Culturally Significant Plants

Manhattan, KS. Plant Materials Center

Presenter's Name:

Name of Meeting:

Date:

Agency:

Job Title:

Location:

Our Mission:

The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment.

Our Vision:

Harmony between people and the land.

Plants Materials Program:

We develop plant materials and plant technology for the conservation of our Nation's natural resources.

sideoats grama

Bouteloua curtipendula (Michx.) Torr.

Other common names; tall grama, avenilla, banderilla, banderita.

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Culturally:

- The grass was bundled, dried and made into brooms or hairbrushes.
- Moist grass was laid onto hot stones to prevent steam from escaping while cooking.
- Kiowa warriors, who in battle, had killed an enemy with a lance, wore the seed stalk in their hair because the grass stalk resembles a feathered lance.
- This is the state grass of Texas.

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vanilla grass

Hierochloe odorata (L.)

Synonyms: *Torresia odorata*.

Other common names; sweetgrass, holy grass.

Medicinally:

- Smoke from burning leaves was used for colds. It was taken orally as a tea or soup for colds, coughs, fevers or congested nasal passages. Windburn and chapping were treated by an infusion of stems soaked in water or as a salve when mixed with bison neck tallow.

Culturally:

•This grass is known for its sweet, aromatic scent, which is enhanced when it rains or is burned. The sweet odor is from the coumarin oil, similar to vanilla. Smoke is used to purify dancers. Leaves are mixed with tobacco and used in ceremonies. It is often burned as a purifier. It was braided into women's hair. The braid signified Mother Earth. Each of the 3 strands making up the braid has a specific meaning: mind, body and spirit. Some tribes soaked leaves in water and used this as a hair rinse. Sweetgrass has been used in making baskets, mats, rugs, bedding and cradleboards.

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little bluestem

Schizachyrium scoparium (Michx.) Nash

Synonyms: *Andropogon scoparius*.

Other common names; bearded grass, prairie beard grass, broom beardgrass, small feathergrass, pinehill bluestem, seacoast bluestem.

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Medicinally:

- Ashes from the burnt stems were applied on open sores.
- The ashes were mixed with water and this concoction drunk to relieve indigestion.

Culturally:

- Bundles of stems are used as switches in sweat lodges.
- The stems were rubbed into softness and used as fur-like insulation in moccasins during the winter.
- This is the state grass of Nebraska.

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prairie dropseed

Sporobolus heterolepsis (Gray) Gray

Other common names; northern dropseed.

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Medicinally:

- The Ojibwa would crush the root and apply the poultice to sores. It was also used as a decoction "to remove bile" as a liver aid.

Culturally:

- It is one of the most palatable of the Sporobolus species. Due to its abundance, nutrition and taste it is an important hay and pasture grass in Nebraska. It is widely used for roadside revegetation and prairie rehabilitation projects. It is also used in residential landscaping. It is on the endangered species list in Ohio and North Carolina.

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switchcane

Arurndinaria gigantea (Walt.) Muhl.

Synonyms: *A. bambusina*, *A. gigantea*, *A. macrosperma*, *A. tecta*, *Bambusa newmanii*, *Festuca grandiflora*, *Ludolfia macrosperma*, *L. tecta*, *Miegia gigantea*, *M. macrosperma*, *M. pumilia*, *Nastus macrospermus*, *Triglossum bambusinum*.

Other common names: cane, cane reed, giant cane, large cane, small cane.

Photo courtesy of: USDA NRCS, 1995-Midwestern Wetland Flora.

PLANT FACTS:

- This bamboo grass is native to all the Gulf Coast states. Much of the bamboo you see currently growing are actually introduced grasses from Japan. Prior to settlement this bamboo grew on large areas known as 'cane brakes' in floodplains. It grows perennially with the major mode of reproduction being vegetative by rapid growing rhizomes and not by seed. It normally grows 5 to 6 feet tall, but has been recorded as reaching heights of 30 feet. The stems become hard or "woody".
- When young this grass can be used by livestock as forage. It is nutritious, but can be wiped out by continuous grazing or rooting by feral pigs.

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switchcane

Photo courtesy of: USDA NRCS, 1995-Midwestern Wetland Flora.

FOOD:

- Young shoots were cooked and used as a pot herb in soups or stews. The seed can be ground and used as a flour substitute. Seed harvest cannot be relied upon annually because this grass only flowers at irregular intervals over several years.

MEDICINAL:

- The Houma Indians of California used a decoction of root to stimulate the kidneys and 'renew strength'. Other tribes used the decoction of root as a cathartic.

CULTURALLY:

- This plant was important to the Cherokees way of life. They used it extensively in weaving baskets which could carry heavy loads. It was also the major construction material in building their homes. After a framework of timbers were put up the walls were actually woven out of the leaves from this grass. All the walls would then be covered in mud, giving it a stucco appearance. This made a very comfortable house in keeping out the wind and rains. The early Europeans were astounded at the architecture and craftsmanship the Cherokees used in making their homes.
- Woody stems were used to make flutes, blowguns and arrow shafts. Blowguns were widely used to hunt small game. Dry stems were also used as tinder in their fireplaces.

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blue grama

Bouteloua gracilis (Willd. ex Kunth) Lag. ex Griffiths

Other common names: graceful grama grass, purple grama, red grama, white grama, narajita azul.

Food:

- The Apaches would grind the seeds, mix it with corn meal and water to make a mush.

Medicinally:

- Roots were chewed and blown on incisions of castrated colts.
- As a soup the whole plant would be used for a postpartum medicine.

Culturally:

- The Hopi use the grass as fill for coiled basketry.
- Most of the grass stalks have 2 spikes. For a children's game the Sioux would hunt for stems with 3 spikes. Much like many look for 4 leafed clovers today.
- The grass was used to foretell winter. One fruit spike means a mild winter, the more fruit spikes there are the harsher the winter.

meadow garlic

Allium canadense L.

Other common names; wild garlic, wild onion.

Food:

- This was a valuable food source. The bulbs and leaves were eaten raw or fried with grease and greens. Onion was also used as a seasoning.

Medicinally:

- Tea was made from the bulbs to control coughing, vomiting, colds, scurvy, 'dropsy', asthma, to remove deafness, as a stimulant, diuretic, flatulence reliever, expectorant and mild cathartic. A tincture was used on children to prevent worms, treat colic, on bee or wasp stings and as a croup remedy. The onion was rubbed on the body to protect it from lizard, scorpion, tarantula and snakebites, as well as insect bites and stings. As a smudge, it was used to treat colds, headaches and clear up sinuses. Nursing mothers drank a tea in order to pass its medicinal properties onto their babies. Dairy cows, which eat wild onions, have milk that tastes like onions. Frontiersmen ate wild onions to prevent scurvy.

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Canadian wildginger

Asarum canadense L.

Synonyms: *A. acuminatum*, *A. carolinianum*, *A. latifolium*, *A. reflexum*, *A. rubrocinctum*, *A. villosum*.

Other common names; wild ginger, American wild ginger, Indian ginger, Canadian snakeroot, snakeroot, Vermont snakeroot, heart snakeroot, southern snakeroot, black snakeroot, coltsfoot snakeroot, coltsfoot, false coltsfoot, black snakeweed, broad-leaved asarabacca, asarum, colicroot, beaver potato.

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FOOD:

- All parts of this plant have a spicy taste and are used as a ginger substitute. The root has a pungent, strong aromatic smell like a combination of pepper and ginger. It was used as a herb to make many foods more palatable. Mud catfish were cooked with wild ginger to improve the taste.

CULTURALLY:

- A cooked root was ground into fine powder and sprinkled onto clothes as a perfume.

