Ho-Chunk Plants

Indigenous plants of Winnebago Reservation, Nebraska

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Natalie Davis for Little Priest Tribal College, Winnebago, NE

Most of the credit goes to the earth, which supports these incredible plants despite the intense competition of agriculture, and to indigenous people, especially the Ho-Chunk people of the Winnebago Reservation in Nebraska. So many people helped in so many ways.

The text of this book is for information only, and is in no way intended to replace a physician in caring for health needs of any kind.

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(others are found within the text)

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GLOSSARY

Astringent: A substance that contracts living tissue

Compress: A piece of linen or other cloth soaked in an herbal infusion or decoction and applied externally.

Cordial: A warm and reviving drink. The term is also applied to a medicine that stimulates the heart.

Decoction: Water in which a substance has been boiled and contains the constituents of the substance in it. A stardard decoction is made with 1 ounce of herb to 2 1/2 cups of water. To make a mild decoction, use half the quantity of the herb; for a strong decoction, double the quantity of the herb.

Diuretic: Any substance which, when consumed, increased the volume of the flow of urine.

Emetic: A stubstance, that when consumed, causes vomiting. Used to get harmful substances out of the body.

Emollient: A softening substance.

Expectorant: A substance that encourages phlegm to be coughed out of the lungs.

Glycerin: A syrupy liquid obtained from oils and fats that is used as a solvent, preservative, and stabilizer in making tinctures.

Infusion: A tea of water and a substance which has been prepared by pouring boiling water over the plant, and which has been allowed to sit a few minutes. For a standard infusion, use 1 ounce of herb to 2 1/2 cups of water. To make a mild infusion, half the quantity of the herb; for a strong infusion, double the quantity of the herb.

Poultice: A mass of cloth, bread, meal, herbs, etc., applied externally as a hot or warm application on a body part.

Purgative: A strong laxative taken to empty the bowels.

Rootstock: The crown and root system of herbaceous perennials and suckering shrubs.

Salve: A soothing ointment.

Tincture: A solution of extracts of medicinal plants obtained by steeping the plants in alcohol or glycerine.

Wash: A strong decoction or tea, usually cooled, which is applied to an injury, using a clean washcloth, which may be repeatedly wrung out and reapplied.

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Acer negundo **Box elder** Nahosh, Nąhoš-ge, or Na^{n}ho'cge

Moerman's Ethnobotany states it was used by Ho-Chunks for sweetener; the sap was used to make sugar. Gilmore says this tree was used also for sugar-making by all the tribes (his research was with the Dakota, Omaha-Ponca, Winnebago & Pawnee). Radin refers to maple sugar as Na^{n}da'nicura.

(Photo by goldenhillplants.com)

Acer saccharum **Sugar maple, silver maple, hard maple**, Na^{n}-sa^{n}k or Nansaąk

Na^{n}-sa^{n}k means ~~–p~~ure or genuine wood;" Na^{n} means wood, sa^{n}k, real, genuine.

Gilmore states the sap was used to make sugar. The twigs and bark were made into a black dye and used to color tanned hides.

(Photo by usda.gov)

Acer saccharinum, **Soft Maple**, Wissep-hu

Wissep-hu means ~~–t~~ree to dye black," ~~–s~~ep" means black, from the use of twigs and new growth to make black dye. They were boiled, a certain clay with an iron compound was mixed with grease and roasted. This roasted clay and the water from the twigs were mixed. Hides were soaked for 2-3 days to get black; shorter treatment time for brown. Moerman said it is used by Ho-Chunks for sweetener and for black dye.

(Photo by usda.gov)

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Achillea millefolium **Yarrow,** Hąk sįc, "woodchuck tail" or Mąkąw ir irotapanah i "medicine smudge" to the Wisconsin Ho-Chunk. "Honkseentsh" to English-speakers.

Gilmore states "Woodchuck tail," is based on the appearance of the leaves and that an infusion of herb was used by the Ho-Chunk as a wash for swellings. A wad of the leaves was put into ear for earache. The smoke is an important medicine used to revive consciousness.

Used for swelling by Ho-Chunk people (from *How Indians Use Wild Plants for Food by Francis Densmore*)

Soon after being bitten by a mosquito, rub freshly picked yarrow on the bite & it will be completely gone in about 20 minutes.

Yarrow has alternate, woolly, grey-green, fern-like leaves. The tiny, white flowers each have 4-6 ray petals, which grow in flat-topped clusters. Put the leaves or flowers on wounds or in a bloody nose to stop the bleeding. It is said that the smell repels mosquitoes.

A tea is used to counteract a chill or minor gastric upset. Helps break a fever, and will help clear blocked passages in colds or flu. Excessive amounts may lead to sensitivity to light.

Place fresh leaves in the nose to treat a migraine headache. Chew a fresh leaf to ease toothache. Use a tea as a mouthwash for inflamed gums. Put some leaves in to boiling water and inhale the aroma to treat asthma and hay fever. Do not use when pregnant, or for more than 2 weeks. Excessive doses are toxic.

(Photo by nic.funet.fi)

Ho-Chunk Plants

Acorus calamus, **Sweet flag, calamus,** ma^{n}ka^{n}-kereh, Mąkątek "medicine bitter" or Mąką kere kereš —medicine spotted" or Mąkąkeres

Moerman's Ethnobotany states it is used by Ho-Chunks for the explusion of gas, ceremonial medicine, cold, cough and fever remedy, panacea, tonic, and toothache remedy.

Gilmore states that blades of grass were used as garlands in mystery ceremonies. A decoction was taken for fever or cold; the rootstock was chewed, or smoke treatment used for colds and for toothache. An infusion of pounded rootstock taken for colic. Complex compound injected via bird wing bone for general health.

In September 2006, I purchased several pieces of bitterroot from a vendor at the United Tribes powwow. I wasn't sure what it was, and asked. "It's bitterroot," said the lady. I asked what it looks like, and she said "Leaves, this high," measuring about two feet tall with her hand, "No flowers," she said. I asked if it had little horns on it, but she replied "No flowers." I asked how to use it, and she called out to her daughter to come talk to me. The daughter said you put it in boiling water and drink the tea, that it was good for colds and it helps balance the blood sugar of diabetics. She said she was a nurse and had measured a woman's diabetic abnormally high blood sugar, then the woman took a dose of bitterroot tea, and an hour later, her blood sugar was normal again.

Various sources, Andros, Radin, Gilmore and Smith note that it is a very important medicine for colds, but very dangerous unless only a little bit is used. It is said that spraying it around the tent while camping will keep out spiders and snakes. Gilmore states all the tribes hold this plant in very high esteem. It was used as a carminative (to ease or prevent gas), a decoction was drunk for fever, and the rootstock was chewed as a cough remedy and as a remedy for toothache. For colic an infusing of the pounded rootstock was drunk. As a remedy for colds, the rootstock was chewed or a decoction was drunk, or it was used in the smoke treatment. In fact, this part of the plant seems to have been regarded as a cure-all. When a

hunting party came to a place where the calamus grew, the young men gathered the green blades and braided them into garlands, which they wore around the neck for their pleasant odor. It was one of the plants to which mystic powers were ascribed. The blades were used also ceremonially for garlands.

The Cree Indians of Northern Alberta use it for a number of medicinal reasons including: the peeled rootstock used as an analgesic for the relief of toothache or headache, for oral hygiene to cleanse and disinfect the teeth, the fight the effects of exhaustion or fatigue, and to help cure or prevent a hangover. Other tribes used it to treat a cough, made a decoction as a carminative and as an infusion for colic.

The Dakotas use calamus to treat diabetes, and there are several reported cases where of the root had cured people who had been given up by Western medicine. When calamus root was chewed regularly by the Indians, they would be miraculously cured of this disease within a matter of months. The Lakota used the whole plant, making aromatic garlands from the leaves and using the root as a tea for bowel pains, or rubbed the chewed root on the skin for a general illness cure.

Calamus was also widely used by Canadian trappers working for the Hudson Bay Company, using it as a stimulant, chewing a small piece whenever tired.

Bitterroot is a grass-like, rhizome-forming perennial that can grow to six feet tall, resembling an iris. It inhabits wet areas like around ponds, lakes and ditches, and often shares habitat with the common cattail. It has long creeping roots that spread out horizontally just below the surface of the soil. These roots can grow to almost six feet long for old, well-established specimens. The thick, erect leaves are very similar in appearance to those of an iris, but with edges that are crimped.

Plants very rarely flower or set fruit, but when they do, the flowers are 3-8 cm long, cylindrical in shape, greenish brown and covered in a multitude of rounded spikes. The fruits are small and berry-like, containing few seeds. It flowers from early to late summer.

It is associated with the muskrat in many native American cultures as the rodent consumes copious quantities of the root.

It is native to most northern latitude countries around the world and

may have been widely dispersed around the United States by Native Americans who planted the roots along their migratory paths to be harvested as needed.

Calamus is a hardy and easy to grow. New plants are almost always started from root divisions. Use at least a two-inch piece of root, preferably firm, clean and aromatic, and free from damage. Plants can be divided in the fall for spring transplants. These plants will grow almost anywhere as long as there are adequate amounts of water present, and ample sunshine.

Active constituents: Monoterpene hydrocarbons, sequestrine ketones, (trans- or Alpha) Asarone (2,4,5-trimethoxy-1-propenylbenzene), and Beta-asarone (cis- isomer) contained in the roots essential oils. The asarones are MDA type compounds that are the naturally occurring precursors of TMA-2. The psychoactive constituents break down over time lessening potency until at a year after harvest, the roots are considered worthless. The American variety has consistently tested free of the carcinogenic Beta-asarone.

The unpeeled, dried rhizome was listed in the National Formulary until 1950, for medicinal use on humans, but has banned by the Food & Drug Administration as a food additive and within the last few years many herbal shops have stopped recommending or dispensing it. It is considered unsafe for human consumption by the FDA based on the fact that massive doses given to lab rats over extended time periods has proven to be carcinogenic. (herbal-shaman.com)

These same rhizomes have been historically used as a substitute for ginger, cinnamon or nutmeg and have been candied by settlers. Its leaves act as insect repellant, and the lower stem and rhizome can be dried and used to scent clothes, cupboards etc.

Most of the available herbal info on its use is as a gas reliever & digestive bitter. This means it stimulates digestion by promoting the production of bile, and getting the stomach churning and ready for food.

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Traditionally, the root was chewed, though a infusion can be made by soaking it at the top of a closed jar of cold water overnight. Hot water infusions & alcoholic tinctures are bad-tasting. A tablespoon of the dried, cut & sifted root is adequate, and the entire tea need not be consumed. Calamus will usually settle heartburn, nausea & inflammation of the stomach prepared this way. (erowid.org)

A Nebraska Winnebago tribal member told me in 2006 that bitterroot does grow on the Winnebago Reservation, but the place she used to get it has been cleared. She also said that some people boil it & add other soup vegetables to the water, using it like a root vegetable.

(Photos by gardensandplants.com and erowid.org)

Agastache foeniculum **Blue giant hyssop, Fragrant wild hyssop**

Moerman states it is used by Winnebagos for beverage and sweetener.

Gilmore states the leaves were used to make a hot tea-like beverage taken with meals and the plant was used as a sweetener flavor in cooking. (Photos by finegardening.com)

Allionia nyctaginia aka Mirabilis nyctaginea, **Wild 4 o'clock**

No recorded use has been located at this time. (Photo by illinoiswildflowers.info)

Allium canadense or Allium mutabile **Wild Onion, Wild Garlic, Meadow Garlic** Shi^{n}hop or Šį ǧop

Gilmore states the fresh, raw bulbs were used as a relish, bulbs used as a flavor for meat and soup. Andros states: ~~I~~For the sting of bees or wasps they [the Winnebagos] use the wild onion bruides, which, from experience, I know almost instantly relieves the pain."

(Photo by lib.ksu.edu)

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It is a perennial plant and flowers May-June. It has no stem but blossoms are on a stout, flowering scape, 6-30 inches tall.

Basal leaves arise from bulb, usually more than two leaves, linear to lanceolate, 4-12 inches long and less than 2/10 of an inch wide. Flower is an umbel that has numerous flowers.

Accounts disagree on the topic of preserving wild onions, some saying they do not preserve well, others saying they do. Moerman's Ethnobotany states it is used by Winnebagoes for sauce & relish, spice.

(Photo by wisplants.uwsp.edu and ct-botanical-society.org)

Amelanchier alnifolia, **Juneberry, Saskatoon berry, Serviceberry**, Haz-shutsh or perhaps wîxtcáwux Haz-shutsh; haz means fruit; shutsh means red.

Moerman states it is used by Winnebagos for fruit, hunting and fishing item, and toys and games.

Native Americans pounded dried buffalo meat together with serviceberries to make pemmican. The fruit is high in vitamin C and attracts birds. The plant is a larval host for the western tiger swallowtail and Weidemeyer's admiral butterflies.

Gilmore states the wood was used for arrow shafts. Plant used to make popgun pistons.

(Photos by cwnp.org and swcoloradowildflower.com)

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Ambrosia artemisiifolia, **Annual ragweed**, Mąkąhikikuruža —medicine headache wash" to the Wisconsin Ho-Chunk.

According to Huron Smith, the tops of this are used to make a wash to cure headache.

(Photo by Natalie Davis.)

Amorpha canescens **Leadplant** Xąwįsku —sweet root" or Taxumąką —burnt medicine" by the Wisconsin Ho-Chunk.

The iridescent dark purple spikes of leadplant appear in June and July on the prairies. It occurs as far east as Michigan and Indiana.

Usually about 2-3 feet tall, 2-3 feet in diameter, the plant gets its common name from the gray appearance caused by fine hairs that cover the leaves, stems and unopened flowers. Flowering spikes crowd the top of the stems. The thick taproot penetrates deep underground. At maturity the seedpods are about three-sixteenths of an inch long.

Leadplant is a member of the bean family (*Fabaceae*); *Fab* means "bean" in Latin. The name *Amorpha* stems from the Greek *amorphos*, "deformed," because of the absence of 4-5 petals normally found on flowers of the bean family. *Canescens* means "becoming gray."

According to Huron Smith, the Wisconsin tribe uses the leaves as medicine for scalds. It is powdered, then wetted and applied. The root is used for food. The Pawnees used stems of leadplant in moxa, or burning of plant parts just above a pressure point, similar to acupuncture treatment.

(Photo by Natalie Davis)

Ho-Chunk Plants

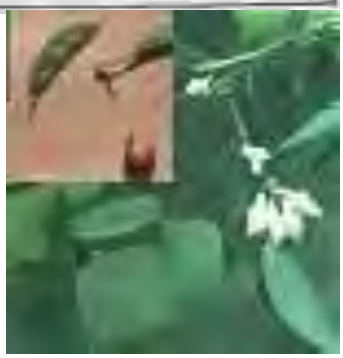
Amphicarpaea bracteata, falcata comosa, **Ground bean, American Hog Peanut,** Hųnįkboija, perhaps Hónikmodjára

Hųnįkboija: Pea vine or Hónikmodjára, ground beans. Hųnįk means ~~b~~bean."

Moerman states it is used by Winnebagos for unspecified food item.

Gilmore states the beans were used for the agreeable taste and nutritive value. In the South, this plant can be mistaken for the kudzu vine.

