, and clover.

About the Author

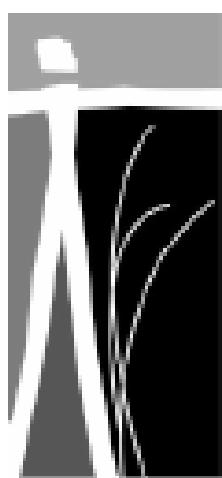
Jordan Scheibel was born in Connecticut and raised in the rural Litchfield Hills of the northwest corner of the state. He spent his childhood in an old school house built in 1750 bordered by 600 acres of preserved woodland. In those woods he picked his first wild blackberries and learned to identify jewelweed and shagbark hickories. He came west to Iowa in 2006 and graduated from Grinnell College in December 2009 with a degree in history and a growing appreciation for Grinnell as a second home. During his time as a student he was active with the student garden and was a member of the group that started the community garden at Miller Park in the summer of 2009. He has been interested in wild edible plants since spending two months at a farm and monastery in northern California during the summer of 2008.

Acknowledgements

In February of 2010 I came to Jon Andelson, director of the Center for Prairie Studies at Grinnell College, with a modest proposal for an edible plant guide to Grinnell. I had already graduated from the college but was a few weeks away from starting a full season of work at Grinnell Heritage Farm. I had originally intended for the guide to be an informal series of descriptive maps to be passed down to future leaders of the student garden. The maps would show where edible plants could be located around the Grinnell campus, the town and the surrounding area, compiling the knowledge I had accumulated over the 2009 season. My friend and student garden co-leader Caitlin Vaughan '10 convinced me to propose a full-fledged wild edible plant guide for which she deserves thanks.

The Center for Prairie Studies took my idea and ran with it, obtaining approval for a published guide and funding through the Center and from Monica Chavez-Silva at the Office for Community Enhancement. Their support made this project possible. Larissa Mottl provided wonderful assistance by compiling a series of maps of Grinnell's public parks showing where edible tree species could be found and also fact-checking. Melanie Stewart '11 and Grinnell Youth Conservation Corp gave me the opportunity to put some of my knowledge into action by leading a short edible plant walk at Arbor Lake. Laureen Van Wyk and Jan Graham did much of the work of actually pulling the guide together and producing its final format.

I was fortunate enough several years ago to meet a young man, just a year or two older than me, who had apprenticed with an herbalist and was incredibly knowledgeable about wild edible plants. He pointed out many edible species to me for the first time, piqued my interests with stories of their countless uses and extensive histories, and directed me to the first edible plant guide that I bought and used, *Identifying and Harvesting Edible and Medicinal Plants in Wild (and Not So Wild) Places* by "Wildman" Steve Brill, a book that was indispensable for writing this guide and that I highly recommend for the aspiring forager. I am grateful to both this young man and to Steve Brill for introducing me to wild edible plants, inspiring this guide, and making it possible to write.



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