MEDICINALLY:

•Wild ginger was commonly used by numerous Indian tribes to treat a wide range of medical problems. The Cherokees boiled the roots to make a tea which was drunk to help cure coughs, colds, fevers, stomachaches, poor digestion, headaches, heart problems, diarrhea, to improve the blood, for menstrual problems, as a dewormer and as a stimulant. Extracts from the leaves and stems are being studied to see if they have anti-bacterial properties. Handling the leaves causes dermatitis in some people.

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New Jersey tea

Ceanothus americanus L.

Synonym: *Ceanothus intermedius*.

Other common names; inland ceanothus, Indian tea, walpalo tea, mountain sweet, wild snowbell, red root and spangles.

Food:

- American colonists commonly used this plant as a tea substitute during the Revolutionary War. Numerous Indian tribes had been using it as a beverage before this and introduced its use to the European settlers.

Medicinally:

- Indians drank a tea brewed from it to treat pulmonary problems, colds, pneumonia, fever-reducing agent, anti-inflammatory, constipation, gastrointestinal complaints, diarrhea, tooth aches, to induce vomiting and for women with urinary track infections. As a wash, it was used for bathing injured feet or legs, and on open sores.

Culturally:

- It is one of the few non-legumes to sprout nitrogen-fixing nodules on its roots. These nodules were used to make a red dye.

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pricklypear

Opuntia species, including *O. compressa, O. fragilis, O. humifisa, O. macrorhiza, O. polyacantha* and *O. tortisipna*.

Other common names; plains prickly-pear, brittle cactus, hairspine cactus and Indian fig.

Medicinally:

A heated poultice of pads was applied to breasts to promote milk production. The fleshy pads(tuna) were used to bind wounds and on bruises.

Culturally:

The spines were used to lance boils and as sewing needles. The tunas were used as a red dye for corn mush and as red paint. To fix color on hides a freshly peeled stem (tuna) would be rubbed over the paint.

Food:

- The pads and fruits are used as food. The fruits may be eaten raw, stewed or made into jellies. The spines on the pads (tuna) are burned or scraped off, the outer skin peeled back, the inner meat sliced into strips and eaten as greens in the summer. The dried, ground tunas may be mixed in equal proportions with corn meal and made into a mush for winter food. Seeds are cooked, crushed and used to thicken soups. By boiling the fruit and draining the water, a syrup is made. The pears can be fermented and used as a beverage.

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large Indian breadroot

Pediomelum esculentum (Pursh) Rydb.

Synonym: *Psolera esculeuta* Pursh.

Other common names; Indian breadroot, breadroot, prairie turnip, prairie potato, prairie apple, wild turnip, pomme blanche, pommede prairie, tipsin, tipsinna.

Photo courtesy of: Bonnie Heidel, DOI, USGS. *Prairie Wildflowers and Grasses of North Dakota*. Northern Prairie Wildlife Research Center.

Medicinally:

- The roots and leaves have a mild, stimulating, bitter taste. A tea was used to treat sore throats, chest problems and gastroenteritis.
- A chewed root was applied to fractures, sprains and earaches.
- It was often used to treat equine ailments.

Food:

•This plant was an important food. The root forms an enlargement, or turnip, several inches below the soil surface. It is about the size of an egg. The Indians dug the roots up in June or July. The harvest had to occur after the vegetative tops dried down but before they could be blown loose. Digging beneath the hard prairie soil without a shovel was not easy. The roots were peeled and eaten raw or were cooked by boiling or roasting. Dried roots, a winter food supply, were often pounded into a starchy meal. The Lewis and Clark expedition documented buying 'breadroot' frequently on the journey to the Pacific coast. Settlers traveling west with wagon trains would often barter for this plant with the tribes. Although this was a common plant on the prairie and easily identifiable the homesteaders did not know what it looked like and would drive right over it.

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garden lovage

Levisticum officinale W.D.J. Koch

Synonyms: *Levisticum paludapifolium*, *Hipposelinum levisticum*.

Other common names; lovage, love parsley, sea parsley, smallage, maggi plant.

Photo courtesy of:
Ontario, Canada
government.

Food:

•Due to its hardiness and strong celery taste it has become a popular plant in many gardens. It is used as a spicy vegetable in salads, salad dressings, soups, sauces, candies, syrups and liqueurs.

Culturally:

•Lovage is native to Afghanistan. It came to America with the earliest European settlers and soon became naturalized. History records Greeks and Romans using it extensively. They placed leaves in sandals to alleviate bad odors.

Medicinally:

• Best known for its ability to help digestion and relieve flatulence. The tea has been used to treat coughs, sore throats, colds, sinus problems, jaundice, malaria, reduce water retention, alleviate kidney stones, as a diuretic and to stimulate menstruation. It is also used in baths to relieve skin and eye irritations.

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catnip

Nepeta cataria L.

Other common names; catmint, catwort, nip, field balm.

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Food:

- European settlers introduced catnip into North America. Catnip has been used in Europe for centuries. Leaves are used in food for flavoring sauces, soups and stews.

Medicinally:

•European settlers made tea from the leaves and used it as a general tonic and remedy for numerous ailments. These included stomach disorders, fever, infant colic, respiratory problems, hives, nervous disorders and increasing menstrual flow. Leaves were made into a poultice to reduce swellings. Indians made teas or soups of catnip and drank it for all the reasons the settlers did as well as use as a stimulant, control muscular spasms, and a dewormer. A catnip syrup was mixed with honey and used as a cough and cold medicine. A leaf poultice was placed on boils.

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American lotus

Nelumbo lutea Willd.

Synonyms: *Nelumbo pentapetala*, *Nelumbium luteum*.

Other common names; lotus, yellow lotus, water chinquapin.

Food:

•Lotus was an important food source for many tribes. The tubers and seeds were eaten in many ways. Often freshly harvested tubers were peeled, boiled and eaten. The tubers are about the size and shape of a small banana. To store them for winter the tubers were peeled, cut into inch long pieces, placed on a string and dried in the sun. The hard, nut-like seeds were pried from the large flower shell and cracked open. The seeds can be eaten raw, but were usually mixed in with vegetables, maize or meat stews. They were also roasted and made into a sweet meal.

Culturally:

•The floating flower was considered to have magical powers. If a Ponca brave wanted to make a woman fall in love with him then he would rub some of the root on the palm of his hands. He would then trick the girl into shaking hands with him. If she did then within a week she would decide to marry him.

•If anything was boiled with the root it would be dyed red. This dye was also used as a decorative skin stain.

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broadleaf arrowhead

Sagittaria latifolia Willd.

Synonyms: *S. chinensis*, *S. engelmanniana*, *S. esculenta*, *S. longirostra*, *S. obtusa*, *S. ornithorhyncha*, *S. planipes*, *S. pubescens*, *S. variabilis*, *S. viscosa*

Other common names; arrowhead, common arrowhead, Indian potato, tule potato, duck potato, muskrat potato, wapato.

Food:

•This plant was an important food source for many tribes. It was collected in shallow water from a canoe, or people waded into the water and loosened the roots from the mud with their toes. The roots would rise to the surface and they were tossed into floating baskets.

•These tubers were cooked and eaten in a variety of ways, much like we do potatoes. They were baked, boiled, broiled, peeled, roasted, eaten whole, mashed or sliced and put on strings to dry in the sun for winter food.

Medicinally:

•A tea was made from this plant and given to feverish babies, and adults for constipation, indigestion, headaches and rheumatism. A poultice of smashed corms was applied to sores, open wounds and the face for acne.