An industrious ~~b~~bean mouse," the vole, *Microyus pennsylvanicus*, 5 ½ inches long and weighing up to 2½ ounces, is a hoarder of the hog peanut. This vole hollows out a place in the ground and covers its hoard with sticks, leaves and earth.



Some have reported that it uses a leaf of the box elder tree or another kind of suitable shaped leaf, as a sled for gathering hog peanuts.

The women of some tribes, especially the Dakota, harvested the bean mouse's caches in October, up to half a bushel or more, either leaving a portion of it, or leaving something else in return for the mouse's hard work.

(Photos by rootsweb.com and wisplants.uwsp.edu)

Andropogon gerardii **Big bluestem, Turkeyfoot**, No known use.

(Photo by floridata.com)

Ho-Chunk Plants

Anemone patens **Pasque flower** (also known as *Pulsatilla patens*)

Blooms in early spring, likes dry hillsides, attains a height of 4-6 inches. This messenger of spring often pokes its purple flower-head through the snow, before its leaves have finished forming. The entire plant is covered with dense hairs. The stem has a collar of narrow leaves below the flower. The flower has 5-7 petal-like sepals surrounding a yellow center. The flower is later replaced by a feathery seed-head.

It is the flower of Manitoba and North Dakota.

(Photo by hillkeep.ca)

Apios americana or *Glycine apios,* **Ground nut, Indian potato,** Tdo, Tó or Tora

Moerman states it is used by Winnebagos for an unspecified food item. Gilmore states the roasted or boiled tubers were eaten.

The plant is a fast growing perennial in moist areas. The tuber is eaten raw or cooked, tasting like roasted sweet potato. It can be dried & ground into a powder then used as a thickening or added to flours for bread. Its protein content is more than three times that found in potatoes. It can be harvested in first year but in three years becomes a sizeable crop. They are best in the autumn and store until at least spring.

Not only were these tubers used by the native people, but also the settlers, boiled, fried, or roasted. The seeds are edible also. One settler wrote: "They eat, besides, roots, such as bulbs of the red lily; a root which has a taste of licorice; another that our French people call "rosary," because it is distinguished by tubers in the form of beads; and some others.

(Photos by missouriplants.com and mobot.org)

Ho-Chunk Plants

Apocynum cannibinum, Dogbane, Wild cotton.

Used by many tribes; tea from the boiled roots was drunk once a week.

Aquilegia canadensis Columbine

After the petals and sepals fall off, you'll see the still-forming seed pods near the stamens, which usually stay attached a little longer than the petals & sepals. They look like a bundle of parallel tubes. When the tubes start to turn brownish & split, the seeds are ready.

Seeds need to be planted while still fresh. If you plant right away, they'll get a few leaves then come back bigger in the spring & won't flower until it is two to three years old. They don't like to be moved, so if you do dig them up, it might be best to try to leave the roots undisturbed.

Some Native Americans, including the Omaha, historically used the crushed seeds as an aphrodisiac. A man would use crushed seeds on his hands and try to get his chosen to touch his scented hands.

(Photo by ugatrial.hort; small photo by botany.utoronto.ca)

Arctostaphylos uva-ursi **Bearberry, Kinnikinnick, Mealberry, Mountain Cranberry,** perhaps Hotc'áñk'e or Hotc-age

Grows as a vine or mat usually along open areas and down slopes. It has small leathery spoon shaped leaves that are attached to reddish barked stems. The flowers usually appear in the spring. Flower growth process begins as small pinkish urns that mature into red berries that are sporadically located along the length of the stem.

The bearberry plant can be found from sea level to 11,000 feet. Growing on open hillsides in the mountains and on the dry sides of canyons. Plants range from the coastal areas of Northern California northward into Canada and will grow almost anywhere given an acidic soil and sunny location.

(Photo by mikebaker.com)

Ho-Chunk Plants

Arisaema triphyllum **Jack-in-the-pulpit** The root is Waxge.

The root is made into a bitter compound much like a mustard plaster for neuralgia or rheumatism by the Wisconsin Ho-Chunk, according to Huron Smith.

The flowers are irregular in shape; blooms appear mid-spring. The spathe (pulpit) is green streaked with purple. The spadix (jack) is covered with tiny male & female flowers. It takes five years for plant to flower. Most plants in a colony will become dormant by summer, but the mature, hermaphroditic flowering plant will produce a cluster of red berries in mid to late summer which becomes visible as the spathe withers. (mobot.org)

Calcium oxalate crystals present in the entire plant will cause a powerful burning sensation if eaten raw. Properly drying or cooking removes this effect and the Native Americans used the root as a vegetable. One account states that the Meskwakis would put finely chopped root into meat they would leave for their enemies to find. The meat was eaten, but in a few hours these enemies would be in so much pain they would die. It is reported that they also used it diagnostically by dropping a seed in a cup of water and if the seed went around four times clockwise the patient would recover and if less the patient would die.

Despite its possible irritating effects there are several accounts of Native Americans using a preparation of the root on sore eyes. It was also used for cold symptoms. Externally it has been used for various skin infections and against pain and swelling.

(Photos by nativeplant.com and ct-botanical-society.org)

Armoracia rusticana, **Horseradish**, Mąkątakac —medicine hot" to the Wisconsin Ho-Chunk.

[Introduced from Europe] Used in compounds to cure old sores. Very good for internal cramps.

(Photo by univ-poitiers.fr)

Ho-Chunk Plants

Artemesia spp in general **Wild Sage** Ha^{n}wi^{n-}ska. Xąwįska or in Wisconsin, according to Huron Smith, Xawiskarawirotapanahi

Gilmore states this plant was used to begin any ceremony in order to drive away evil influences. A decoction of plant used as a wash for purification and was taken for stomach troubles and many other ailments, including colds. It was used as incense to exorcise evil powers and the tops were chewed and used for popgun wads.

The sage most commonly used in the Winnebago area is *Artemesia ludoviciana*; it is a symbol of cleanliness and purity and a necessary part of every sacred ceremony. Dancers in the Sun Dance wear crowns of sage and chew it to alleviate their thirst. –The smoke of sage is strong; all evil spirits fear it." *(from Plants of Power by Alfred Savinelli)*

(Photo by usda.gov)

Artemisia dracunculus **Fuzzy weed, Wormwood** Rake-hinshek, –bushy weed" or –fuzzy weed." Rake means weed and hinshek means bushy or fuzzy.

Moerman states it is used by Winnebagos for fever reducer, love medicine, mats, rugs and bedding, toys and games.

Gilmore states the Winnebago placed the chewed root of this plant on clothing to attract love and to secure good hunting. In either case, the effect depending on getting upwind of the desired object, person or animal, and allowing the breeze to carry the scent of the plant to them. It as used also in the smoke treatment. A Winnebago medicine man had told Gilmore that a handful of the tops of this species dipped into warm water served as a sprinkler for the body to relieve fevers.

(Photo by usda.gov)

Ho-Chunk Plants

Artemisia frigida, **Fringed Sagewort**

Gilmore said that plant bunches were used as towels in old times. (Photo by usda.gov)

Artemisia gnaphalodes, **Wild Sage,** Xąwį ska

"Ha$_n$wi$_n$-ska," plant-white. Moerman states it is used by Winnebagos for ceremonial medicine, disinfectant, gastrointestinal aid, witchcraft medicine and games.

Artemisia ludoviciana, syn. Artemisia purshiana **Wild sage, Wild sage, Native wormwood** , Xąwįska or Xąwįskarawirotapą ną hi ~~-a~~ smudge to revive consciousness" to the Wisconsin Ho-Chunk.

Widespread in North America, including most all of the U.S. and south into Mexico. Herbaceous perennial groundcover has aromatic silver foliage, insignificant yellow flowers clustered in loose spikes, July to October; spreads by underground rhizomes. Hardy to 0°.

The Maya are said to have boiled it & used it for pleurisy as a hot application; a decoction was used for coughs, asthma, and for diarrhea. Additionally, a poultice of this plant was placed directly on the abdomen for colic. The Spanish New Mexicans are said to have made a tea from this plant that was used for stomachaches, side pains, and small amounts were given to babies for diarrhea and vomiting. Older people would sometimes make larger quantities of the tea to bathe in.

Gilmore states that the plant bunches used as towels in old times.

(Photo by Natalie Davis)

Ho-Chunk Plants

Asclepias syriaca, **Milkweed**, Mąhįc

Moerman states –ma-heench" is used by Winnebagos for unspecified food item and toys and games.

Since all parts of milkweed have some poisonous properties, preparation includes boiling plant material four minutes, then changing the water. Young shoots, up to 6 inches, can be boiled in several changes of water, & eaten like asparagus or broccoli. Flowers are edible in all stages, but buds are best at about golf ball size. Pick before the color starts to show in the buds, soak in cold water, then boil briefly, (once or twice, changing the water after each boil). Cooked buds are good cold in salads & very tasty as a hot vegetable dressed with salt, pepper & butter or soy sauce and sesame oil. Open blossoms can be used to make fritters.

Next spring when you find volunteers, if they're shorter than 4-5 inches tall, you can transplant them, being careful with its taproot.

Gilmore states that the boiled young sprouts, floral bud clusters, & firm green fruits were used for food. Mature stalk fiber was chewed & used for popgun wadding by little boys.

The Wisconsin Ho-Chunk eat the flowers or buds of both *Asclepias exaltata* and *A. syriaca* in soups in the spring. *Asclepias tuberosa* is Mąkąska –medicine white."

Navajo women drank a tea made of the whole plant after childbirth.

It is widely known that the larva of the monarch butterflies relies exclusively on the milkweed and its cousins for food.

(Photos by Natalie Davis, usda.gov and monarchwatch.org)

Asclepias viridiflora, **Tall milkweed**

The root is medicine for the Wisconsin Ho-Chunk. A tiny piece boiled is a lactuary for a woman.

Ho-Chunk Plants

Astragalus canadensis, **Canada milk vetch, Little rattle-pod**

Medicinal uses: Boiled root was used to treat fever, back pain, and coughs. A poultice of chewed root was used for cuts. Food uses: The roots can be gathered in the spring and eaten. (morningskygreenery.com)

The root was eaten raw or boiled, often used in a broth. The roots are gathered in spring or autumn. Caution is advised, if the root is bitter it could be due to the presence of toxic alkaloids.

The root is a pain reliever and helps to stop the flow of blood. It can be chewed or used as a tea to treat chest and back pains, coughs and the spitting up of blood. A decoction of the root is used as a fever-reducer for children. A poultice made from the chewed root has been used to treat cuts. (ibiblio.org)

(Photo by usda.gov)

Astragalus crassicarpus, **Buffalo pea, Ground plum**

The fruits are edible, being very juicy; they taste a little like pea pods.

(Photo by usda.gov)

Ho-Chunk Plants

*Baptisia bracteata, Baptisia leucophaeat, Baptisia alba.***Cream false Indigo, Nodding Wild Indigo, Black rattlepod,** Capakginųsge

The Omaha and Ponca tribes named this plant for how the seeds rattle inside the pod once ripe.

Once used to treat cuts and fevers. An ointment was made from pulverized seeds and buffalo fat, then rubbed on the abdomen was used to treat colic. The Mesquakies used one of the baptisias to treat vomiting, excema and sores that wouldn't heal.

Ethnobotanist Huron Smith indicated that certain doses were used to treat typhus, scarlet fever and epidemic dysentery, but too high of a dose could cause death by respiratory paralysis. He noted that the root is a single remedy to use for injured womb alone. Cook the root and mash it to form a poultice to bind on. Wash with water and draw out the inflammation. Change twice a day until healed.

(Photo by usda.gov)

*Betula papyrifera***, Paper birch,** Tcâtcáwa. According to Smith: Ahaska means tree with white skin.

Moerman's Ethnobotany states it is used by Winnebagos for toys and games. Gilmore said the papery bark chewed to a pulp and used for popgun wads.

The bark was used to make baskets, storage containers, mats, baby carriers, moose & bird calls, torches, household utensils, and, of course, canoes or tcatcâ´wahára. The strong, flexible wood was made into spears, bows, arrows, snowshoes, sleds, and other items.(rook.org)

(Photos by usda.gov)

Ho-Chunk Plants

Carya ovata, Hicoria ovata, **Shagbark hickory, Hickory Nut**, Pa^{n}ja

Pa^{n}ja ~~n~~ut" or Pa^{n}ja-hu, ~~n~~ut tree" according to Gilmore. Radin says it's Pa^{n}dja'gu

Moerman's Ethnobotany states it is used by Winnebagos for soup, sweetener.

Gilmore states the nuts were used to make soup, sap was used to make sugar, hickory chips were boiled to make sugar and the nuts were eaten plain or with honey.

The nuts were a staple for many tribes. They mashed the nuts with water, then used the "milk" to make breads and cakes, and to serve like butter on vegetables. Sugar and syrup can be made from the sap, as with sugar maple (*Acer saccharum).*

(Photos by botany.wisc.edu and hil-

Ceanothus americanus, **New Jersey Tea,**

Ca-waruc ~~d~~eer food" to the Wisconsin Ho-Chunk.

Moerman's Ethnobotany states it is used by Winnebagos: Leaves used to make a tea. Gilmore states the woody roots used as fuel on the buffalo hunt during scarcities of timber.

The Wisconsin Ho-Chunk use the root as a medicine for women.

Dried leaves were used as a tea substitute in American Revolutionary War times, giving it it's English common name. (mobot.org)

The roots and root bark of New Jersey tea was used by the tribes to treat fevers and problems of the mucous membranes and sore throats (ibiblio.org)

(Photo by usda.gov)

Ho-Chunk Plants

Celtis occidentalis, **Hackberry,** Wake-warutsch means ~~–r~~accoon food," "Wake" is ~~–r~~accoon" & "warutsch" is ~~–f~~ood."

This large, gracefully spreading relative of the elm makes an excellent shade tree. It produces fruit which is a source of food for many animals and birds, including wild turkeys, pheasant, quail and grouse. Gilmore states that the Omaha ate the berries casually, but the Dakota used them as a meat flavoring. The Pawnee pounded the berries fine, added a little fat, and mixed them with parched corn. They described the combination as very good.

Hackberry is drought tolerant and has survived extreme dry periods in the Great Plains, such as the Drought of '34 in Kansas.

(Photo by usda.gov)

Chamaecrista fasciculata **Showy Partridge Pea**

The term "partridge pea" has been used to describe a wide array of small wild peas consumed by bobwhite quail. Found in disturbed areas, prairies, open woods, waste ground, and along roads.

Upland game birds and songbirds eat the seeds, and deer and cattle will consume the foliage. The seed is one of the major food items of northern bobwhite and quail because it remains in sound condition throughout the winter and early spring. Partridge pea can be mildly poisonous to livestock when consumed in large quantities, but deer seem unaffected.

One to four feet tall, blooms July through September.

(Photo by Natalie Davis)

Ho-Chunk Plants

Chamomilla suaveolens or Matricaria matricarioides, **Pineapple weed**

Pineapple weed is a very common summer annual weed. Growing 3-12 inches high, the small, yellowish green flowers at the ends of stems do not have showy petals and resemble tiny pineapples. The foliage gives off a strong, sweet apple-like smell when crushed. Found in waste areas, lawns, gardens, and along roadsides. At one time, a tea brewed from the leaves was used as a sedative.

(Photo by calflora.net)

Citrullus lanatus, **Watermelon**

Citrullus lanatus has been an important source of water and food for many ages.