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Jack in the pulpit

Arisaema triphyllum (L.) Schott

Synonyms: *A. artrorubens*, *A. stewardsonii* *A. triphyllum*, *Arum atrorubens*.
Other common names: Indian turnip, Indian onion, wild turnip, marsh turnip, swamp turnip, meadow turnip, pepper turnip, wild pepper, bog onion, arum, American arum, three-leaved arum, wake robin, American wake robin, dragon turnip, dragon root, brown dragon, devil's ear, memory root, priest's-pintle, lords-and-ladies, starch plant, starchwort, aronknolle.

FOOD:

- This plant is poisonous. It contains calcium oxylate raphide crystals. If eaten raw victims say it feels like needles being stuck into their lips, tongue, mouth and throat. It can only be used for food after it has been boiled and thoroughly dried, preferably dried for a few months. Inflammation, edema and excessive salivation are all secondary symptoms.
- The corm (root) is shaped like a turnip. After boiling for an extended period of time the corms were often sliced very thin and dried for a few months. They were then eaten like potato chips, crumbled into cereals or ground into a flour for making biscuits, breads and cakes.

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Jack in the pulpit

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MEDICINAL:

- The Cherokees made a poultice from this plant and used it to treat headaches, snake bites, various skin diseases and open sores. Made into an ointment it was used as a liniment for joint aches and muscle pains. It was also applied to treat for ringworm, tetterworm, open sores and boils. Made into a tea it was drunk to act as a stimulant, expectorant, diaphoretic, carminative and to stop colds and coughs.
- The Chipewas made a poultice to relieve sore eyes.
- Some northern U.S. tribes used the plant to induce temporary sterility. A mixture of dried, pulverized milkweed and 3 of these plant rhizomes were boiled in a pint of water for 20 minutes and then drunk.

CULTURALLY:

- The bright red berries were boiled and the liquid used as a clothing dye.
- The Pawnees would put the seeds into empty gourd shells and make rattles.
- Colonialists used starch from the roots as a stiffener for clothes. This starch is very caustic and caused blisters and swellings.

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mayapple

Podophyllum peltatum L.

Synonyms: *Anapodophyllum peltatum*, *Podophyllum callicarpum*, *P. montanum*, *P. pubescens*.

Other common names: American mandrake, mandrake, wild mandrake, wild lemon, ground lemon, hog apple, devil's apple, Indian apple, raccoon berry, duck's foot, umbrella plant, umbrella leaf, vegetable calomel, American podofili, pomme de mai, podophylle pelte.

FOOD:

- Only the ripe fruit berry should be used as food. Unripe fruit acts as a strong laxative and all other parts of the plant are toxic. The fruit can be eaten raw, cooked or made into jams, jellies, marmalades, pies, tarts, etc. The fruit was often dried for consumption during the winter months.

CULTURALLY:

- The Cherokees soaked corn seed in the root juice prior to planting. This acted as an insecticide, fungicide and rodenticide. Settlers used a wettable powder made from boiling and grinding the leaves onto garden crops to kill insects, much like a modern insecticide.
- Due to its use in current pharmaceutical products this plant is cultivated and grown as a crop.

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mayapple

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MEDICINALLY:

- The Cherokees ate the root to get rid of intestinal worms and boiled it to eat as a purgative. They also dehydrated the root sap, rolled it up into pills and took them for constipation. Freshly squeezed root juice was dropped into the ears for earaches and to cure deafness. The root was rubbed on warts to remove them.
- Misuse of this plant has caused toxic reactions. These include salivation, stomachaches, diarrhea, vomiting, headaches, fever, excitement, coma and death. Most cases of poisoning have come from the handling of pharmaceutical extracts. Workers in the extraction process commonly develop dermatitis.
- Because it has abortifacient properties it is discouraged for use by pregnant women. It is undergoing research for many beneficial properties. Studies have shown it to inhibit the replication of measles and herpes. A derivative is currently used in the treatment of small-cell lung and testicular cancer.

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smooth Solomon's seal

Polygonatum biflorum (Walt.) Ell.

Synonyms: *Convallaria angustifolia*, *C. biflora*, *C. canaliculata*, *C. commutata C. parviflora*, *Polygonatum angustifolium*, *P. canaliculatum*, *P. commutatum*, *P. ellipticum*, *P. giganteum*, *P. hebetifolium*, *P. latifolium*, *P. multiflorum*, *P. ovatum*, *P. parviflorum*, *P. virginicum*, *Salmonia biflora*, *S. commutata*.

Other common names: Solomon's seal, small Solomon's seal, least Solomon's seal, American Solomon's seal, King Solomon's seal.

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FOOD:

- Young shoots are boiled and served like asparagus spears. The stem and leaves can be cut up and used for salads. The roots can be boiled and eaten like potatoes or added to stews and soups. The roots have a high starch content and taste bitter. To overcome this taste the root was boiled, rinsed and boiled again in fresh water. The starch could be extracted by dehydrating the solution of the first boil. This concoction was then used to help make bread or as a stiffener in soups and gravy. The roots were ground into a powder and used as a salt substitute.

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smooth Solomon's seal

CULTURALLY:

- The common name "Solomon's seal" comes from the very pronounced round scars on the root created by old healed-over root branches, which resemble ancient wax seals. The root has been burned as an incense or smudge. Some believe when this is done just before going to bed you will sleep soundly and awaken refreshed, rested and feeling younger.

MEDICINALLY:

- The fruit is poisonous. The Cherokees used this plant to treat many ailments. The leaves when brewed into a tea which was taken as a general health tonic, for dysentery, breast or lung diseases, and "profuse menstruation". A root tea was used for stomachaches. A hot poultice from beaten roots was used to draw out risings or carbuncles.
- The Chippewa would sprinkle a decoction onto hot stones is a sweat lodge to alleviate headaches.
- Colonists used it as a remedy for piles, rheumatism and skin irritations.

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early blue violet

Viola palmata L.

Synonyms: *V. affinis*, *V. angellae*, *V. atlantica*, *V. baxteri*, *V. brittoniana*, *V. chalcosperma*, *V. congener*, *V. cucullata*, *V. digitata*, *V. eamesii*, *V. edulis*, *V. emarginata*, *V. esculenta*, *V. falcata*, *V. x.festata*, *V. heterophylla*, *V. insignis*, *V. lovelliana*, *V. pectinata*, *V. pedatifida*, *V. x.porteriana*, *V. septemloba*, *V. stoneana*, *V. subsinuata*, *V. triloba*, *V. variabilis*, *V. viarum*, *V. vicinalis*.

Other common names; palmate violet.

FOOD:

- A tea was brewed from young leaves or flower buds by many tribes.
- The leaves have a gummy texture and when added to soups or stews they thicken them in much the same way okra does.

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wild bergamot

Monarda fistulosa L.

Other common names; bee-balm, horse mint, mintleaf beebalm, bergamot, Oswego-tea.

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Food:

•Used as a spicy herb seasoning in food preparation and brewed into a tea.

Medicinally:

•As a tea it was taken to treat colds, lung infections, flatulence, aching kidneys and stomachaches, induce sweat, alleviate acne problems, promote menstruation and lactation.

•As a poultice it was applied to relieve colds, fevers, headaches and sore eyes.

•It was used in sweat lodges so the steam would cure colds and lung problems.

•It was used in baby baths to keep the child healthy and smelling good.

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butterfly milkweed

Asclepias tuberosa L.

Other common names; chigger weed, pleurisy root, butterfly weed, Indian post, Canada tuber, Canada flux, orangeroot, orange milkweed, whiteroot, windroot, yellow milkweed.

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Food:

- The young shoots, stems, flower buds, immature fruits and roots were eaten raw, cooked, used to thicken soups or brewed into teas.

Culturally:

- Milkweeds supply tough fibers for making cords, ropes and for weaving a coarse cloth. Moccasins were washed in a milkweed solution for running strength. Chemicals from milkweeds make the monarch caterpillar distasteful to predators. Monarch butterflies eat only on milkweed plants. This is the only type of plant on which the eggs are laid and the larvae will feed.

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butterfly milkweed

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Medicinally:

•Pioneer doctors thought this plant was a cure for pleurisy. They used it as an alterative, expectorant, diuretic, laxative, astringent, antirheumatic, promote blood coagulation, increase perspiration, and to relieve colic, griping and flatulence.

•Indians used it as a salve for scrofulous swelling, and rashes. As a tea or soup it was taken as a diarrhea medicine, by mothers to produce milk, for snow and other forms of blindness, sore throats, bronchial and pulmonary problems, pleurisy, rheumatism, stomachaches, intestinal pains, to expel tapeworms, treat colic, as a contraceptive, and to cure snakebite. It was used as a wash on sore muscles.

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sourwood

Oxydendrum arboreum (L.) DC.

Synonyms: *Andromeda arborea*, *Lyonia arborea*.

Other common names; sorrel tree, lily-of-the-valley-tree, sour gum, elk tree.

FOOD:

- The leaves were used as a potherb in soups or stews. When eaten raw they have a pleasant acid flavor.

MEDICINALLY:

- The Cherokees brewed a tea from the leaves and drank it to treat diarrhea, dypepsy, asthma, tuberculosis, lung diseases and anxiety. They chewed the bark to treat mouth ulcers. The sap was collected and placed on itches.
- Catawba women made a tea to regulate menstruation during menopause.
- Colonists used it to treat fevers, kidney and bladder disorders.

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little sweet Betsy

Trillium cuneatum Raf.

Synonyms: *Trillum hugeri*.

Other common names; whippoorwill flower, wake-robin, rose trillium, toad trillium, toadshade, toadshade trillium, purple toadshade.

PLANT FACTS:

- The common name "sweet Betsy" is due to its spicy-scented flowers.
- Ants spread the seeds. The seeds have a material attached to them called a strophile. This strophile is very attractive to ants. After the seed matures and drops to the ground the ants take it back to their colony. After eating the strophile the seeds are discarded.
- Only after overwintering and being exposed to the cold will a seed germinate. The first year the seeds grow a small root. The second year the seedling puts out only a rudimentary leaf. The third year the first true leaf is made. The next one to two years again only one leaf is produced. Then the next one to two years a full complement of three leaves are made. Finally, in the sixth to eighth year of growth the first flower occurs. Because you cannot pick the flower without also plucking the leaves it is best to leave the plant alone. Without the leaves the plant will not be able to store enough food to grow the next year.
- The flower petals come in a variety of colors. Some include, white, pink, purple, greenish, bluish-green and maroon. The different colors are due to genetics. The exact amount and kinds of several enzymes result in the various hues.

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Virginia iris

Iris virginica L.

Other common names; blue flag, blue flag iris, wild iris, fleur-de-lis.

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Medicinally:

- Virginia iris and similar species were used to treat earaches, sore eyes, respiratory problems, liver ailments, urinary infections, swelling and pain from sore muscles or bruises. As a salve, it was placed on open sores. Pioneer medical doctors used blueflag to induce vomiting or to 'cleanse the intestines'.

Culturally:

- Today horticulturists use it for its brightly colored flowers. It is used as a source of germplasm to breed ornamental flower bulbs.

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prairie sagewort

Artemisia frigida Willd.

Other common names; fringed sagebrush, fringed sagewort, fringed sage, prairie sage, wormwood, pasture sagebrush, and woman sage.

Medicinally:

•Dried leaves were burned to disinfect the room of a contagious patient. When made into a tea or soup it was taken to treat convulsions, chest trouble, tuberculosis, hemorrhage, colds, coughs and heartburn. Women during their menses took it and a pad of the plant was worn by them to reduce skin irritation. A poultice was applied to the skin to treat open wounds and reduce the swelling. The soft leaves were used to stuff a bloody nose.

Culturally:

•Used in dance ceremonies. Burned as a smudge to control mosquitoes. Women use a decoction as a bathing rinse. It is also used as a sop for perspiration and as a deodorant.

Food:

•This plant was used as a preservative to eliminate rancid odor from meat.

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white sagebrush

Artemisia ludoviciana Nutt.

Other common names; white sage, sagewort, Louisiana sagewort, Louisiana sage, Louisiana sagebrush, prairie sage, cudweed, cudweed sagebrush, cudweed sagewort, mugwort, western mugwort, wormwood, ghost plant and man sage.

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Medicinally:

- As a tea or soup it was taken to control headaches, colds, sore throats, bronchitis, fever, smallpox, diarrhea, stomachaches, skin sores, tonsillitis, reduce phlegm and heartburn. As a wash, it was used for sore eyes and open lesions or sores. Crushed leaves were used as snuff for sinus attacks, nosebleeds and headaches. A salve was made by mixing it with bison neck tallow and applied on open sores. It was used as a head and scalp tonic to prevent graying hair. Frontiersmen drank a tea to cure Rocky Mountain spotted fever.

Culturally:

- This is the most important ceremonial plant for some tribes. Many believe it has a spiritual power, which drives away evil. It was used ceremonially before hunting. It is burned as incense and smudged on the body and burned in homes to ward off evil spirits. Bracelets and head wreaths made from it are used in the Sun Dance ceremony and in sweat lodges.

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white prairie-clover

Dalea candida Michx. ex Willd.

Synonym: *Petalostemon candidum*.

Other common names; white tassel flower, thimbleweed.

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Culturally:

- Indian women gathered the tough, elastic stems to make brooms. The Pawnee name for these plants translates as 'broomweed'.
- The roots were chewed as a pleasant tasting gum, and a tea beverage was made from the leaves.
- Interest in these clovers for landscaping, wildlife needs, aesthetics and revegetation requirements have intensified in the last few years.
- The cultivar 'Kaneb' was released by the Manhattan, Kansas NRCS Plant Materials Center due to its superior vigor and seed production.

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violet prairie clover

Dalea purpurea Vent.

Synonym: *Petalostemon purpureum*.

Other common names; purple prairie clover, red tassel flower, thimbleweed.

Medicinally:

- Violet and white prairie clovers were used in much the same way. When mixed with hot water, the pulverized root makes a strong tea, which was used as a preventative medicine or prophylactic, for cardiovascular problems, diarrhea, measles, and stomachaches.
- As a wash, it was used on open skin wounds.
- As a poultice, it was applied to wounds.
- Settlers mixed the bark of white oak and the flowers of prairie clovers to make a drink they used as a medicine for diarrhea, and to reduce fever in measles.

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blacksamson echinacea

Echinacea angustifolia DC

Other common names; purple coneflower, echinacea, Blacksamson, narrow-leaved purple coneflower, red sunflower, snakeroot, Kansas snakeroot, scurvy root, comb flower, hedge hog.

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Culturally:

- It was used for ritual feats such as immersing hands in scalding water or holding live coals in the mouth. It is used in sweat lodges. Seed heads were used as hair combs. The stalks were used for play. Children would whirl two flower stalks one around the other, the two stalks touching by the flower heads.