The seeds can be roasted and ground into a meal rich in proteins and oil. It can be used as a cosmetic: after chewing it and moistening it with saliva, it is smeared on the body, resulting in smoother skin. The young fruit and leaves can be cooked and eaten as a vegetable. There is a bitter form of this wild melon which is evidently poisonous but which has been used medicinally.

Exact history is unclear, but by 2000 BC domestic watermelons were being grown in the Nile Valley. A wide variety of watermelons were cultivated in Africa, India, China, and Europe by the 10th century CE.

North American Indians took to watermelons enthusiastically when they were introduced by Spanish explorers in the 1500s. Passing of seed from tribe to tribe, watermelon cultivation in North America spread faster than European exploration of that region. (museums.org.za) There are several varieties of *citrullus lanatus,* most small and prolific.

(No photo.)

Cornus amomum, **Kinnikinnick**, Ruǧi šuc, Ca waruc, –~~d~~eer food" Silky dogwood

Ruǧi šuc is associated with peeling bark to smoke it. The stems of dogwood are red. Moerman's Ethnobotany states it is used by Winnebagos for

smoke plant. Gilmore states the fragrant inner bark was dried and used for smoking.

Cawaruc, which means –deer food," is what the Wisconsin Ho-Chunk called it. Deer and game birds eat the stems, leaves and the bluish fruits. Smith states of the tribe: They smoke the bark.

The Menominees boiled the inner bark of the dogwood and passed the warm solution into the rectum with a syringe.

(Photos by Natalie Davis and greenwaterreport.com)

Cornus asperifolia, **Rough dogwood, Toughleaf dogwood,**

Moerman's Ethnobotany states used by Winnebagos as a hunting and fishing item. Gilmore states the wood was a favorite for arrow shafts. (Photo by mobot.org)

Corylus americana, **Hazelnut, American Filbert**, Huksik

Hazelnuts, huksígara, can be hard to find in Nebraska as they do better in more easterly areas with more rainfall; also animals like them very well. The Potowatomi liked the nuts late in the summer when they were in the milk stage and had not yet hardened. At this stage the nut meats are soft and sweeter than when fully mature.

Both Moerman and Gilmore say they were used by Winnebagos for soup. Gilmore adds that they were eaten raw with honey.

This native shrub produces a tasty, edible nut that is relished by blue jays, bobwhites, grouse, pheasants and turkeys. It forms a rounded shrub with dark-green foliage that turns yellow in the fall. The 1/2-inch nuts are produced in clusters and enclosed in a covering that opens as they ripen.

Nuts were used by Native Americans to flavor soups and used it medicinally for hives, gastric distress, diarrhea, cramps, hay fever, childbirth, hemorrhages, and teething, to induce vomiting, and to heal cuts.

(Photo by usda.gov, and nut2project.bio.iastaate.edu)

Ho-Chunk Plants

Crataegus chrysocarpa, **Thorn apple, Hawthorn, Fireberry Hawthorn,** Chosa^{n}wa, Cosąwa

–Cosąwa" means pink. Moerman's Ethnobotany states it is used by Winnebagos for starvation food. Gilmore also states the fruit was sometimes used for food, but mostly as a famine food.

This deciduous tree may grow to 18 feet and is hardy to zone 5; it is in flower in May, and the seeds ripen in September. It can tolerates strong winds and prefers the sunny edge of a wooded area.

The fruit is eaten fresh or cooked. It is good-tasting, with the added bonus of ripening in late summer before most other members of the genus. The fruit can be used in making pies, preserves, etc, and can also be dried for later use. It is about 3/8" in diameter and borne in small clusters. There are up to five fairly large seeds in the center of the fruit, these often stick together and so the effect is of eating a cherry-like fruit with a single seed. A tea can be made from the twigs or the young shoots with leaves.

A decoction of the dried berries has been used as a mild laxative. A compound decoction of the root has been used in the treatment of diarrhea. Although no other specific mention has been seen for this species, the fruits and flowers of many hawthorns are well-known in herbal folk medicine as a heart tonic and modern research has borne out this use.

They are especially indicated in the treatment of weak heart combined with high blood pressure. Prolonged use is necessary for it to be efficacious. It is normally used either as a tea or a tincture.

The wood of the hawthorn is heavy, hard and close-grained, so it is useful for making tool handles, mallets and other small items.

The Latin name *crataegus* is from the Greek *cratos* for "strength" because of the hardness of the wood; *chrysocarpa* is from *chrysos* for "golden;" *carpos* for "fruit."

(Photo by wisplants.uwsp.edu and uwgb.edu)

Ho-Chunk Plants

Cucurbita foetidissima, **Buffalogourd, Wild pumpkin**, **Missouri gourd**

Moerman states it is used by Winnebagos for panacea. Gilmore states it is used for any ailment, according to the doctrine of signatures.

The doctrine of signatures states that there is a relationship between the outward appearance of a medicinal object and the diseases it is meant to treat.

The fruit is the size of a tennis ball, with yellow & green stripes.

The pulp & root have enough saponin to make a soap substitute. The fruit can be eaten, but is bitter. Roots were used as cures for rheumatism, constipation, and sores and ulcers. The Navajo used dried gourds for rattles in ceremonials.

Buffalo gourd is native to the southwest. Various tribes have used buffalo gourd for at least nine thousand years. It has been used traditionally in various ways as a food, cosmetic, detergent, insecticide and ritualistic rattle, to name a few.

The Isleta Pueblos boiled the roots applying the infusion for chest pains. The Tewa grind the root into a powder drinking it with cold water for laxative effects (not safe: can cause diarrhea and irritation of the digestive tract). The roots are eaten as food because of its sweet starch content. The juice of the root is also disinfecting and remedies toothache. The baked fruit rubbed over rheumatic areas will relieve pain. The seeds and flowers help control swelling. The seed also acts as a vermicide. The poultice of the smashed plant will remedy skin sores and ulcers. (spuds.agron.ksu.edu)

(Photo spuds.agron.ksu.edu and biozac.de)

Ho-Chunk Plants

Cucurbita lagenaria, **Dipper gourd**

(No photo.)

Cucurbita pepo, (variety unknown) **Squash, Field pumpkin,**

Wicawacozu by the Wisconsin Ho-Chunk.

The seeds are used for worms; the seeds are shelled and eaten raw.

Dried squash may be called Hotcâwâdawus (accent on the second syllable)

(No photo.)

Cuscuta glomerata, **Dodder, love vine, rope vine**

An annual parasitic climbing vine with clusters of small white bell-shaped flowers on coiled yellow to orange-red stems. Leaves are hard to see and are usually just threadlike scales.

All are parasitic on other plants, twining around stems ~~in~~ love." They live on the sap of the plants they ensnare and sometimes completely sever their own connection with the soil.

The waxy five-lobed flowers are tiny, 1/8" wide. Tribes harvested it plant while it was in flower, taking the whole plant. They used the plants in a bath to treat of tuberculosis and used it for a contraceptive, but the technique is unknown at present. (main.nc.us)

(Photo by botany.wisc.edu)

Cuscuta paradoxa was, according to Gilmore called Maka^{n}-chahiwicho.

(No photo.)

Daucus carota, Queen Anne's Lace [Introduced from Europe]

Flower is an umbel that folds in on itself after flowering.

The Mohegans steeped the blossoms of this wild species in warm water when they were in full bloom and took the drink for diabetes.

Ho-Chunk Plants

Desmanthus illinoensis, **Spider bean, Illinois bundleflower,** pezhe gasatho –rattle plant," atikatsatsiks, –spider-bean," kitsitsaris, —bad plant."

Native from North Dakota to Texas, and Colorado to Ohio, it grows in small patches throughout the prairie and along roadsides despite regular mowing. They tend to like ample sources of water and will grow in floodplains. Flowers white in the summer and grows up to 5 ft. Propagate from seed soak overnight, then germinate at room temperature. Also self-seeds.

The leaves of this plant are known to be edible and reportedly very high in protein. Some people use flour made from the foliage to be baked into cookies.

The Pawnee made a decoction from the leaves to be used externally to relieve skin itching and used the seed pods as rattles for their children, who used them to mimic the adults traditional dances.

The Moapa Paiute used seeds as a treatment for chronic pink eye, putting the seeds in the affected person's eye overnight, and washing them out with clear water the next morning.

The root and bark contain typptamine DMT, a potent substance which induces visions. (*Plants of the Gods* by Richard Schultes.)

(Photos by usda and robsplants.com)

Dyssodia papposa, **Fetid marigold**, **prairie dog food**

Fetid marigold is a bad-smelling (like something rotting) annual up to 20 inches tall. Leaves are 1 -2 inches long, mostly opposite, and pinnately divided into narrow lobes that are sometimes again divided. Leaves are hairless and dotted with orange, sunken oil glands.

Flower heads are bell-shaped and less than 1/2 inch wide. The few ray flowers are inconspicuous, but the 12-50 disc flowers are yellow. Mature seeds are about 1/8 inch long and bear a tuft of bristles.

It blooms from July to September in prairie disturbed by digging animals or livestock trampling, and

along roadsides. The strong odor of these plants likely discourages their consumption by livestock.

(Photo by Natalie Davis)

Echinacea angustifolia & Echinacea purpurea **Purple coneflower, Kansas snakeroot, Black samson**

Moerman states it is used by Winnebagos for an analgesic, burn dressing, miscellaneous disease remedy, snakebite remedy, toothache remedy, and veterinary aid. Gilmore says it was used as a remedy for more ailments than any other plant.

Purple coneflower is named for its red-purple, daisy-like flower which grows in the meadows of the midwest. This herb is well-known for its ability to give the immune system a boost when fighting off colds and other common ailments.

Both *Echinacea augustifolia* and *E. purpurea* are potent medicinals--the ones you can spend a lot of money for at the health food store. They are also on United Plant Savers endangered & over-harvested list, so growing your own rather than buying is an act of kindness to the diversity of native American plants.

It is the 3- or 4-year old roots of Echinacea that are most active medicinally. If you already have such plants, late winter is harvest time. As you dig up the clumps of roots you will notice the red-tinted buds. Each of these little buds with roots attached is a potential plant. As you pull the clumps apart, save those with the heftiest roots for tincturing. Replant some of the buds, with some roots attached, at the same depth as before.

E. angustifolia juice used as wash for pain from burns and the plant is used in smoke treatment for headache. Gilmore states the plant was used as an antidote for many poison conditions. Juice used by jugglers as wash for arms, to protect against boiling water. Plant used to make mouth insensitive to hot coals put in mouth for show.

Ho-Chunk Plants

A poultice of the plant was applied to enlarged glands, as in mumps. Plant used in the steambath to ~~"r~~ender great heat endurable." Used for snake and other venomous bites and stings in unspecified ways. Plant applied to tooth for toothache and used in smoke treatment for horses with distemper.

(Photo by Natalie Davis)

Echinocystis lobata,syn. Synonyms: Micrampelis lobata; Sicyos lobata

Wild cucumber Xa'o'oke, which means ~~"h~~oot owl" according to Smith.

Wild cucumber is not too common. The fruit resembles the cultivated cucumber except it is smaller, softer, & has weak spines on it. Smith says the roots are used by some of the Ho-Chunk and the seeds are used as a urinary medicine. Not to be confused with the much more troublesome bur cucumber, *Sicyos angulatus*.

(Photos by wisplants.uwsp.edu)

Equisetum species Equisetum arvense, **Horse tail, Field horsetail**

Moerman states used by Winnebagos as a game item. Gilmore states the stems were used by children to make whistles; they were sometimes warned not to, lest snakes should come.

The root is horse medicine, but if horses should eat the tops, they would die right away if someone ran them. If they only eat a little, they'll fatten up. The tea acts as a urinary for horses.

One *Equisetaceae* has light and dark bands at each joint and the spore producing flower cone at the tip. The high silica content of the plant makes it useful for scrubbing pots.

Ho-Chunk Plants

Equisetum arvense likes wetlands and blooms in spring. The brown, fertile, unbranched stem bears the reproductive sporangiate cone. This stem grows in the early spring and wilts in a few days; the large patch of green branched sterile stems remains through the fall.

(Photos by swcoloradowildflowers.com)

Erigeron strigosus, **Fleabane, Rough Fleabane, Daisy Fleabane**, Poaxų

Poaxų means ~~–s~~weat, sneeze or smudge," and was used in the sweat bath.

Weeds of Nebraska and the Great Plains states: Native Americans made a tea from this plant to treat sore mouths, rheumatism, lameness. Flowers may be white, pinkish or bluish. It continues: Philadelphia fleabane *Erigeron philadelphicus,* is most common in eastern & northern parts of Nebraska.

(Photo by Natalie Davis)

Erythronium mesochoreum, **Prairie Dog-tooth violet**, Here šuc,

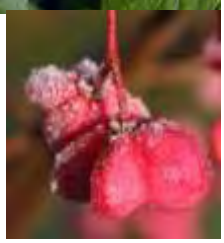
"Hede-shutsch." Not a major food source, the only reference to eating is it that Winnebago children, when the tribe lived in Iowa, ate the raw roots of the white dog-toothed violet ~~–w~~ith avidity" when dug in the springtime. Gilmore states they are crunchy, mild with a slightly bitter aftertaste.

Eating this plant from wild sources is not suggested in modern times since the plant is so rarely found in the wild. It is officially protected in Illinois, but is not found plentifully in other states.

Moerman states it is used by Winnebagos for unspecified food item.

(Photo by calphos.berkeley.edu)

Ho-Chunk Plants



Euonymus atropurpurea. **Burning bush, Eastern wahoo,** Nąksikhazmįnąk –little stick berries”

Used by Winnebagos for gynecological aid; a decoction of inner bark taken for uterine trouble.

Smith stated that the inner bark and the root bark were used in treating chills and fevers. The hot tea is used for a foot bath. The root bark is a tonic, and is used very thinly diluted for women to drink during childbirth.

(Photos by usda and arboretum.unl.edu)

Eupatorium maculata, **Joe Pye,** Wirotapanahi

Wirotapąnąhi: –smudge.” Used as a smudge for illnesses. Nahi means –swallow.”

This plant is a native to the Eastern and Central United States. It is clumping perennial which may reach 6 feet by 3 foot wide, blooming July through September, with showy light purple flowers. Propagated by division of older plants and by seed in the spring. (plantoftheweek.org)

Common on ditchbanks, wild marsh, and a variety of other wetland habitats; thrives in moist calcareous soils.

Early American colonists used Joe Pye weeds to treat colds and various ailments and, according to folklore, an Indian called 'Joe Pye' used the plant to cure fevers. (rook.org)

(Photo by biology.burke.washington.edu)

Eupatorium perfoliatum, **Boneset,** Maka'apgihap. –Medicine three leaves” according to Smith

Mashed leaves were wrapped with bandages around splints to help set broken bones. Dried leaves also used to make a tonic, thought to be good for colds, coughs & constipation. Blooms July thru October, 2-4 feet tall. (National Audubon Society Field Guide to Wildflowers, Eastern Region, North America.)

Ho-Chunk Plants

Smith stated that the tea is used to cause sweating and break up a fever. If one spits blood, it will cure that, too.

Boneset was a favorite medicine of the North American Indians, who called it by a name equivalent to ~~a~~gue-weed." The leaves & tops were gathered after flowering and used as a stimulant, fever-reducer and laxative. It was taken as a warm infusion for attacks of rheumatism.