Medicinally:

• All parts of this plant were used by Indians for medicine. The root was widely known as a painkiller for toothaches and sore throats. Chewing the root causes the throat, tongue and jaw to be numbed, much like a shot of novocaine administered by a dentist. The plant was used as a blood purifier against gangrene, and to treat snakebite, bug and insect stings, blood poisoning, diphtheria, rheumatism, arthritis, mumps, measles, smallpox, rabies and cancer. As a wash, it was used for sore or painful necks, and on burns. The plant acts somewhat like a burn preventative and enables the body to endure extreme heat. Medicine men bathed their hands and arms in the juice, then picked out meat from boiling stew. Burns were bathed in the juice to give relief from pain. Chewing on the root stimulates saliva flow. Blacksamson was the most popular native prairie plant used as a medicine by pioneer doctors and folk practitioners. Today this plant is widely used as an herbal remedy, primarily as an immuno-stimulant. There is currently a market among herb dealers for the roots. Illegal root digging can pose a threat to this plants' population in some areas.

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longbract wild indigo

Baptisia bracteata Muhl. ex Ell.

Synonym: *Baptisia leucophaea*.

Other common names; cream-colored false indigo, yellowish false indigo, white stem wild indigo, plains wild indigo, large-bracted wild indigo and rattlepod.

Medicinally:

- Pawnee crushed the seeds and mixed them with tallow from a bison neck; this mixture was rubbed on the stomach area as a treatment for colic.
- When it was made into a tea or soup it was used as a purgative, for colds, to induce vomiting and to concentrate bile and help the liver.
- As a wash it was used as a healing lotion for cuts or bruises, sore arms and legs, stomach cramps, open cuts, eyewash and rheumatism.

Culturally:

- Indian children used the dried seedpods for rattles.

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strawberry bush

Euonuymus americana L.

Synonyms: *E. americanus*, *E. angustifolius*, *E. muricatus*, *E. obovatus*, *E. sarmentosus*, *E. sempervirens*.

Other common names; American strawberry bush, strawberry-tree, burning bush, hearts-a-bustin', bursting-hearts, spindle tree, wahoo, Indian arrowwood, American spindle tree, bitter ash, pegwood.

MEDICINALLY:

- The Cherokees brewed the bark into a tea and then would drink it as a general tonic, expectorant and to aid in breast complaints, spitting blood or prolapse. It was also massaged onto muscle cramps. To relieve sinus congestion the bark would be burned and the smoke inhaled.
- Other tribes drank the tea to treat constipation, liver ills and malaria.
- Some thought powdered bark sprinkled onto the scalp would stop dandruff.

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snow on the mountain

Euphorbia marginata Pursh.

Synonyms: *Agaloma marginata*, *Dichroplyllum marginatum*, *Lepadena marginata*.

Other common names; ghostweed, smoke-on-the-prairie, whitemargined spurge, variegated spurge.

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Medicinally:

• The Lakota Sioux used a poultice of crushed leaves as a liniment for joint swellings, and a mixture was taken by mothers to promote lactation.

Culturally:

•When broken a white latex like secretion flows from the stems. The Kiowa used this as a chewing gum.

•Some cattlemen would use the sap in place of a branding iron in marking cattle. When they found a maverick they may not have had their branding iron with them, or a fire could have been too hard to start. They would paint the brand on the calf's hide using the latex sap. This juice is so caustic it would burn through the hair and leave a scar on the animal's flesh in the shape of the brand.

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browneyed Susan

Rudbeckia triloba L.

Other common names; brown Betty, brown daisy, yellow daisy, poor-land daisy, yellow ox-eye daisy, English bull's eye, coneflower, three-lobed coneflower.

Medicinally:

- Flower petals were ground up and made into a soup or tea and used for dropsy, flux and some private diseases, as a diuretic, tonic, a soothing agent, cardiovascular problems, and given to children with worms.
- As a wash, it was used on snakebites, burns, open wounds, and swelling caused by worms.
- Tincture of the root was used for earaches.

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rattlesnakeweed

Hieracium venosum L.

Other common names; rattle.

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MEDICINALLY:

- The Cherokee made a tea by brewing the roots and then would drink it for bowel problems.

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bloodroot

Sanguinaria canadensis L.

Synonyms: *Sanguinaria australis, S. dilleniana*.

Other common names; bloodwort, tetterwort, redroot, red puccoon, puccoon-root, coonroot, white puccoon, pauson, snakebite, sweet-slumber, Indian paint.

Culturally:

•It was used as a love charm and red dye was made from the root. The dye was applied to clothing, staining wooden items and as a ceremonial face paint.

Medicinally:

•The U.S. Food and Drug Administration has classified bloodroot as an unsafe herb containing the poisonous alkaloid sanguinarine.

•As a tea it was taken to treat burns, coughs, croup, sore throats, fevers, rheumatism, stomach cramps, diarrhea and to stop vomiting.

•The root was pulverized and used as a snuff for sinus problems.

•Currently the active ingredient is in a toothpaste product called Viadent, it is used to control tooth plaque and gingivitis.

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scarlet globemallow

Sphaeralcea coccinea (Nutt.) Rydb.

Other common names; red false mallow, false mallow, common globemallow, scarlet globemallow, prairie mallow, desert mallow, flame mallow, copper mallow, cowboy's delight.

Medicinally:

- A poultice was applied to burns, scalds and sores as a cooling agent. This paste was also applied to the outer skin of hands and arms so they would be protected when put into very hot water.
- A dried root powder or a root lotion was applied to skin lesions.
- When made into a tea it is used as a beverage, and as a way to sweeten other medicines.
- It was used as a tonic to improve appetite, cure rabies, for joint swellings or pain and by pregnant women.

Culturally:

- This plant is used as a ceremonial fumigant and when drank is to thought to give a singer greater strength.

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yellowroot

Xanthorhiza simplicissima Marshall

Synonyms: *Xanthorhiza apiifolia*, *X. tinctoria*, *Zanthorrhiza apifolia*.

Other common names; southern yellowroot, shrub yellowroot.

Photo courtesy of: Michael Moody. Ecology and Evolutionary Biology Conservatory. University of Connecticut.

PLANT FACTS:

- Gets the common name yellowroot from the distinctive yellow color of the root.
- Grows in moist woods and along stream banks. Normally grows one to three feet tall. Reproduction can be from seed, but it most commonly spreads by underground rhizomes. It is found in all the Gulf Coast states.
- A yellow dye can be obtained by crushing all parts of the plant and collecting the juice.

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yellowroot

Photo courtesy of: North Carolina Wild Flower Preservation Society.
Reference web site: http://www.ncwildflower.org

MEDICINALLY:

•If taken in large doses this plant may be toxic.

•It contains the alkaloids berberine and puntarenine. These are anti-flamatory, astringent, control bleeding, antimicrobial, and can produce a temporary drop in blood pressure. These alkaloids also stimulate the secretion of bile and bilbirubich which can be helpful correcting the high tyramine levels for cirrhosis of the liver.

•Various tribes brewed a tea made from the root to treat colds, sore throats or tongues, cramps and stomachaches. A rinse was used to treat cancer and to reduce fevers.

•Historically, colonists used the root to treat ringworm, diabetes, dysentery and high blood pressure.

Christmas fern

Polystichum acrostichoides (Michx) Schott

Synonyms: *Aetopteron acrostichoides*, *Aspidium acrostichoides*, *A. Schweinitzii*, *Dryopteris acrostichoides*, *Nephrodium acrostichoides*, *Polypodium acrostichoides*, *Thelypteris acrostichoides*.

Other common name: Polystic faux-acrostic.

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CULTURALLY:

- The common name, "Christmas fern", was given because it stays green all year and the pinnae resemble small Christmas stockings.

MEDICINALLY:

- The Cherokees used the plant frequently. Brewed into a tea it was drunk to treat for toothaches, chills, fever, pneumonia and rheumatism. Topically it was applied on rheumatic joints.

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mapleleaf viburnum

Viburnum acerifolium L.

Synonyms: *Viburnum densiflorum*, *V. involucratum*.