As a remedy for influenza, it has been extensively used and with the best effects. (www.botanical.com)

Though some authorities claim the name boneset refers to a former use of the plant to aid the healing process for broken bones, others claim that the name is in reference to the plant's use in treating an 18th century influenza called break bone fever. All parts of the plant are quite toxic and bitter. (mobot.org)

(Photos by Natalie Davis and horizonherbs.com)

Eupatorium purpureum **Sweet Joe Pye Weed, Purple Boneset, Queen Of The Meadow Root**

This mid-summer bloomer grows 5 ft. tall. The blooms are clusters of small, pink flowers.

The entire plant is used as medicine with the roots being the strongest part. Crushed leaves have an apple scent & are dried then burned to repel flies. Infuse dried root & flowers for kidney & urinary problems. Tea used to induce sweating, rheumatism, gall stones & dropsy. (altnature.com)

It was widely used by Native Americans including the Navajo who used it as an antidote for poison. (rhs.org.uk)

(Photo by robsplants.com)

Ho-Chunk Plants

Euphorbia marginata, **Snow-on-the-mountain, ghostweed**

Also known as white-margined spurge, variegated spurge.

An annual, ranging from 2-4 feet, it tolerates hot, dry locations and flowers June through October, though flowers are barely visible compared to showy bracts, which are the ~~–s~~now" part of the plant. Found throughout Nebraska primarily in central & east, on roadsides, floodplains, prairies, rangeland, and disturbed sites. Close relative of poinsettia. Sap is caustic & can cause severe skin irritation.

Lakotas crushed the leaves in warm water and applied liquid to injuries to reduce swelling. The sap was reported to have been used by livestock producers for branding cattle in the 1800s.

(Photo by Natalie Davis)

Fragaria virginiana, **Wild strawberry**, Has šjek

Haz-shchek' Haz means fruit, shchek means together. Fruits eaten, usually fresh, sometimes dried. The Ho-Chunk used the strawberry leaves for tea.

(Photos by cas.vanderbilt.edu and usda.gov)

Fragaria vesca, F. virginiana, **Woodland strawberry,** Hastekhu according to Smith.

Moerman states it is used by Winnebagos for beverage, fruit.

Gilmore states the young leaves used to make a tea-like beverage. Fruit used for food.

(Photo by upload.wikimedia.org)

Fraxinus pennsylvanica **Ash, Green ash, White ash**, Rak

Moerman states used by Winnebagos as a hunting and fishing item and a smoking tool.

Gilmore states the wood used to make bows. Young stems used to make arrow shafts. Wood used to make pipe stems.

(Photo by biology.missouristate.edu)

Gentiana puberulenta, **Downy gentian**

This plant is a native perennial about 14 inches tall. The flowers are 2x1" when fully open, August through October. It prefers sandy, dry native prairie, is difficult to propagate from seed and is drought resistant.

The roots of nearly all gentians contain a bitter principle long used in home remedies as a tonic, (www.easywildflowers.com) and are said to be a snakebite antidote. This species has medicinal properties practically identical with the European gentians.

(The following notes are about the general uses of *G. lutea* which is the most commonly used species in the West:) Gentian root has a long history of use as a herbal bitter in the treatment of digestive disorders, especially in states of exhaustion from chronic disease and in all cases of debility, weakness of the digestive system and lack of appetite. The root is taken internally and is harvested in the autumn and dried for later use. (pfaf.org)

(Photo by easywildflowers.com)

Gentiana saponaria, **Harvest bells, Soapwort gentian,** perhaps Maka tcaiwi-tco. Mąką=medicine, chahiwi=blossom, cho=blue

Moerman's Ethnobotany states it is used by Ho-Chunk for tonic. Gilmore states a simple or compound decoction of root was taken as a tonic; it was used alone or with other medicnal plants.

Grows a vine up to 10 feet; Flowers 1/2 inch long, July to September, some remain closed. Tubers edible all year but best in late fall/early spring. Eaten raw or cooked. Some are dried and ground for flour. The summer seeds were eaten like garden peas. Medicinal qualities, see previous entry.

(Photos by usda.gov)

Ho-Chunk Plants

Geum triflorum **Prairie Smoke, Old Man's Whiskers**

Finely cut parsley-like leaves are topped by almost leafless red flower stems from which droop pink flowers that seem to be a cross between a flower, an insect, and a space invader. The seeds are borne on feathery plumes. (swcoloradowildflowers.com)

Perhaps the most distinguishing feature of this North American native prairie plant is the fruiting heads. As the flower fades and the seeds begin to form, the styles elongate to form upright, feathery gray tails which collectively resemble a plume or feather duster, all of which has given rise to a large number of regional descriptive common names for this plant, such as torch flower, prairie smoke, lion's beard and old man's whiskers.

It is a soft, hairy plant growing 16" tall with fern-like, pinnately divided, green leaves (7-19 leaflets) and spreads by rhizomes.

Native Americans once boiled the roots to produce a tea that was used for a variety of purposes such as wound poultices and for sore throat. (mobot.org)

The Blackfoot used crushed seed pods for perfume, and as an eye-wash. Leaves were dried, crushed and mixed with other medicine. Roots were boiled and the decoction used for sore eyes.

Blood Indians of Alberta, part of the Blackfoot Confederacy, used the root for sore gums, sore nipples from nursing, sore eyes and saddle sores. Roots were also dried and brewed for coughs, chicken pox, snow blindness and chapped lips, brewed with fat for children's cankers. Roots often mixed with other general medicines such as horse medicine; for sores or to make horses gain weight.

Collect seeds in mid to late August when the plumy fruits turn tan. Collect in paper bags and keep in a well ventilated place prior to cleaning. A minimum of a 30 day freeze period is recommended. (nativeplantnetwork.org)

(Photos by swcoloradowildflowers.com)

Ho-Chunk Plants

Gleditsia triacanthos,
Honey locust,
Nąksikpahįk means "sharp bushes."

The root is used in a hot bath or sweat bath by the Wisconsin Ho-Chunk.

The Honey locust is a thorny deciduous tree native to eastern North America. It is mostly found in the moist soil of river valleys from southeastern South Dakota south to New Orleans and central Texas, and east to central Pennsylvania.

It can quickly reach a height of 60–100 feet, but is relatively short-lived, about 120 years. It is also prone to losing large branches in windstorms. The leaves are pinnately compound on older trees but bipinnately compound on vigorous young trees. The leaflets are bright green and turn yellow in the fall. The strongly scented cream-colored flowers appear in late spring, in clusters emerging from the base of the leaf axils.

The fruit is a flat pod that matures between September and October. The pods are generally 6+ inches long. The pulp on the insides of the pods is edible and sweet; it should not be confused with Black locust, which is toxic. The seeds are dispersed by grazers, which eat the pod pulp and then excrete the seeds in their droppings; the animal's digestive system assists in breaking down the hard seed coat, making germination easier.

Despite its name, Honey locust is not a significant honey plant, while Black locust honey is prized. The name derives instead from the sweet taste of the legume pulp.

Honey locusts commonly have thorns 7-8 inches long growing out of the branches; these may be single, or branched into several points, and commonly form into dense clusters. It has been suggested that these thorns evolved to protect the trees from now-extinct large animals (which may also have been involved in seed dispersal). Thornless forms are occasionally found.

A Native American story states that the Thunder Spirit recognized his son by his ability to sit comfortably on locust branches, despite the thorns. (wikipedia.org)

(Photo by usda.gov)

Ho-Chunk Plants

Grossularia missouriensis, Ribes missouriense, **Missouri gooseberry, Wild Gooseberry**, Haz-ponoponoh ~~–e~~runching fruit" or perhaps, Punûx or Hapųnųpûxge

Haz means ~~–fr~~uit," and ponoponoh means ~~–e~~runching." Blooms in April and May to 4 feet tall. Gilmore states the berries, which ripen in August and September, were used for food.

Fruit was eaten raw or cooked. Though it has a good flavor, the fruit is somewhat too acidic to be eaten raw for most tastes but when fully ripe makes delicious tarts. The fruit can be dried for later use. (ibiblio.org)

The fruits are usually cooked because it is acidic. A gooseberry, but with a smooth skin, it is about 3/8-5/8" in diameter. (pfaf.org)

The plant grows in central North America from Illinois to Minnesota and from South Dakota to Kansas and Tennessee in dry to moist open woods, thickets and fencerows.

The branches have two different kinds of thorns: large straight thorns (about ½" or longer) that are reddish brown and small straight thorns (¼" or less) that are brown. The large thorns occur in bunches of one to three where the leaves sprout, while the small thorns are abundant on the larger branches. However, smaller branches may lack small thorns altogether. (illinoiswild-flowers.info)

(Photo by biology.missouristate.edu and wisplants.uwsp.edu)

Ho-Chunk Plants

Gymnocladus dioica, **Kentucky coffee tree**, Na^{n}pashakanak according to Gilmore, or *Napacaknakhu according to Smith.

Moerman's Ethnobotany states it is used by Winnebagos for laxative, stimulant, food item, and as a toy and game item. Napacaknakhu to the Wisconsin Ho-Chunk, who steep the bark or the root bark and drink it. For colds, take a hot bath, then drink this tea as hot as you can stand.

Infusion of the root was used as an enema, an infallible remedy for constipation. Pulverized root bark used as snuff to cause sneezing in comatose patient. Seeds pounded in a mortar and used for food. Gilmore states the seeds used as counters in games or tally checks in gambling.

Native Americans roasted the seeds for food. Seeds are very toxic prior to roasting, and should never be eaten fresh off the tree. Trees are late to leaf out in spring and are one of the first to drop leaves in the fall. Genus name is from Greek *gymnos*, ~~n~~aked," and *cladus*, ~~b~~ranch" in probable reference to the absence of foliage for about half the year.

The tree grows in the central United States to a height of 60-80 feet tall with a spread of 40-55 feet. It has blue-green leaflets in summer, turning an undistinguished yellow in fall. Native Americans and early Americans in Kentucky roasted and ground the seeds to brew a *coffee*-like beverage (but without the caffeine).

(Photo by botit.botany.wis.edu)

Ho-Chunk Plants

Helianthus giganteus **Giant sunflower,** Poaxų

Poaxų means –sneeze, sweat or smudge" and was used for the sweat bath by the Wisconsin Ho-Chunk.

Young plants are readily eaten by rabbits. Tubers are cooked and have a similar taste to Jerusalem artichokes. The very small seeds are eaten, raw or cooked. They can dried and ground into a powder, then mixed with cornmeal and used for making bread.

Allow seedheads to dry on plants; remove and collect seeds Remove fleshy coating on seeds before storing. Properly cleaned, seed can be successfully stored. (davesgarden.com)

(Photo by pwrc.usgs.gov)

Helianthus strumosus **Rough-leaved sunflower, woodland sunflower,** Sawazi or Hįnųc

Hįnųc means –yellow legs." Its part of a group called Poaxu, –sweat, sneeze or smudge;" The fumes of the leaves on coals are used to cure headache by the Wisconsin Ho-Chunk.

Grows up to 6 ft tall and is in flower from September to October. The plant requires well-drained soil. It cannot grow in the shade. It requires moist soil.

Probably used raw or cooked like the Jerusalem artichoke.

A decoction of the roots has been used to get rid of worms in both adults and children. An infusion of the roots has been used in the treatment of lung problems. (ibiblio.org)

(Photo by prairiefrontier.com)

Ho-Chunk Plants

Helianthus tuberosus, **Jerusalem artichoke, Tuberous sunflower,** Pa$_n$hi or Pąhi

The edible tubers are elongated, and knobby; several tubers are clustered at the base of each stem. The plant is upright, tall-growing with bristly woody stems. The plants get up to 10 feet tall.

It is a fairly well-known root crop that is occasionally cultivated.

Tubers should not be dug until after frost; waiting until spring is fine, because they sweeten with age. The Hochunk ate the tubers raw, boiled or roasted. The uncooked tubers are crunchy and taste like water chestnuts. When cooked they are sweeter than potatoes, though not as firm. When eaten raw, however, they are notorious for producing gas.

Moerman states it is used by Winnebagos for food. Gilmore states that the noncultivated tubers were eaten raw, boiled or roasted.

(Photos by botany.wisc.edu, and floridata.com)

Heracleum maximum, **Common Cowparsnip,** Mąką'apxete, ~~–m~~edicine big leaves"

Moerman states it is used by Winnebagos for an anticonvulsive, stimulant. Gilmore states the plant tops used in smoke treatment for fainting.

The Wisconsin HoChunk called it Maka' apxete ~~–m~~edicine big leaves." Roots are used for the sweat bath. The Ho-Chunk sweat bath has a 3-foot pit over which a small wigwam is erected. The covering is burlap or flour sacks. In this pit the kettle or flat pan of water is placed and the hot rocks are place in on top of the medicines.

The plant likes moist meadows, thickets and stream banks, grows to 4-9 feet with white flowers 1/4 to 1/2 inch across, in clusters 4-8 inches

across, mainly from June to August. (ct-botanical-society.org)

In the past, young leaf stalks and stems, before flowering, were eaten like stewed celery. Native Americans of the northern United States ate the peeled stalks raw or cooked. Also, the blossoms were steeped in oil and rubbed on the body by native North Americans to keep off flies and mosquitoes.

Reproduces by seed, forming a low-growing rosette, with a large, fleshy taproot its first year. (rook.org)

(Photo by ct-botanical-society.org)

Heracleum sphondylium, Heracleum lanatum, **Cow parsnip, beaver root** *(see above)*

Hierchloe odorata, Savastana odorata, hierchloe borealis, **Sweetgrass, Vanilla grass,** Manuska –~~s~~mells good"

Sku means sweet. Moerman states it is used by Winnebagos for ceremonial medicine. Gilmore states the plant was used as incense in ceremony to invoke good powers and in peace ceremony.

Spreads by underground stems called rhizomes. The Latin name *Hierochloe* is from the Greek, *hieros*, "sacred", and *chloe*, "grass" and *odorata*, from "fragrant."

Native to northern Europe, also used for religious purposes there: Strewn before church doors on saints' days in northern Europe. Brewed as a tea, was used for coughs and sore throats, chapping , windburn, and as an eyewash. Used by some Native Americans for basket making.

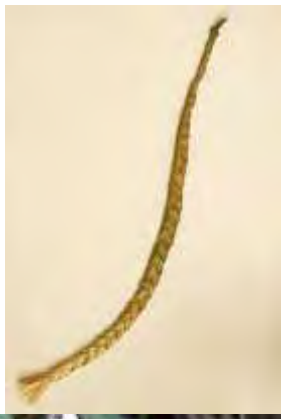
Typically harvested at 14 inches; encourages positive energies to enter; Often used in sweatlodges; clippings are used under the hot rocks and rubbed on the body in the sweat lodge.

–~~S~~weetgrass is pleasant to all the spirits. Good spirits like it. Bad spirits like it. All like it. … So sage must be burned to make the bad spirits sick. Then sweetgrass to bring good spirits." Used for prayer and cleansing.

Origins of sweetgrass:

–~~T~~he Little People became so fascinated by their reflection in a pool that they pined away, leaving only a grass, bearing their sweet

fragrance, a memory of their vanity."