Other common names: maple-leaved arrow-wood, arrowwood, dockmackie, dogmackie, guelder-rose, possum-haw, squash-berry.

PLANT FACTS:

- It is native to all the Gulf Coast and Eastern Seaboard states. It has long been cultivated for its attractive summer flowers and foliage. Many nurseries now carry varieties of this plant for landscaping.

MEDICINALLY:

- The Cherokees brewed a tea from the root bark and drink it as a general health tonic, to prevent recurrent muscle spasm, and to cure ague, fever and smallpox. The tea was also used as a gargle for a sore tongue.
- The Chippewa used a tea made from the inner bark to relieve stomach pains, cramps, induce vomiting and as a rinse for sore eyes.

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oakleaf hydrangea

Hydrangea quercifolia Batr.

Other common names; mountain hydrangea, French hydrangea, peegee hydrangea, hydrangea, graybeard.

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MEDICINALLY:

- The Cherokees brewed a tea from the leaves and used it to act as a purgative, induce vomiting and regulate menstrual periods. They chewed the bark for stomach troubles and to control high blood pressure. Made into a poultice they would use it as an antiseptic and place it on open cankers.

PLANT FACTS:

- This is the official state wildflower of Alabama.
- The color of its flowers depends on how much aluminum ions the plant absorbs from the soil. Thus, on acid soils the flowers tend to be blue in color, while on more neutral soils they tend to be redder, and on alkaline soils they tend to be pink.

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mountain laurel

Kalmia latifolia L.

Synonyms: *Chamaedaphne latifolia*, *Cistus chamaerhodendros*, *Kalmia ferruginea*, *K. myrtifolia*.

Other common names: Southern mountain-laurel, American-laurel, wood-laurel, small-laurel, poison-laurel, leaf-laurel, kalmia, broad-leaf kalmia, calico-bush, clamoun, ivybush, big-leaf ivy, spoonhunt, spoonwood, mountain ivy, ivy bush.

CULTURALLY:

- Peter Kalm reported in 1748, "The Swedes have named it [the spoon tree], because the Indians used to make their spoons and trowels of this wood." Freshly dug roots were used to fashion the spoons while it was green and soft. After drying and aging the wood becomes very hard and smooth.
- A yellow tan dye was obtained from the leaves.

MEDICINALLY:

- This is a very poisonous narcotic. The leaves were used by some Indian tribes to commit suicide.
- If eaten some side effects can include headache, nausea, palpitations, slow pulse, tingling of skin, vertigo, thirst, salivation, watering of eyes, running nose, abdominal cramps, difficulty in breathing, lack of coordination, convulsions, paralysis, blindness, and death.

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redosier dogwood

Cornus sericea L.

Synonyms: *C. alba*, *C. bailey*, *C. instolonea*, *C. interior*, *C. stolonifera*.

Other common names; American dogwood, western dogwood, redstem dogwood, and red willow.

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Culturally:

- The leaves and/or inner bark was smoked in tobacco mixtures in the sacred pipe ceremony.
- Bows and arrows were made from young shoots.
- Peeled twigs were used as toothbrushes for their whitening effect on teeth.
- Baskets and dreamcatchers were made from the stems. When woven with boxelder or willow branches a multi-hued design was created.
- The bark was used to make a dye. This dye was mixed with other plants or minerals to make a light red, dark red, black, khaki or yellow colored dyes.

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chokecherry

Prunus virginiana L.

Other common names; common chokecherry, red chokecherry, bird cherry, jam cherry.

CAUTION:

•This plant is listed as poisonous. People and livestock have died from eating berries, twigs and leaves. It contains two toxic chemicals, amygdalin and prunasin. The most common form of poisoning is hydrocyanic acid (prussic acid). This is created by enzymatic action on the glucoside, amygdalin.

Medicinally:

• Berry juice was taken to treat for ague, colds, coughs, sore throats, chills, fever, laryngitis and diarrhea.

• A tea was brewed from the bark or leaves and used by lactating mothers to pass medicinal qualities onto a baby. Others used the tea as a blood tonic, a purge, a choleric, a sedative, to treat heartburn, promote menstruation, rid intestinal warts and as a general pain reliever. A water mix was used as a wash on skin sores and open ulcers. It was used in the steam in sweat lodges as a cure for bile, indigestion and jaundice.

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common elderberry

Sambucus nigra L. ssp. *canadensis* (L.) R. Bolli

Synonyms: *S. bipinnata*, *S. canadensis*, *S. cerulea*, *S. coriacea*, *S. eberhardtii*, *S. intermedia*, *S. lucida*, *S. mexicana*, *S. orbiculata*, *S. oreopola*, *S. pubens*, *S. repens*, *S. simpsonii*, *S. velutina*.

Other common names; blue elderberry, Mexican elderberry, elderberry, American elder, blue elder, sweet elder, wild elder, elder, flor sauco, tree of music, Danewort, Walewort.

FOOD:

- This plant occurs in all states east of the Mississippi River and is very abundant when it grows in clumps. The berries were an important food for some tribes during late summer. Only the blue or purple berries of elderberry are edible. The red berries on plants which look nearly identical are toxic and should not be disturbed. Likewise, the introduced European black elderberry is very similar to our native elderberry but is even more poisonous. The foliage contains a glucoside which may be fatal, especially in new growth. The active alkaloids in elderberry plants are hydrocyanic acid and sambucine. Even when you get the right plant do not eat raw berries. Cooking destroys the alkaloids and improves the taste.
- The Indians used the berries to make beverages, puddings and bakery products.
- Currently it is an important source for jams, jellies, cobblers, pies and wine. It is cultivated with named varieties which produce more berries or are more colorful than native bushes.

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common elderberry

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CULTURALLY:

- Branches were used as arrow shafts.
- Twigs and berries made a purple dye which was used to decorate clothing and in basketry.
- Clapper sticks were used to accompany singing and dancing. These were made by splitting a stem into halves.
- The pith of the stem was used as tinder, and the stem was used in twirling to make friction to get the fire started.
- Stems were hollowed out by putting hot or burning twigs inside to burn up the pith. Flutes and whistles were made once the stems were hollowed out. One case has been medically documented of children being poisoned after using the hollow stems for whistles.
- The foliage was used as a repellant since the odor keeps flies and insects away.

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common elderberry

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MEDICINALLY:

- Virtually all tribes used elderberry in some manner for health reasons. A beverage made from the berries was used as a general tonic. An ounce of elderberry berries contain more vitamin C than an ounce of orange or tomato juice.
- Commonly the flowers were brewed into a tea and taken to control fevers, diarrhea and congestion. Medical research shows the flowers contain flavenoids and rutin, which are known to improve immune functions.
- A bandage was made from the leaves, and placed on any swellings or open cuts.
- A patch of bark was tied on the forehead for headache relief.

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river birch

Betula nigra L.

Synonyms: *Betula lanulosa*, *Betula rubra*.

Other common names; black birch, red birch, Japanese red birch, water birch.

PLANT FACTS:

- This is the only birch tree to grow naturally in the Gulf Coast states. It is used extensively in mined land reclamation due to its ability to grow in acid soils.

FOOD:

- In the spring when the tree sap flows extensively it is easily tapped and captured in buckets. The liquid sap adds a sweet taste to what looks like pure water. Many tribes used this drink as a beverage. Colonists used the collected sap as the liquid portion in making beer.

MEDICINALLY:

- The Cherokees chewed the leaves to alleviate dysentery.
- A tea made from boiling the bark was taken to control colds, stomachaches and difficult urination.

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bitternut hickory

Carya cordiformis (Wangenh.) K. Koch

Synonyms: *Carya amara*, *Hicoria cordiformis*, *H. minima*, *Juglans alba*, *J. amara*, *J. coarctata*, *J. cordiformis*, *J. sieboldiana*, *J. subcordiformis*.