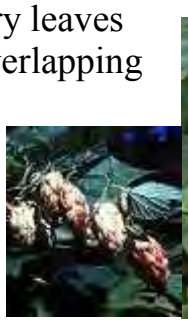


—Sweet grass sprang up wherever the White Buffalo Calf Woman's tears fell as she changed from a red buffalo to yellow, to black, to white." *(Last three paragraphs from Plants of Power by Alfred Savinelli)*

(Photos by depts.washington.edu and partner.galileo.org)

Humulus americanus, **Hops**

This vine with big sandpapery leaves has a cone-like female flower of overlapping scales whose resinous, bitter taste which has flavored beer.



The Dakota tribe used a tea of the steeped strobiles to relieve pains of the digestive organs, and the Menominee tribe regarded a related species of hops as a panacea.

(Photos by swsbm.com and usda.gov)

Iris versicolor, **Blue Flag, Dagger Flower, Water Flag,** Mąkąsagre

Mąkąsagre means —medicine fast" to the Wisconsin Ho-Chunk.

Blue flag was one of the most popular medicinal plants amongst various native North American Indian tribes.

Some tribes used the root as a protection against rattlesnakes. It was believed that so long as the root was handled occasionally to ensure the scent permeated the person and their clothes, rattlesnakes would not bite them. Some chewed the root and then held rattlesnakes with their teeth and were not bitten so long as the scent persisted. Some tribes used it as a tea and mash for sore mouths.

(Photo by usda.gov)

Juglans species, **Walnut,** Cak, Cak hu

—Chak" means walnut. Black walnut shells are very tough to crack. A hammer works, but is tedious; driving over them with a car is popular. The shells are encased in a mushy greenish-yellow husk that stains & is supposedly useful to get rid of tapeworms.

The Navajo blended the shells with alum to make a brown dye.

Black walnuts are more strongly flavored than Persian walnuts, and higher in protein.

Moerman states the nuts were used by Winnebagos for soup and the husks for black dye. Gilmore adds that the nuts were eaten plain or with honey.

Called –ehak-hu" by the Wisconsin Ho-Chunk, the bark is boiled with maple sugar until it is the thickness of molasses and used for a blood tonic. Some boiled the tree sap for syrup and threw the husks into ponds to poison fish, making them easier to catch.

The leaves have been used in medicine for centuries for ailments like acne, eczema, and ringworm. The leaf is also has strong astringent properties and is an antibacterial agent.

Black walnut was Raksép.
(Photo by Natalie Davis)

Juniperus communis **Juniper, Red cedar,** perhaps Wax cutc

Wax cutc: cedar red, according to Radin.

When picking berries, only the blue berries should be picked. They should be spread out to dry, turned frequently & stored in jars.

Used by Great Basin tribes as a blood tonic. Tribes from the Northwest used tonics made from the branches to treat colds, flu, arthritis, muscle aches, and kidney problems. Indigenous peoples from Eurasia made tonics for kidney and stomach ailments and rheumatism.

Common juniper extract, which can be fatal in even fairly small amounts, was used to make gin and as a meat preservative.

Navajo mothers put a bracelet of dried juniper berries on babies before they put them to bed. The beads are called –ghost beads;" they keep away bad dreams. To make the beads, mothers scatter fresh ripe berries over tall anthills. After several minutes the ants will eat out the center, leaving the desired perforation necessary for stringing.

Ho-Chunk Plants

Some tribes use leaves, dried, moistened or fresh, for throwing on hot rocks in saunas and sweat lodges; berries and sometimes inner bark were eaten to avoid starvation. *(from Plants of Power by Alfred Savinelli)*

(Photos by Linnaeus.nre.se and naturewatch-baltic.org)

Lathyrus polymorphus, **Wild sweet pea, Manystem pea**

This hardy plant flowers from June to July, can fix nitrogen, and cannot grow in the shade. The plant is known to live on the hillsides and open places in western South Dakota.

The seedpods and seeds are eaten.

(Photo by wildflower2.org)

Lespedeza capitata, **Bush clover, round-headed bush clover,** Xąwįzi

Xąwįzi means ~~–y~~ellow weed." The root is used in the sweat bath by the Wisconsin Ho-Chunk.

Tribes of the southwest made a beverage from the leaves. Plains tribes had an interesting use for it, as a ~~–m~~oxa" for neuralgia or rheumatism: Stems were cut into pieces & attached to a person's skin by moistening one end of the stem with the tongue. The stem was then lit & allowed to burn down to the skin. The root was considered an antidote for swallowed poisons. (ionxchange.com)

Part of the plant contains DMT, a psychoactive substance. (Plants of the Gods by Richard Schultes.)

(Photo by personalpages.teds.net)

Liatris aspera, **Blazing star**

(Photo at left by missouriplants.com)

Ho-Chunk Plants

Liatris punctata **Gayfeather, Dotted Gayfeather**

Herbaceous perennial which blooms in tall purple spikes August through September. Prefers full sun; very drought tolerant. Native Manitoba to Alberta, northern New Mexico.

(Photo at right by botany.cs.tamu.edu)

Liatris scariosa, **Blazing star, Dotted button snakeroot,** Cesįc hosˇok ~~li~~ke buffalo tails"

The root extract cures sunburn. The powdered root is a healing, dusting powder for cancer, sore throat, etc. The root is dried, powdered and swallowed dry, just a little at a time, followed by a drink of water. It is also used for poulticing and tied on overnight.

Linum lewisii. **Blue flax, Prairie flax**

Moerman states it is used by Winnebagos for unspecified food item.

Seeds used in cooking for the nutrition and flavor, but should not be eaten raw because they contain cyanide, destroyed in the cooking process.

A poultice of the fresh crushed leaves has been used to treat eye problems. An infusion of the roots is used as an eyewash. (ibiblio.org)

(Photo by waterwiseplants.utah.gov)

Lomatium foeniculaceum, **Love seed**, **Desert Biscuitroot**

Moerman states it is used by Winnebagos for love medicine. Gilmore also states that a compound containing seeds was used by men as a love charm.

Root, cooked, can be dried and ground into a powder and then be mixed with cereal flours or added to soups etc. Seed; most likely used as an aromatic flavoring in cooked foods. (ibiblio.org)

(Photo by noble.org)

Ho-Chunk Plants

Photo by peyote.net

Lophophora williamsii, **Peyote**

Chop peyote fine, or chew it, and apply it to the skin, first it stings, then it numbs area. From Melodie Cleveland, June 2005.

According to the D.E.A., all parts of the peyote plant (*Lophophora williamsii*) is Schedule I in the United States. This means it is illegal to buy, sell or possess it without a D.E.A. license with one exemption:

> **Federal Native American Church Exemption**/TITLE 21-Food and Drug Administration, Department of Justice/PART 1307—MISCELLANEOUS—Table of Contents/Sec. 1307.31 Native American Church: The listing of peyote as a controlled substance in Schedule I does not apply to the non-drug use of peyote in bona fide religious ceremonies of the Native American Church, and members of the Native American Church so using peyote are exempt from registration. Any person who manufactures peyote for or distributes peyote to the Native American Church, however, is required to obtain registration annually and to comply with all other requirements of law.

People cut off the crown and dry it for ingestion. It has up to 30 alkaloids, primarily mescaline, and further psychoactive phenylethylanines and isoquinolines. When the crown is removed, the plant may grow new crowns and thus peyotes with multiple heads are common. Plant revered and used in important ritual and ceremonial sacraments.

The hallucinogenic effects of peyote are strong, with kaleidoscopic, richly colored visions. The other senses can also be affected. There are reportedly two stages of intoxication, a period of contentment and sensitivity, and then a period of great calm and muscular sluggishness, with a shift in attention from external stimuli to introspection and meditation.

Spanish chronicles described use of peyote by Aztecs. Also valued today by Tarahumara, Huichol and other Mexican Indians as well as members of the NAC. An early Spanish chronicler, Fray Bernardino di Sahagun estimated, on the basis of events recorded in Indian chronology, that peyote was known to the Chichimeca & Toltec at least 1,890 years before the arrival of Europeans.

Danish Carl Lumholz showed that a symbol employed in Tarahumara Indian peyote ceremony appeared in carvings preserved in MesoA-

merican lava rocks. Archaological digs in Texas reveal peyote specimens in contexts dating 7,000 years back. (From *Plants of the Gods* by Richard Schultes.)

Here are some of the items related to the peyote religion specific to the Winnebago Tribe, recorded in "The Peyote Cult" by Weston LaBarre:

- Crashing Thunder, Winnebago, experienced a state of deep depression & intense fear.
- Blindness cured, reported by Crashing Thunder
- Winnebagos hold death-consolation, death-anniversary and doctoring meetings
- Winnebagos dismantle tipi right after meeting
- Both men & women paint for peyote meetings
- Minimum number of buttons eaten is 4 although 40, 60, 100 commonly eaten among Winnebagos
- Winnebago style of peyote drumming: rapid unaccented beating before the singing starts, slackening to match speed of voice. At end of song, fast rattling, ending with last drumbeat.
- John Rave, a Winnebago teacher of Peyote religion, traveled to SD, MN and WI to preach
- Winnebago otterskin cap
- Dried peyote, moistened, molded into balls for ingestion
- John Bearskin belonged to the Medicine Lodge, after his parents died, he moved to Nebraska
- The Winnebagos equate the physiological action of peyote with Christ's casting out of devils.

Malus ioensis, **Crab apple, Prairie crabapple,** perhaps Cehu

Apples are up to 3/8 inch, green-yellow and mature September to October. The fruits are hard and sour, but have been used to make jellies, cider and vinegar. They are eaten by several species of birds and mammals.

The tree likes moist soils along streams and woodland borders and is often planted for the sake of its showy and fragrant flowers.

(Photos by uwbg.edu)

Menispermum canadense **Moonseed, Yellow sarsaparilla,** Wanaghi-haz,

Gilmore states that Wanaghi-haz, means ~~–g~~host fruit" or "fruit of the ghosts or shades."

The Omaha-Ponca name means ~~–g~~rapes of the ghosts," the Pawnee name means ~~–s~~ore mouth." Gilmore states ~~–t~~he several tribal names suggest the sinister character ascribed to this plant."

Mature fruits are black and about a half-inch in diameter in late summer. The single seed somewhat resembles a quarter moon. (biosurvey.ou.edu)

(Photos by missouriplants.com and uwgb.edu)

Mentha arvensis, **Canadian mint,**

A sweetened infusion was taken to aid in the expulsion of gas. The plant was used to make a tea-like beverage enjoyed for is pleasing, aromatic flavor.

Gilmore states the plant was boiled with traps to deodorize them so that the smell of blood would not deter the animals.

(Photos by wildstauden.ch)

Mentha canadensis, **Mint, Wild mint, Field mint,**

Moerman states it is used by the Winnebagos to aid in the expulsion of gas, for unspecified hunting and fishing items, as incense, fragrance, and beverage.

Wild mint is found all over Canada and the northern U.S. It flowers white or pale lilac June to October in semi-shade or no shade. The leaves are harvested as the plant comes into flower and can be dried for later use.

It makes for a very mildly-flavored tea: Put 10 large stalks fresh mint, washed, and 2 quarts water in a large saucepan and bring slowly to a boil. Turn off the heat, cover, and let it steep for five or more minutes to desired strength. Strain and serve. (car.utsa.edu) Fragrant and pleasant tasting, the leaves are also used as a flavoring in salads or cooked foods.

It is used as a domestic herbal remedy, valued for its antiseptic properties and its beneficial effect on the digestion. It is best not used by

pregnant women; large doses can cause an abortion.

A decoction of the ground leaves and stems is used to treat nausea, colds, fevers, sore throats, gas, colic, indigestion, headache, etc. It is used as an insect repellent and was used in homes as a strewing herb and has also been spread in granaries to keep the rodents off the grain.

(Photos by usda.gov)

Monarda fistulosa **Bee Balm, Oswego tea, Horsemint,** Poaxu

Also known as Bergamot, it is in the mint family. The name *Monarda* honors the Spanish medical botanist, Dr. Nicholas Monardes of Seville, who wrote his herbal on the flora of America in 1569 in his book *Joyful News Out Of The Newe Founde Worlde.*

John Bartram of Philadelphia collected seeds near Oswego, New York, in 1743 and sent them to Peter Collinson in England. Collinson named the plant –Oswego Tea" for its point of collection in America.

The common name, Bee balm, comes from the folk use of the flowers, pounded into a poultice, to ease the pain of bee stings.

The prairie native, *Monarda fistulosa*, Poaxų –sneeze, sweat or smudge," blooms lavendar, about four feet tall in July or August.

Gilmore states decoctions of leaves were used on skin eruptions on the face. Smith states the Wisconsin Ho-Chunk used it in the sweat bath and inhaled the fumes to cure a cold.

The Catawba crushed and steeped fresh leaves in cold water and drank the infusion for back pain. Other tribes used it for fever, inflammation and chills.

(Photos by missouriplants.com)

Ho-Chunk Plants

Monotropa uniflora, **Indian pipe, ghost flower, corpse plant, eyebright,** Xąwįska –flowers white" to the Wisconsin Ho-Chunk

Used as a Poaxų or smudge to revive consciousness in one who has fainted.

A waxy white saprophytic flowering plant of deep forest shade, Indian pipe has no chlorophyll, so it cannot obtain energy from sunlight. Instead, it gets nutrients from the soil.

The plant's flesh turns black when cut or even bruised. It also oozes a clear, gelatinous substance when picked or wounded. Such characteristics have earned it names like ghost flower and corpse plant. Its use as a medicine has earned it even more names. American Indians employed it as an eye lotion, as well as for colds and fevers. (acorn-online.com)

(Photo by uib.no)

Nelumbo lutea, **Yellow Lotus, American Lotus**, Cerap, Tsherop (Radin) or Tsherape (Gilmore)

Gilmore states the hard, nut-like seeds were cracked and used with meat to make soup. Peeled tubers were cooked with meat or hominy. Plant characterized as having mystic powers.

According to Andrea Hunter (Osage) from the book *"Recovering Our Ancestors' Gardens," yonkopin* and *chinkapin* are both Native terms for *Nelumbo lutea*. The roots look like long sweet potatoes and the seeds like small round chestnuts. Roots are pulled up in the fall and eaten raw, or boiled if they have been dried. The seeds are collected and eaten raw or stored for later use. To process the roots for storage, scrape the outer skin off the long root. The bare root is then cut into 1-2-inch pieces & strung together in 30-piece strands. The strands are hung up outside to dry on wooden frames like those used for jerky. To prepare the dried root, boil until tender and add salt.

(Photo by sfrc.ufl.edu)

Ho-Chunk Plants

Nepeta cataria, **Catnip,** Nįkjąkmąka [Naturalized from Europe.]

Nįkjąkmąka means ~~–b~~aby medicine." A sweetened tea is given to babies when they are prone to cry and not sleep with colic. Then they will get a good sleep. Catnip is on a list of plants that are used as marijuana substitutes. (*Plants of the Gods,* by Richard Schultes.)

(Photos by annetanne.be)

Nicotiana spp. **Indian tobacco**

Nicotiana quadrivalvis **Indian tobacco,** perhaps Tani or Dani

Gilmores states the plant, tanį́, was cultivated and used for smoking.

At Fort Mandan during the winter of 1804–05, the local Indians graciously offered the Corps some of their own fragrant "tobacco," which Frederick Pursh was soon to name *Nicotiana quadrivalvis*. The tribes of the Plains had possibly acquired the plant from the far West long before Europeans landed on the Atlantic seaboard. But it was not nearly as potent a drug as the Virginia variety, *Nicotiana tabacum.*

Sergeant Gass remarked in his journal that the Indian tobacco was good enough for smoking, but not much of a chew, which was the preference of most of the users in the Corps. (lewis-clark.org)

In tribal folklore the sacred origins of tobacco and its potential as a mediator between people and supernatural beings were common themes. Some narratives emphasized its association with creation, others with fertility.

According to Ho-Chunk tradition, the animals first gave humankind "a weed, pleasant to the sense of smell," to compensate for the incapacity of people to foresee the future—a gift the animals already enjoyed. Thereafter this plant linked humans to their creator, Earthmaker, who was so pleased that he satisfied any requests that were accompanied by tobacco offerings. While humans might not share with animals knowledge of the future, in this way they could

influence it. (college.hmco.com)

The word ~~–t~~obacco" came from a pipe used by the people of Santo Domingo, which was Y-shaped, held to the nostrils, and called ~~–t~~abaco."

Plains tribes carve red pipestone into a hollow L shape with a removable hollow wooden stem. *(from Plants of Power by Alfred Savinelli)*

A favorite remedy for bee stings was the application of wet tobacco leaves.

(Artwork by meemelink.com and photo by wildflower2.org)

Nuphar advena, Nuphar lutea, **Yellow pond lily**

The roots of the Yellow pond lily were consumed. The seeds and tubers were eaten boiled. Also used to season soups and meat. (mnsu.edu)

There is evidence that nymphaea may have been employed in both Old and New Worlds. The isolation of the psychoactive apomorphine has offered chemical support for this idea. *(Plants of the Gods, by Richard Schultes.)*

(Photos by usda.gov)

Nymphaea odorata, **Sweet white water lily,** Keca ˛si

Keca ˛si means ~~–r~~ed turtle feet." Smith wrote it Kecoksik with the same meaning. The root is cooked to make a female remedy for after a woman gives birth.

(Photos by carolinanature.com)

Ho-Chunk Plants

Opuntia humifusa, **Prickly pear, Devil's tongue**

The common name Prickly Pear refers to the red, bristly, pearlike fruit. The fruit, pads, buds & flowers were eaten, raw, cooked, or dried.

Nopalitos (a Comanche recipe)
Prickly pear pads taste similar to green beans, and can be roasted or fried. To fry, use the fat of buffalo, deer, turkey, or other game. Butter may be substituted.

4 prickly pear paddles (called tunas)
8 wild onions
¼ cup animal fat
Salt

Remove needles from the prickly pear 'paddles'. Handle them with pliers & break off the larger needles, then burn off the smaller needles over a campfire. Cut the paddles into quarter-inch strips. Season with a few sprinkles of salt. Sauté the onions and prickly pear strips in fat until tender. (car.utsa.edu)

(Photos by nps.gov and ct-botanical-society.org)

Osmorhiza longistylis, **Sweet cicely**, **Aniseroot, Longstyle sweetroot**

Gilmore states a poultice of pounded root was applied to wounds.

Osmorhiza spp. **Sweet cicely**

Berries of all species were eaten, or used for flavoring. Also ate the boiled roots. (mnsu.edu)

The root was eaten raw or cooked. Very sweet, aromatic and fleshy. A spicy flavor similar to anise, the roots are chewed, made into a tea or used as a flavoring. Leaves and young shoots were eaten raw. Also having an anise

flavor, they are added to salads. The green seeds have an anise flavor and are used as a flavoring in salads, the dry seeds are added to cakes etc.

A poultice of the roots are used in the treatment of boils and wounds. A tea made from the roots is a digestive aid. It has been used in the treatment of stomach complaints, kidney problems, lack of menses, general debility, to ease childbirth and also to bathe sore eyes. (ibiblio.org)

Berries of all species were eaten, or used for flavoring. Also ate the boiled roots. (mnsu.edu)

(Photo by kansasnativeplants.com)

Oxalis europaea **Sourgrass**
Oxalis stricta, **Yellow wood sorrel,**
Xąwįsku –weed sweet"

Xawisku means –weed sweet" to the Wisconsin Ho-Chunk. Give to a baby sick with colic.

Oxalis violacea, **Sheep sorrel**

A small plant, 6-15 inches tall, with clover-like leaves branching from a main stem. Usually one to several small yellow flowers only a half-inch across with five petals. The leaves are more heart-shaped than clover and fold up along the main vein when the sun goes down and open back up in the morning.

Parts eaten were the leaves, flowers, scapes, and bulbs. (mnsu.edu)

(Photo by faculty.etsu.edu)

Pepo foetidissima, **Wild gourd.** (Small photo of blossom from wisplants.uwsp.edu)

Pepo maxima, **Squash** (no photo)

Pepo pepo **Pumpkin** (Photo of round green fruit from oakmediacreations.com)

Ho-Chunk Plants

Phaseolus vulgaris, **Garden bean**, Honi^{n}k (no photo)

Physalis lanceolata, **Lanceleaf groundcherry, Prairie Groundcherry**

Gilmore states the root was used as dressing for wounds, a decoction of root used for stomach trouble, headache. Root used in smoke treatment for unspecified ailments.

Edible fruit was eaten raw or cooked, comes wrapped in paper bag or calyx to protect it from pests & the elements. This calyx is toxic and should not be eaten. Bud clusters, harvested in the spring, were used for food. (ibiblio.org) (Drawing from usda.org)

Physalis longifolia, **Prairie ground cherry**

(Photo, left, from delawarewildflowers.org)

Physalis pruinosa, **Ground cherry, husk tomato.**

Bears pale, greenish-beige berries inside a papery husk. (Photo, right, from lindbloms.se)

Physalis pumila

Both Gilmore and Smith say the Hocak term is ha^{n}pok-hischasu means owl eyes (Hąpok: owl)

Plantago media, **Plantain, hoary plantain**

The leaves heal old sores. Chop leaves as fine as possible for a poultice. [Native of Eurasia.]

Young leaves were eaten raw or cooked; they have a fairly mild flavor but with a slight bitterness; used in salads. The leaves, flowering stems and roots are somewhat astringent, diuretic, expectorant. They are applied externally to skin inflammations, ulcers, cuts etc. A mouthwash made from the leaves helps to relieve toothache. The seeds are laxative. (ibiblio.org)

A Nebraska Winnebago tribal member stated that the Ho-Chunk chew a leaf and apply it to sores and bug bites.

(Photo by botanical-online dot com)

Ho-Chunk Plants

Populus deltoides, Eastern cottonwood, perhaps Hexhú (Radin)

The Eastern Cottonwood is a tree with a broad, open crown of spreading, drooping branches. The common name refers to the abundant, fluffy, cottony seeds released to the winds in late spring. It is one of the fastest growing native trees; on favorable sites, it averages five feet a year.

It is commonly 80 feet, often 100 feet tall, and 2-3 feet in diameter, often larger, up to 10 feet. The crown on old trees, may be very wide-spreading, up to 100 feet wide.

The Eastern Cottonwood prefers wet soils on bottomlands bordering streams, lakes, & valleys, often in pure stands or with willows. It often pioneers on new sandbars and bare flood plains. The buds, leaves and catkins are eaten by grouse.

Flowers appear before the leaves in early spring as two to three-and-a-half inch, drooping catkins, with male and female on separate trees. Fruit matures in spring, and splits into 3-4 parts, with many cottony seeds.

Wood is soft, white to brown, easily worked, and used for crates, furniture, plywood, woodenware, matches, and pulpwood. Plains Indians used the root wood for starting fire by friction, but as firewood, it burns quickly without leaving coals. A dye was made from the leaf buds.

A Nebraska Winnebago tribal member said: "They [the Ho-chunk tribe] use cottonwood for the bark for ciporoke (wigwam) covering. They used to use birch bark, but since there is none here, they use other trees. Red elm is preferred but cottonwood is more plentiful, obviously."

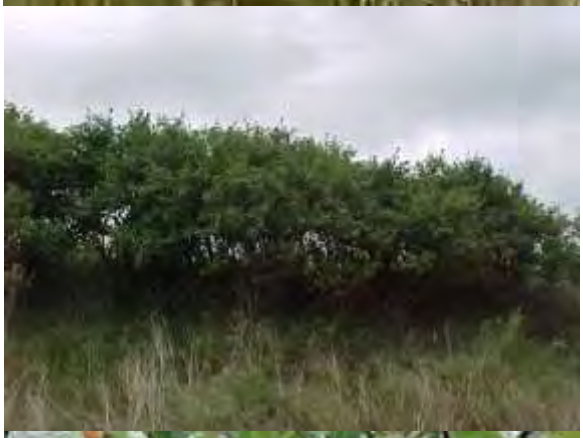
(Photos by Natalie Davis and conps.org)

Ho-Chunk Plants

Prunus americanus **Plum, Wild Plum,** Kąc

Kąc or –kahnch" means plum; Ka^{n}tsh -hu means plum tree. Kansu means plum seed.

Gilmore states this plant is highly valued for its fruit, pitted and dried for winter use. Highly valued eaten fresh and raw. Highly valued cooked into a sauce. Tough, elastic twigs bound into bundles and used as brooms for sweeping the floor.



This is a shrub, small tree or group of trees, 3 to 20 feet high. It is found along roadsides, pastures, riverbanks, and old farmsteads. The fruit is round, red or yellow, and half to one-inch in diameter. It ripens in August and September.

The flesh is succulent and juicy, though it is rather acidic, with a tough skin. The best forms are pulpy and pleasant tasting. The fruit is best cooked, and it can also be dried for later use. The fruit contains one large seed.

The seed is eaten raw or cooked. Do not eat the seed if it is too bitter.

Medicinal uses include tea made from the scraped inner bark, which is used as a wash to treat various skin problems and as a mouth wash to treat sores. A poultice of the inner bark is disinfectant and is used as a treatment on wounds. The bark is astringent, diuretic and pectoral. It has been used for cough syrup. An infusion has been used to treat diarrhea, kidney and bladder complaints. An infusion of the twigs has been used in the treatment of asthma.

Although no specific mention has been seen for this species, all members of the genus contain amygdalin and prunasin, substances which break down in water to form hydrocyanic acid. In small amounts this exceedingly poisonous compound stimulates respiration, improves digestion and gives a sense of well-being.

A green dye can be obtained from the leaves, a dark grey to green dye from the fruit and a red dye from the roots.

The wood is heavy, hard, close-grained, strong. (ibiblio.org)

(Photos by kaweahoaks.com, the last two by Natalie Davis)

Prunus virginiana Chokecherries, perhaps Nâp'ak (Radin)

These plants prefer to live in woods, clearings, hillsides and river terraces; often on dry and exposed sites. It is well-adapted to disturbance by fire. Although easily top-killed, they sprout vigorously from surviving root crowns and rhizomes. Plant frequencies increase on most sites in response to fire.

Although browsed year-round by deer, it is used more intensely in spring and fall. Despite its deciduous nature, it maintains relatively high nutrient levels throughout late fall and winter. Fruits eaten by cottontail rabbit, least chipmunk, and black bear.

The relatively sweet fruits were gathered by indigenous peoples and used to make pemmican and treat cold sores. They have been used to make wines, syrups, jellies, and jams. (rook.org)

The tribes would take the pulp and kernels of the fruit and grind them together and made them into patties or balls. This could also be combined with buffalo meat and fat to make pemmican. The fruits were also dried.

The prussic acid in chokecherry pits is neutralized by boiling or drying. The bark can be used as a tea. Chokecherry juice was used to treat sore throat and diarrhea. Tea made from the bark was used as a cold remedy. Tea made from chokecherry roots was used as a sedative and stomach

remedy. The bark has been used as a flavoring for cough syrups. (davesgarden.com)

Gilmore states the fruit was prepared in unspecified way and used in old-time ceremonies.

This is a tall shrub or small tree growing up to 25 feet high. It can be found primarily along roadsides, edges of woods, and upland areas. The fruit is a round, dark-purple berry with an exceedingly astringent taste when fresh. The fruit ripens in July and August. (extension.umn.edu)

(Photos by ncwildflower.org and Natalie Davis)

Psoralea esculenta, Pediomelum esculentum, **Prairie turnip, Indian turnip, Indian potato**, Tdokéwihi

Tdokéwihi means ―hungry." It blooms light blue in a dense spike, about one foot tall, in early summer. The tribes dug the tubers before the tops were gone, from late May to July, after flowers blossom, but before leaves and stem dry, break off, and blow away in July or August.

It was probably the most important wild food gathered by Indians of the Great Plains. The general impression given by eyewitnesses and ethnographers is that these roots were dug whenever they were encountered, and that other activities were often suspended until an adequate supply was accumulated for the present and future.

Lewis & Clark noted: ―When collected they are striped of their rind and strung on small cords and exposed to the sun or placed in the smoke of their fires to dry; when well dried, they will keep for several years, provided they are not permitted to become damp.

Ho-Chunk Plants

Gilmore reported that Lakota mothers told their children that prairie turnips "point to each other," and used that to engage the children in finding more plants.

The season to harvest the roots may be only two to seven weeks; a shovel or digging tool is needed to harvest the hen- to goose-egg sized roots, which are often four or more inches below the surface. The tribes made digging sticks of ash or other wood and hardened the points with fire and the tips of elk antlers. Gilmore said they were eaten fresh, cooked or dried.

Lewis & Clark noted that the dried turnips were pounded and the flour used in soup; and that the dried roots can be boiled with meat without breaking the root. "They also prepare an agreeable dish with them by boiling and mashing them and adding the marrow grease of the buffalo and some berries, until the whole be of the consistency of hasty pudding." They also ate the root plain.

Moerman's Ethnobotany states it is used by Winnebagos for dried food.

This plant is not common outside of undisturbed prairie. It will decrease with grazing. (lib.ksu.edu) *Esculenta* is Latin for edible. (dnr.state.mn.us)

Lakota Wild Turnip Stew

2 1/2 lb buffalo meat
20 to 25 dried wild turnips (timpsila)
2 to 3 cups dried corn
Dried squash
Salt

Soak turnips in water overnight. Cook slowly for about 1 hour. Add corn and meat, and cook for another 3 hours. Add dried squash and cook an additional two hours. Salt to taste. (car.utsa.edu, barbburgess.com)

(Photos by naturenorth.com, swsbm.com, artofthelakota.com)

Ho-Chunk Plants

Quercus spp.

Gilmore states a decoction of root bark given for bowel trouble, especially in children.

Quercus alba

Nąhaska by the Wisconsin Ho-Chunk. –Ska" means white.

Iroquois and Penobscots boiled the bark of the white oak and drank the liquid for bleeding piles and diarrhea.

(Photos by growna-tive.org, Natalie Davis and cas.vanderbilt.edu)

Quercus macrocarpa, Bur Oak, Chaške, Chašhke-hu

Gilmore states the acorns (perhaps húdjara or húdjera) were leached with basswood ashes to remove the bitter taste. Young growths were used to make popgun pistons.

Swamp oak was called Piksi-gu by the Wisconsin Ho-Chunk, (–nut tree") it is used in combinations of medicines.

A slow-growing, long-lived tree with the largest leaves and acorns of all the oaks, chaske trees develop a massive trunk and broad crown with strong branches and provide food and shelter to a wide range of wildlife. Will grow in a variety of soils in full sun. Height and spread are 70-80 feet.