Other common names; bitternut, swamp hickory, pignut hickory, pignut, pig hickory, white hickory, red hickory, bitter walnut, bitter pecan, bow wood.

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FOOD:

- Nuts from this species of hickory taste too bitter to be eaten on purpose. Hence the name, bitternut. The nutmeats were pulverized and brewed into a tea, which was used as a beverage.

CULTURALLY:

- The wood was used in making bows. The stripped inner bark is very tough and was used as lashing.
- Seed oil either alone, or mixed with bear fat, was used both as a hair treatment and to repel mosquitoes.
- Colonists used the seed oil as an illuminant in oil lamps.

MEDICINALLY:

- The seed oil was rubbed on aching joints for rheumatism. A tea made from the bark was used as a diuretic and laxative.
- Chippewa Indians treated convulsions by inhaling the fumes of freshly cut shoots, which were placed on hot stones in a sweat lodge.

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American beech

Fagus grandifolia Ehrh.

Synonyms: *F. americana*, *F. ferruginea*, *F. mexicana*.

Other common names; beech, beech nuts, beech tree, Carolina beech, gray beech, red beech, white beech, ridge beech.

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FOOD:

- The seeds were used by many tribes for food. They were often stored and later used in winter when plant food was scarce. The seeds are rich in oil, which contains up to 22% protein. When eaten raw they are tender, crispy, sweet and nutty.
- Only the young tender leaves were used as a potherb in soups or stews. The leaves become very fibrous and tough in a short period of time.
- The inner bark was dried, ground up into a fine powder and used as a thickening agent in soups and stews, or mixed with grain when baking bread.
- Colonists dried and ground up the seeds to use as a coffee substitute. Some people have reported gastrointestinal ailments after eating large amounts.

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American beech

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CULTURALLY:

- The Potawatomi carved mixing and serving bowls from the beech. The portion of the tree selected had a wavy grain since this indicated the hardest part and thus would resist the cutting edges of tools used to chop up foods.
- The Iroquois would use the seed oil, either by itself or mixed with bear fat, as a hair treatment or mosquito repellant.
- An edible semi-drying oil can be squeezed from the nut meats.

MEDICINALLY:

- The Cherokees chewed the nuts as a dewormer.
- Most often it was used to treat skin problems. A poultice of leaves and bark was boiled and placed on the skin as an antidote for poison ivy, burns, frostbite, rash and scalds.

white ash

Fraxinus americana L.

Synonyms: *Fraxinus biltmoreana*.

Other common names; Biltmore ash, Biltmore white ash, cane ash, smallseed white ash.

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Culturally:

•Many tribes appreciated its usefulness for making tools and implements. Today it is still widely used for tool handles, furniture and baseball bats.

Medicinally:

• A tea brewed from the leaves was used as a laxative and a general tonic for women after childbirth.

•A tea made from the bark was taken to remove bile from the intestines, as a general tonic and to promote menstruation.

•The seeds were eaten as an aphrodisiac, a diuretic, an emetic, an appetite stimulant, a styptic and as a cure for fevers.

•A water solution was poured on a person to treat itching scalp, lice, snakebite and open skin sores.

•A poultice of crushed leaves was applied on mosquito bites for relief of swelling or itching, and as a snake repellant.

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sweetgum

Liquidambar styraciflua L.

Synonyms: *Liquidambar barbata*, *L. gummifera*, *L. macrophylla*.

Other common names: American sweetgum, American storax, storax, American styrax, styrax, gum-wood, star-leaf gum, sap gum, red gum, white gum, amberboom, bilsted, satin-walnut, alligator-tree, opossum-tree, copalm balsam.

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CULTURALLY:

- The hardened gum, or rosin from the tree was used as a chewing gum. A piece of bark was torn off and in a week the sap from the wound was hardened and ready to be picked. The gum smells sweet but tastes bitter.
- 'Storax' is an aromatic resin harvested from the tree trunk. The resin is used in a wide variety of ways including incense, perfumes, soap, medicinal and as an adhesive.

MEDICINALLY:

- The Cherokees used sweetgum tea to treat diarrhea, dysentery and anxiety. Rosin was mixed with sheep or cow tallow and applied on itches, cuts, open sores, wounds, and cankers. A poultice was placed on bruises and sores to act as a "drawing plaster".
- Hardened sap was rolled up and placed in a dog's nose to treat distemper.
- Colonists believed a dozen drops of the sap taken before meals reduced fever.

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white poplar

Populus alba L.

Other common names: silver poplar, silverleaf poplar.

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CULTURALLY:

- This poplar was brought to the North American continent in 1748 from Europe. It quickly escaped and spread rapidly. It now grows in 43 of the continental United States. It spreads primarily by root suckers rather than by seed.
- A yellow dye was made from the bark.
- The Iroquois made a decoction from the branches and washed themselves with it as an anti-love remedy.

MEDICINALLY:

- The bark contains salicin, a glycoside which changes into salicylic acid (aspirin) in the digestive track. It was used primarily in treating muscle or joint aches, fevers, rheumatism, gout, debility and menstrual cramps.

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eastern cottonwood

Populus deltoides Bartr. ex Marsh.

Synonyms: *Populus angulata*.

Other common names; cottonwood, common cottonwood, plains cottonwood, river cottonwood, southern cottonwood, Texas cottonwood, Carolina poplar, plains poplar, eastern poplar and necklace poplar.

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Food:

•The inner bark and sap were used for food only during times of starvation. The bark and twigs were commonly fed to horses for winter feed.

Medicinally:

•A tea was brewed from the bark and taken to treat colds, coughs, whopping cough, tuberculosis and intestinal worms. The bark was mixed with black haw or wild plum barks and used by women for weakness and debility.

• A poultice of leaves and/or bark was stirred in water and applied on boils, bruises, bumps, open sores and sprains on both people and horses.

• The buds were mixed with bear fat and applied externally to treat for bronchitis, coughs, backaches, muscle aches, sprains, eczema, earaches and on open sores.

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white oak

Quercus alba L.

Synonym: *Quercus repanda*.

Other common names: stave oak, ridge white oak, northern white oak, eastern white oak, Quebec oak, forked-leaf white oak, fork-leaf oak, stone oak.

PLANT FACTS:

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- The white oak grows on a wide range of soils. It grows best on deep, well-drained fertile loam soils. It naturally crosses easily with other oak species and numerous hybrids have been identified. It normally grows 60 to 80 feet tall, but has been recorded as reaching more than 150 feet in height. The trunk may be up to 4 feet in diameter.
- The white oak is often planted in yards and parks for landscaping. It tolerates extremes in environments, is tolerant of many soils, lives a long time (more than 100 years), is an excellent source of shade, has a nice green color during the growing season and the leaves often turn a beautiful red color in autumn.
- This is the most important lumber tree of the white oak group. The quality of its wood makes it useful for many things, like housing construction and furniture. Pioneers used this tree to make staves for barrels, hence the common name, stave oak.
- The acorns are an important food crop for many wildlife animals. However, the tree normally does not reach fruit bearing stage until it is 30 years old. Even then only good acorn crops are normal once every 3 years.
- A large portion of the famous naval ship, the U.S.S. Constitution, better known as "Old Ironsides" is made out of white oak.
- White oak is the official state tree of Connecticut, Illinois and Maryland.