Very large, the seed can be up to two by one-and-a-half inches. It can be ground into a powder and used in making bread, dumplings and as a soup thickener. The seed of this species is considered to be one of the most palatable. Some trees have sweet seeds which can be eaten plain. If the seed is bitter, the tannins can be leached by washing the dried, ground seed in water, but many minerals will be lost. One traditional method of preparation was to bury it in boggy ground over winter; the germinating seed was dug up in the spring when it would have lost its astringency.

As medicine: Bur oak bark is astringent and tonic. An infusion was used to treat diarrhea. A decoction of the root or inner bark treated cramps

and poison ivy. Galls produced on the tree can be used to treat hemorrhages, chronic diarrhea, dysentery etc. Some tribes used the oak to treat heart ailments, broken bones, and to close bleeding wounds. (museum.state.il.us)

As dye material: Oak galls are sometimes produced in great numbers on the tree and can be used as a dyestuff. (ibiblio.org)

The book *"Recovering Our Ancestors' Gardens,"* relates how the Luiseño people gather, clean, grind and prepare acorns:

–Gathering. Gather acorns during the summer until the rainy season begins, late summer to early fall. The meat of the acorns must be firm and dry; once they are wet they are no good. The centers of the acorn should not be dark brown, a sign that they were harvested too late. The nut should be yellowish. Gather both small and medium size acorns. Small acorns are said to have a better taste. Large acorns taste dry.

–Cleaning. Remove the shell from the acorn by hammering the flat end of the acorn with a hammer stone. The acorn should split into thirds or halves but not into small pieces. A good size hammer stone would be about two inches wide and six inches long, weighing about two pounds, and should be smooth and rounded. Place acorns on cookie sheets out in the sun to dry. This can take several days. You may use the oven, but using the oven turns the acorn black, which changes the taste.

–To test the acorns for dryness, put your finger in the center of the meat. Once dry, place acorns on a large flat basket and begin tossing them in the air and blowing off any skin. Pick up a few acorns in your hands and rub them together so as to take off the dry outer skins. About 60% of the skin is removed this way. Take a paring knife and remove what skin is left.

–Grinding. Place the cleaned acorns through the meat grinder; you will get half the amount of acorn you started with. Sift until it makes a fine grain. Use a large oval rock with hollow middle and grind the meat with a smaller one in hand until the acorn meal is very fine. Place this in the sifter for one last time. Now you will have the amount you started with. Pound the meal to remove the air from the acorn meal.

–Leaching and washing. Use a small window frame and set it on two boxes over a large pot of water. Use fine cheesecloth and put this over the screen that is on the frame; then pour the acorn flour onto the cheesecloth, straining it into the pot. Once all the meal is covered by a layer of water, stop pouring until all the water soaks through the meal; repeat the process at least 20 times. With a water dipper add cold water. Let the water run through your fingers slowly so as not to splash the flour out of the pot. The water will soak through the meal; this should be done at least 20 times, un-

til the meal looks clear and clean of all foreign specks. Taste to be sure that the bitter tannic-acid taste has been removed by this leaching process. If so, let stand until all the water has drained completely out.

–Cooking. Use a wood stove or a campfire. Set the pot of meal on a low flame an hour. Stir frequently. As it thickens, add water. In the last 15 minutes of cooking, add three times as much water as meal. Taste to see if it is done. Drop a little meal in a glass of cold water, if it stays together and drops to the bottom, it is done. If it falls apart in the water, it needs more cooking. Now you have *weewish.*

–You can add various berries and nuts. Acorn meal can be substituted for cornmeal in most recipes. Acorns can also be used in place of chick-peas, nuts, peanuts and olives in a variety of dishes and is excellent in soups and stews."

Quercus rubra, Huksigu or Piksigu –nut tree" to the Wisconsin Ho-Chunk, (pi, oak; ksik, narrow; hu, trunk)

Rhus glabra, **Smooth sumac**, Haz-ni-hu

Haz-ni-hu, –water-fruit bush" haz means fruit, ni means water; hu means plant, tree or bush according to Gilmore. Haznįhu to the Wisconsin Ho-Chunk.

Gilmore states the roots were used to make yellow dye. Dried red leaves used for smoking. Compound decoction of leaves taken as an antidiarrheal.

Rhus hirta, **Staghorn sumac**, Haznįhu –berries water leaking out" to the Wisconsin Ho-Chunk.

The green leaves at the top are cooked to cure stomach-ache, diarrhea and cramps. It is also a digestive aid to clean out the system. The inner bark & root bark are used as poultices for sores. The berries are used in combinations with other medicines. The fruit is as a beverage, sweetened by maple sugar.

(Photos by missouriplants.com, botit.botany.wisc.edu, and andersonprairie.org da.gov)

Ho-Chunk Plants

Ribes americanum, **American blackcurrant, Wild blackcurrant** Wak'an recawa (snake's navel) (Radin)

Gilmore states the root was used by women for ~~–u~~terine trouble." Moerman's Ethnobotany states it is used by Winnebagos for gynecological aid.

Fruit, raw or cooked, used in jellies, jams, pies and preserves, or dried for later use. Comments on the flavor vary considerably. The fruit is up to 5/8 inch diameter. (ibiblio.org)

(Photos by rook.org and painetworks.com)

Robinia pseudoacacia, **Black locust**

The root is used in a hot bath or sweat bath by the Wisconsin HoChunk.

The main use of this tree is for its wood, which is very durable, doesn't decompose easily and doesn't vary terribly with temperature or humidity. It was used by native peoples for arrows.

Tribes made emetics and laxatives from the bark, though this was considered to be a drastic remedy. Tannins and a yellow dye were also extracted from the bark.

(Photos: usda.gov, atlas-roslin.com, invasive.org & fotopedia.com)

Ho-Chunk Plants

***Rosa arkansana,* Wild Rose,** Haš̌suc

The Wisconsin Ho-Chunk use the root of *Rosa carolina, Rosa humilis.*

Haš̌suc, ~~–re~~d berries," cooked for a baby medicine when the mother is going to have another baby. The [first] baby will get sick easily then & needs this remedy to keep it well.

Rose petals have many uses from jelly to potpourri. The white base of the petals should be clipped to avoid bitterness and always collect rose petals that have not been sprayed with pesticides and are as far from car exhaust fumes as possible. Always collect in the early morning just after the dew has dried and before the suns rays heat the plant up.

A Nebraska Winnebago tribal member stated that the root is made into a tea for women's abdominal infections.

(Photos by Natalie Davis)

Rosa carolina, Haš̌suc ~~–b~~erries red"

Rubus idaeus **Wild raspberry**, perhaps Hazsucgé

Haz: berry; suc: red.

This plant's medicinal use by native American Indians is extensive. Chippewa, Iroquois, Cherokee and Omaha used this plant for everything from toothache remedies to cough medicines to analgesics. (davesgarden.com)

It is useful as an astringent. An infusion of the leaves, or the bark of the roots, has been found an excellent remedy in chronic diarrhea, cholera in children, relaxed conditions of the intestines of children. During labor, raspberry will increase the activity of contractions when they are feeble, even where ergot has failed, and is good for after-pains.

It makes an excellent syrup for treating dysentery. The fruit contains little nourishment, but rarely disturbs the stomach, and promotes the action of the bowels. (ibiblio.org) Black raspberry root bark was used in a tea by the Pawnee, Omaha and Dakota tribes for dysentery.

(Photos by commons.wikimedia.org)

Ho-Chunk Plants

Rudbeckia hirta, Black-eyed Susan, Poaxų

Used for the sweat bath by the Wisconsin Ho-Chunk. Other tribes used root tea to treat worms and colds. As an external wash, they used it to treat sores, snakebite, and swelling. Root juice was used to treat earaches. (daves-garden.com)

(Photo by missouriplants.com)

Sagittaria latifolia, **Arrowleaf**, Ši ąporo

Often First Peoples claimed wapato patches by clearing the area of competing growth. Harvest was in October and November. Since the tubers lay underwater, the work was done by canoe, pulling the roots from a kneeling position, or by wading in the water and dislodging the tubers with the toes. They kept for several months if left unwashed and raw, and were stored and cooked as needed by baking in hot ashes. They are an excellent source of carbohydrate.

The journals of Lewis and Clark relate that their diet while traveling in Oregon was elk meat and wapato bulbs, purchased from the Indians. The wapato resembles the potato in texture, but has a sweeter taste.

Gilmore said roasted or boiled tubers were eaten. "Ši ąporo" means "arrowhead lily" or "pond lily."

(Photo by fp.bio.utk.edu)

Salix species, Salix humulus, **Willow**, Ruxi or perhaps Rughi

A Nebraska Winnebago tribal member related that willow sticks were used for counting and willow bark used for headache.

Gilmore states poles were used to sustain the thatch of the earth lodges and to form the frame of the sweat lodges.

Different tribes boiled the inner root bark, then drank strong doses to induce sweating in cases of chills and fever. Some prepared their fever remedies from the bark of the red willow, while still others plunged into willow root baths for the same purpose. Many tribes knew the inner bark of the willow ground into powder and mixed with water relieved headaches and was used for potential heart attacks.

Salix discolor is native in Great Plains

region. *Salix humulis*, the Prairie Willow, is native to the Great Plains. *Salix interior* is the Sandbar Willow, also a Plains native.

(Photo by usda.gov)

Sambucus canadensis **Elderberry, Common elder,** Hicocox or perhaps Náji Hicocox means ~~h~~ollow stem." Náji may mean ~~st~~anding." The Wisconsin Ho-Chunk use a teaspoon of the inner bark in a cup of hot water as a quick physic.

Elderberries are ripe when they are purplish black. Discard those not fully colored. All other parts of the plant are poisonous.

Native Americans used the bark, flowers and fruits for medicines and made beverages, puddings and breads from the berries. Elderberries have more vitamin C per unit weight than oranges or tomatoes.

The stems of the plant easy to whittle hollow to make blow guns and whistles.

(Photos by Natalie Davis)

Sambucus nigra, Hicocox ~~h~~ollow stem"

Sambucus racemosa, **Red elderberry,** Šošoc to the Wisconsin Ho-Chunk

The bark is physic and emetic. Also used for constipation by the Wisconsin Ho-Chunk.

Fruit not palatable, though it is harmless when cooked. Contains compounds that can cause nausea, vomiting, diarrhea, and gastrointestinal pain. The berries contain very little of these substances, the stems contain moderate amounts, and the roots contain enough to cause death to hogs. Medical uses have been made of all parts.

Dyes can be made from the bark, fruit, and stems, and an insecticide from the dried leaves. (rook.org)

(Photos by linnaeus.nrm.se)

Ho-Chunk Plants

Sanguinaria canadensis **Bloodroot,** Pex hišuc'u or Pexhišuk to the Wisconsin Hochunk

"Peh" is "gourd;" "he-shootch" is "to make red," referring to the use of the plant for dying gourd rattles in ancient times. Likes rich woods, has a white flower in early March. Used in treatment of bronchitis, asthma, croup and laryngitis. Dried rhizomes are used after collection in late spring to early summer or in fall when leaves have dried. Should be dried carefully in the shade.

Gilmore states that the root was boiled with objects as a red dye and used as a decorative skin stain. It was used as a dye and a medicine for the Wisconsin Ho-Chunk. A favorite rheumatism remedy among the Indians of the Mississippi region, some drank a tea of the root.

(Photo by cricket.sc.edu)

Sanicula marilandica, Black snakeroot, Mąką'apzazac

Mąką'apzazac means "medicine leaves fine small roots." The Wisconsin Ho-Chunk chewed the root and sprayed it on their feet to keep snakes away. Some tribes are reported to have relied upon its internal use in snake bites." (ibiblio.org)

(Photo by ct-botanical-society.org)

Shepherdia argentea, **Buffalo berry,** Haz-shutz

Its long, thin, silvery (hence "argentea") gray/green leaves and thorny stems commonly cause it to be mistaken for a young Russian olive. Buffaloberry grows to 12 feet; Russian olive to 50. Buffaloberry has bright red or gold fruit; Russian Olives have buff olive-like fruit. Buffaloberry has opposite branching twigs and leaves; Russian Olive, alternate. Both make thickets; Buffaloberry's are denser because of numerous root shoots.

Moerman's Ethnobotany states it is used by Winnebagos for dried food, fruit. Gilmore states the fruit was eaten fresh in season or dried for winter use.

(Photo by colinherb.com)

Ho-Chunk Plants

Silphium laciniatum, **Compass plant,** Choka^{n}wa-hu or Chokahu

Gilmore states the dried root was burned during storms to act as a charm against lightning. Gum from upper part of stem used as chewing gum by children. –Shokǫwa" means –gum" according to Gilmore

The Omaha and Ponca believed that lightning struck where *Silphium lacinatum* grew. Sometimes they burned the plant to ward off lightning. (Morningskygreenery.com)

Compass plant has very long stems, but the large deeply lobed leaves grow up only from the ground, not on the stems.

(Photos by robsplants.com, and Natalie Davis)

Silphium perfoliatum, **Cup plant, square stem,** Rake-ni-ozhu or Rake paraparatsh

Rake-ni-ozhu means "weed that holds water." Rake means –weed."

Gilmore states the root was used in smoke treatment for rheumatism, neuralgia and colds. Rootstock used in the vapor bath.

Moerman's Ethnobotany states it is used by Winnebagos for analgesic, as a ceremonial herb, cold remedy, emetic, herbal steam.

The most common use by Native Americans was for chewing gum. When the top of a cup plant stalk was snapped off, a blob of resinous sap would slowly ooze out and harden. It could be chewed and is said to freshen breath.

Some tribes, like the Winnebago, attached more importance to it. Believing that it had supernatural powers, men would drink a concoction from the rhizome to purify themselves before embarking on a buffalo hunt or other important undertaking. (hort.net)

(Photo by usda.gov)

Ho-Chunk Plants

Smilax herbacea, Nemexia herbacea, **Jacob's Ladder**, **smooth carrion-flower**, Toshunuk ahunske

Toshunuk ahunske –otter armlet," toshunuk is –otter" and ahunshke is –armlet." The flowers smell like carrion, which attracts flies, the major pollinator. Female plants produce blue-black berries. It likes moist woods, thickets and the vine can attain a height of 3-10 feet long. Green flowers are a half-inch across from May to June.

(Photo by inspirezone.org)

Solidago spp.

A Nebraska Winnebago tribal member said to take the yellow part of the flower and rub onto insect bites to relieve itching. Works with all the goldenrods. Similarly, the Meskwakis of Minnesota
ground the flowers into a lotion and applied it to bee stings.

The very small seed is used as a thickener in soups. The seed is only used as a survival food.

The root is applied as a poultice to burns; An infusion of the dried powdered herb can be used as an antiseptic. The blossoms are analgesic, astringent and febrifuge. They have been chewed and the juice slowly swallowed to treat sore throats. A tea made from the flowers is used in the treatment of diarrhea, body pains, fevers and snakebite.

Goldenrod is a gentle remedy for a number of disorders. In particular, it is a valuable astringent remedy treating wounds and bleeding, and particularly useful in the treatment of urinary tract disorders, being used both for serious ailments such as nephritis and for more common problems such as cystitis. The plant contains saponins that are antifungal and act specifically against the Candida fungus which is the cause of vaginal and oral thrush. The plant is gathered in the summer and dried for later use.

Mustard, orange and brown dyes can be obtained from the whole plant. (ibiblio.org)

Ho-Chunk Plants

Solidago canadensis, **Canada goldenrod**, Poaxų

Poaxų means ~~–s~~neeze, sweat or smudge." Used for the sweat bath by the Wisconsin Ho-Chunk.

(Photo by Natalie Davis)

Solidago rigida, **Stiff goldenrod**

Used like Solidago speciosa. A blood purifier and a great female remedy, taken three times a day according to the Wisconsin Ho-Chunk.

(Photo by nativeplant.com)

Solidago speciosa, **Showy goldenrod,** Mąką rejų serec (Smith)

Mąkąrejųserec ~~–m~~edicine root long" For incontinent urine. The best blood purifier of the Wisconsin Ho-Chunk.

(Photo by usda.gov)

Sphaeralcea coccinea, Malvastrum coccineum, **Scarlet globemallow, Red false mallow**

Perennial, 6-18 inches tall, flowers in May through July and prefers dry, open prairie areas with sandy or gravelly soils. Very drought resistant; loses most of its leaves before hot weather begins. High levels of vitamin A. Its gray appearance is due to thick covering of star-shaped hairs.

The Dine people ate its roots during periods of food shortage. Cheyenne made infusion of roots, stems and leaves to mix with other medicines to make them taste better. Comanche used infusion of plant to treat swellings. The Dakota chewed the plant and applied it as a salve for wounds and sores.

(Photo by em.ca)

Ho-Chunk Plants

Thuja occidentalis, Arbor vitae, white cedar, Waziparasge –pine cedar" to the Wisconsin Ho-Chunk.

Waz or Wax means cedar.

This is a scale-leaved, medium-sized evergreen, 30' to 50' tall and 10' to 15' wide which usually has a conical shape. It is dense and can have one or more trunks. In summer, the leaves are small and scale-like, only 1/8th inch long which overlap, forming flattened, rope-like shoots. The crushed foliage emits a pungent tansy-like odor.

It is a favorite food of deer. (hort.uconn.edu) Its common name, white cedar is from the light color of the wood. Other common names include Arborvitae and Swamp cedar; the foliage is rich in vitamin C;

Native Americans and early European explorers used it; the whites called it Arborvitae, "Tree of Life". This name dates from the 16th century when the French explorer Jacques Cartier learned from the Indians how to use the tree's foliage to treat scurvy.

Once native to Europe, it became extinct during the Ice Age.

Its leaves are a browsing favorite of whitetailed deer, snowshoe hares, and porcupines. One of the best winter browse species for deer, it is often overbrowsed, which can retard growth and even kill a tree. A high browse line is frequently evident on larger trees. Moose browse only when other food is scarce. Stands provide thermal cover for white-tailed deer, moose, and black bear. (rook.org)

(Photo by treeplantflowerid.com)

Ho-Chunk Plants

Symphyotrichum ericoides, aka *Aster ericoides,* **Heath aster**

According to Weeds of Nebraska and the Great Plains by Nebraska Department of Agriculture, Native Americans thought that the smoke of burning heath aster was helpful in reviving persons who had fainted. Some brewed a heath aster tea to relieve headaches.

(Photo by Natalie Davis)

Tilia Americana, **Basswood, Linden** *Tilia europea,* Hi^{n}shke, Hiskera, perhaps Hicke

Gilmore states the inner bark fiber was used by Omahas and Poncas for making cordage and ropes. The Pawnee used it for spinning cordage and weaving matting. No mention of the Ho-Chunk people except for the Ho-Chunk word for it. Used in making cord to tie lodge poles together.

Hį̌šge, The root is used for female weakness by the Wisconsin HoChunk.

(Photos by floridata.com)

Toxicodendron radicans, **Poison ivy**

The root and leaves are used. Chop a little very fine and open up a boil or carbuncle and put a little in, and it will draw the swelling. One must know just how or else it is very dangerous. See *Quercus macrocarpa.* (Photos by armofthesea.info)

Ho-Chunk Plants

Toxylon pomiferum **Osage orange, Hedge apple, Bois d'Arc "**bow wood",

Osage orange is not native to Nebraska, but was highly sought and traded for as material for bow-making. Gilmore has Omaha, Ponca and Pawnee words for the plant, but not a Ho-Chunk word.

The wood is heavy and durable. It is used for posts, and because of its strength, the native people prized the wood for bows and war clubs.

The name of the tree comes from the Osage tribe, which lived near the home range of the tree, and the citrus aroma of the fruit after it is ripe. Not all of the trees will have fruit because Osage orange are either male or female, and only female trees have fruit.

The fruit of the Osage orange, also called a ~~h~~edge apple," stands out vividly in an autumn treeline. It is a large, dense, green wrinkled ball up to six inch diameter that often persists on the tree after the leaves have fallen off. In good years the branches will bend low with the weight of the fruit. (gpnc.org)

(Photo by weather.nmsu.edu)

*Tradescantia virginica***, Spiderwort**

The Cherokee and other Native American tribes used Virginia spiderwort for various food and medicinal purposes. The young leaves were eaten as salad greens or were mixed with other greens and then either fried or boiled until tender.

The plant was mashed and rubbed onto insect bites to relieve pain and itching. A paste, made from the mashed roots, was used as a poultice to treat cancer. A tea was used as a laxative and to treat stomachaches associated with overeating. Virginia spiderwort was one of the seven ingredients in a tea used to treat ~~f~~emale ailments or rupture." It was also combined with other ingredients in a medicine for kidney trouble. (plants.usda.gov)

(Photo by nearctica.com)

Ho-Chunk Plants

Tragopogon spp. **Salsify, Goatsbeard, Oyster plant,** [Introduced from Europe] A European annual with yellow flowers and a showy, spherical seed head. Root cooked and eaten.

(Photos by swcoloradowildflowers.com and Natalie Davis)

Trifolium pratense **Red Clover**

[Introduced from Europe] The dried flowers, leaves and combinations with other herbs were used as a medicine for heart trouble, but mainly as food or tea. Dried blossoms were put in stews, where they added vitamins and minerals and a hint of sweetness . Tea was made by steeping a handful of dried blossoms and a big spoonful of dried mint, pouring on about a pint of boiling water.

Boiling and eating the blossoms with salt and butter is an acceptable vegetable. Fresh clover blossoms cooked for a very short time in a small amount of water, with butter and brown sugar is quite good.

(Photo by Natalie Davis)

Typha latifolia, **Broadleaf cattail**, Kcoxi, Kšo-hí ¸or perhaps Witcíhu Kšo-hí ¸where kšo is prairie chicken and hí ¸is feather.

Witcíhu means cattail plant. The plucked down resembles in color and texture the fine feathers of a prairie chicken

Gilmore said the down used as a dressing for burns and scalds and on babies to prevent chafing.

(Photo by Natalie Davis and rook.org)

Ulmus americana, **American Elm,** perhaps Nâkárake

Gilmore states that the fibrous inner bark used for popgun wads.

The size of American elm is distinctly different from Siberian elm, being three to six inches long, and one to three inches wide. The Siberian is about one inch long, although the proportions are similar.

Infusions and decoctions of American Elm inner bark were used by many tribes. An infusion was made for colds and severe coughs. Southeastern tribes used decoctions for as remedies for menstrual cramping, and the Northern Cheyenne used elm as a gynecological aid to stabilize the child in the womb. (livingmemorialsproject.net)

(Photos by cnr.vt.edu)

Ulmus fulva, Ulmus rubra, **Slippery Elm, Red Elm**, Wakirikirik (Gilmore) or Mank'a'rak (Radin)

A decoction of the inner bark was used as a laxative. Forked trees were used for the posts in building the earth lodge. Inner bark fiber used to make cordage. Log sections used to make corn mortars & pestles. Weathered bark used in fire-making. Wood used for fuel. The reddish wood used to make small mortars and pestles for grinding medicines and perfumes. Fibrous inner bark used for popgun wads.

Makarak Ap, meaning ~~–~~elm leaves," was used as a sore throat lozenge and in many combinations by the Wisconsin Ho-Chunk.

A Nebraska Winnebago tribal member stated that the leaves of red elm, in the spring before it sets seed, are used as tea for a pain reliever.

After removing as much venom as possible, some tribes used the ground inner bark and young early spring leaves as a poultice applied directly to snakebite. (Photo by Natalie Davis)

Ho-Chunk Plants

Urtica dioica **Nettle**

Nettle quiets allergy symptoms and is useful in resolving coughs and colds; it also nourishes the adrenal glands, where adrenalin is made.

To harvest: Don't touch them as you gather; the leaves and stems have a sting until the plant is dried or cooked. Wear gloves if you want, and use scissors to cut the tops of the plants into a basket. Use fresh, or dry for a few days on screens or newspaper away from sunlight. Add freely to soups and stir fries, fresh or dried.

Gilmore states that the dried stalk fiber was used to make cloth and cordage, and that the cloth was used in the Sacred Bundle of the Tent of War. Plant fiber used by little boys as wadding for popguns.

(Photo by rain-tree.com)

Verbascum thapsus, **Mullein, Flannel plant,**
Caskanącawa

[Introduced from Europe] Caskanącawa –sheep's ear." The Wisconsin Ho-Chunk would heat the leaves and apply to reduce a swelling.

Few plants boast such a variety of medical uses. Many accounts of tribes using of the plant medicinally can be found. Mullein contains large amounts of mucilage making it soothing to mucous membranes. Leaf tea has been used to treat coughs, colds, asthma and bronchitis. There are accounts of Native Americans tying the roots around the necks of children who where teething. Oil extract of the flowers is used for earache. The leaves have been used externally to treat various wounds and sores. Historically it was used to insulate feet against the cold. There are accounts of the leaves being smoked and used in sweat lodges. (2bnthewild.com) The plant's first year is as a rosette. The next year it flowers, produces seed and dies.

(Photos: Rosette: missouriplants.com and Mature plant and flower spike: eeob.iastate.edu)

Ho-Chunk Plants

Verbena hastata **Blue Vervain**, **Swamp Vervain,** Mąkąrejųksuksik to the Wisconsin Ho-Chunk

Mąkąrejųksuksik means –medicine fine roots" The fine hair roots are used for female weakness.

Prefers damp thickets, roadsides, shores. Grows to two to six feet tall. Flowers bloom in July through September.

Medicinal parts are roots, leaves, stems. Expels worms, is said to be a capable agent for all diseases of spleen & liver. If given in intermittent fever in a warm infusion of powder, results are considerable. When circulation of blood is weak, it will increase and restore it to proper operation.

Dr. O.P. Brown (1875) in –The Complete Herbalist" said*: I found after close investigation … that prepared in a certain way and compounded with boneset, water pepper, chamomile in the best whiskey had no equal for the cure of fits. A more valuable plant is not found within the whole range of the herbal pharmacopoeia.*

(Photo by Natalie Davis)

Veronicastrum virginicum **Culver's root,** Mąkąski to the Wisconsin Ho-Chunk

Mąkąski means —medicine root bitter." two to five feet tall with whorled leaves and white flowers. Likes thickets, meadows and prairies.

It was named for Dr. Coulvert, an American physician of the late 17th century. The plant is native to the Eastern U.S., likes full sun.

Culvers root was traditionally used as a laxative, to induce sweating for a fever, to stimulate the liver and as a diuretic.

Also known as Makarejuzi, –Medicine root yellow." This is a physic, but also is used for a poultice for a pain anywhere by the Wisconsin Ho-Chunk.

(Photo by museum.state.il.us)

Ho-Chunk Plants

Viburnum lentago,
Nannyberry,
Wuwu

Gilmore said the fruit was eaten from the hand, but not gathered in quantity. The berries ripen to a very dark purple.

The tribes used a tea made from the bark to increase urine flow. Bark of viburnums used to treat malaria and uterine infections. (grownative.org)

(Photos by ct-botanical-society.org and mnpower.com)

Viburnum opulus **European cranberry-bush, cramp bark**

Gilmore states the stalks, without the pith, used to make popguns in the absence of elderberry.

There are two kinds of cranberry bush, European cranberry bush (*V. opulus*) and the American cranberry bush (*V. opulus var. americana*), which are difficult to tell apart. (hort.cornell.edu)

(Photo by usda.gov)

Viola spp. **Violet**

All the members of the viola family are edible; American Indians used root tea for pain in bladder. The root and leaves traditionally used to induce vomiting, poulticed for skin abrasions, boils. (biopoint.com)

The leaves are high in Vitamins A and C and can be eaten in salads, or boiled for a cooked green. They can also be dried and used for tea. The Indians boiled violet bulbs and dried them for winter food. (gloriamundipress.com)

An infused oil of violet flowers dropped into the ears can relieve tinnitus. (suite101.com)

(Photo by umuc.edu)

Ho-Chunk Plants

Vitus spp. **Grape,** Hapsic

—Hap-seentch" means purple. The vines are sappy and in the spring exude a sap which can be used as a hair tonic. They also hard boil the root in water to get a hair tonic.

Vitis cinerea **Graybark grape, sweet winter grape,** Hapsic

Gilmore states the fruit was eaten fresh and dried for winter use.

The fruit is about 3/8-inch in diameter and is produced in fairly large bunches. Young leaves are wrapped around other foods and baked, they impart a pleasant flavor. The young tendrils are eaten raw or cooked. The sap is made into a tasty beverage. A yellow dye is obtained from the fresh or dried leaves. (ibiblio.org) Ground leaves were poulticed for boils.

(Photo of *Vitus cinera* leaf by Natalie Davis; of *Vitus vulpina* fruit: by em.ca)

Vitis vulpina, **Frost grape, Fox grape**

Gilmore states the fruit was eaten fresh and dried for winter use.

Zizia aptera, **Golden alexander, Meadow parsnip, Heart-leaved golden alexander**

Its flowers are similar to Queen Anne's Lace but are yellow. It provides food to Missouri Woodland Swallowtail larvae, which becomes an iridescent black butterfly with yellow and purple spots along its wing edges.

Historically used by Native Americans as an infusion for fever. It was also used to heal wounds and induce sleep. (earthnotes.tripod.com)

(Plant photo by morningskygreenery.com; butterfly photo by wunderground.com)

Ho-Chunk Plants

Zizania aquatica, **Wild rice, Indian rice, Water rice,** Sį

Gilmore said rice was considered an important dietary element.

Known for its luxurious nutty flavor and chewy texture, wild rice isn't rice. It's a long-grain marsh grass native to the northern Great Lakes area, where it's harvested by the local tribes. It's important to clean wild rice thoroughly before cooking it. Wild rice is also called Indian rice. (answers.com)

Consumed by humans since prehistoric times and a staple in the diet of Native Americans, especially the Ojibwe, Menomini, and Cree of the North Central region, who introduced it to European fur traders. Early English explorers called it Wild Rice or Indian Rice, while the French thought it resembled oats and called it *folle avoine*.

Native peoples of the Great Lakes boiled rice and ate it with beans, corn, or squash. Meat, a bit of grease, or maple sugar was often added for seasoning. Said to keep for up to two years if buried in a canoe on a well-drained, sunny slope. More often stored in birch bark containers.

(Photo by rook.org)

I n d e x

Included are Hochunk names, the literal translation of some of the Hochunk names, American common names, Latin names, the use of the plant and botanical synonyms.

For each term the user is referred to a Latin name because the catalog itself is in order alphabetically by the Latin name.

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