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white oak

FOOD:

- Acorns from all oak trees were used as food. They contain about 6% protein and 65% carbohydrates. However, due to their high tannin content the acorns must be treated before they are edible. Acorns with red or pink spots taste the sweetest. There were a number of ways different tribes used to leach the tannin out and get rid of the bitter taste. All of these preparations took a lot of time and work, a few took days, others took weeks and some even months.
- One way was to dry the acorns, flail the husks off and boil the pulp. This water was then thrown out or used in dyeing and tanning. The acorn meat was then boiled as many times as needed in fresh water. It is easy to tell when enough of the tannin has been leached out by simply tasting it.
- Another method was to wrap all the acorns into a porous sack and hang them in a running stream for a few weeks.
- A third common way was to bury all the acorns together in boggy ground and leave them throughout the winter.
- Settlers used roasted acorns as a tea or coffee substitute.

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southern red oak

Quercus falcata Michx.

Synonyms: *Quercus aurea*, *Q. cuneata*, *Q. digitata*, *Q. elongata*, *Q. hypophlaeos*, *Q. joorii*, *Q. nigra*, *Q. nobillis*, *Q. rubra*, *Q. triloba*.

Other common names; red oak, Spanish oak, water oak, chene rouge.

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PLANT FACTS:

- Southern red oaks are normally found on dry, sandy, or clay loam upland sites. Because it likes acid soils it is rarely found on limestone soils. It is a very common part of many mixed forests.
- It is a medium sized tree which is moderately fast growing. It normally reaches heights of 60 to 80 feet. The national champion Southern red oak has a 104 feet branch spread and is 135 feet tall in Harwood, Maryland. It normally lives to be about 100 years old.
- It is a hard, strong wood which is coarse grained and used for building construction, flooring, furniture and firewood.
- Like other oaks the acorns are a valuable mast food for numerous wildlife animals.

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chinkapin oak

Quercus muehlenbergii Engelm.

Synonyms: *Quercus acuminata*, *Q. alexanderi*, *Q. castanea*, *Q. prinoides*.

Other common names: Chinquapin oak, yellow chestnut oak, yellow oak, chestnut oak, rock chestnut oak, rock oak.

Photo courtesy of: Kansas Forest Service.

PLANT FACTS:

- Chinkapins are most commonly found on well-drained bottomland soils and limestone hills near water. They occur in all states east of the Mississippi River. It generally grows from 50 to 90 feet in height, a canopy of 20 to 40 feet in width and a diameter of 18 to 24 inches. The champion tree is 100 feet tall with a trunk diameter of 6 feet in Breckenridge County, Kentucky. The Chinkapin can live to be 600 years old.
- It naturally crosses readily with a number of other oak species. Several hybrid trees have been identified.
- Because it holds up well to strong winds it makes a good moderate size tree in windbreaks. It is very susceptible to salt and is rarely found near any oceans. It is a good ornamental tree for landscaping in very large open spaces, which have deep, uncompacted soils.
- It seldom grows large enough or in abundance to be commercially important, but it does make good firewood.

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chestnut oak

Quercus prinus L.

Synonyms: *Quercus houstoniana*, *Q. michauxii*, *Q. montana*.

Other common names; rock chestnut oak, swamp chestnut oak, rock oak, mountain oak, tanbark oak, basket oak.

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PLANT FACTS:

- Chestnut oaks are most commonly found along the Appalachian mountain range on dry, infertile soils and on rocky ridges. They make their best growth on deep well-drained soils along stream banks. They are exceptionally slow growing trees. They normally grow to 60 to 70 feet height with a trunk diameter of 3 to 4 feet. The national champion tree is 95 feet tall with a canopy spread of 82 feet in North Port, New York. Though they grow extremely slow they also live to an old age of 400 years.
- The famous Washington Oak was a chestnut oak. It grew on the east bank of the Hudson River in New York and was estimated to have been between 800 and 1,000 years old.
- The wood is the hardest wood of all the oaks. It was used for railroad ties and mine timbers. The seed cups were used as clothing buttons.
- The acorns are important to mammals but are too large for birds.

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sassafras

Sassafras albidum (Nuttall) Nees

Synonyms: *Euosmus albida*, *Laurus albida*, *L. albidus*, *L. diversifolia*, *L. sassafras*,*L. variifolia*, *Persea sassafras*, *Sassafras laurus*, *S. officinale*, *S. officinarum*, *S. sassafras*, *S. triloba*, *S. trilobium*, *S. variifolium*, *Tetranthera albida*.

Other common names: common sassafras, white sassafras, saxifrax, sassahura, mitten tree, ague tree, cinnamon wood, gumbo filé, gumbo, saloop, smelling stick, laurier des Iroquois.

PLANT FACTS:

- Sassafras grows in all states east of the Mississippi River. It belongs to the laurel family and is one of the few plants which has more than one shape of leaf. It spreads by root runners much more often than it does by seed.
- In the autumn deep blue berries called "drupes" are sought out by many birds for food.
- Near Canada it may grow no larger than a shrub. The farther south you go the longer growing season allows for it to grow much larger. It is generally 40 to 50 feet tall with a trunk diameter of 12 to 36 inches.
- Nationally, the largest sassafras tree is found in Owensboro, Kentucky. It is 78 feet tall, has a canopy of 69 feet and a trunk diameter of 262 inches. It is estimated to be over 250 years old.

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sassafras

FOOD:

- The leaves, bark and roots are all spicy and aromatic. The Indians ground up the leaves and used them as a spice, much like bay leaves are today, in soups and stews.
- Colonists used young shoots as a component in making beer (root beer?).
- In England it became a very popular drink. In London the inns would serve "saloop", a drink made of sassafras tea and warm milk.
- During the civil war because Asian tea was unattainable the leaves were dried and ground then used as a tea substitute.
- In the past the oil was used to flavor candies, chewing gum, root beer and tobacco.
- "Filé" is made from powdered leaves. It is an important part of many Cajun foods.
- Today many people still boil the roots to make sassafras tea.

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sassafras

MEDICINALLY:

•The Cherokees brewed it into a tea and drank it to treat diarrhea, colds, rheumatism, obesity, ague, to purify blood, and as a dewormer. It was also used as an eyewash. Made into a dressing it was placed on skin sores and wounds.

•Early European doctors believed the fumes from strong spices had curative powers. Whenever there was an outbreak of bubonic plague the doctors wore nose beaks of sassafras to ward off the plague.

•Colonists used the oil to repel bedbugs, lice and fleas.

•Folklore taught many people to drink the tea as a spring restorative.

•The federal Food and Drug Administration (FDA) has determined the major chemical in sassafras oil is safrole, which is carcinogenic causing liver cancer. In 1976 the FDA made it illegal to sell sassafras tea, its roots and the oil.

•Today no root beer or other product contains any oil with safrole as an ingredient.

•It takes about 250 pounds of root chips under steam pressure to get 1 quart of oil.

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sassafras

CULTURALLY:

- Sassafras has been cultivated in Europe for medicinal and flavoring uses since the Spanish brought it back from Florida in the 16th century. It has been cultivated in the United States since 1630.
- The inner bark from the roots was once an important export to Europe. In 1610 sassafras was so highly prized that the English crown made a condition of continually getting the oil from the Virginia colony before it was granted a charter.
- Historically, the lumber has been used to make rowboats, dugout canoes, crates, barrel staves, fence posts and pilings. It is still used in boat construction because the wood is light, bendable and durable.
- The oil was added to soap and to perfumes for its fragrance.
- The flowers were used as a fertilizer when planting beans.

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peachleaf willow

Salix amygdaloides Anderss.

Synonyms: *Salix nigra*, *S. gooddingii*, *S. Wrightii*.

Other common names; willow, almond willow, black willow, swamp willow, Dudley willow, Goodding willow.

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Food:

•Young willow shoots were stripped of their bark and eaten. Young leaves can be eaten for fiber. The inner bark can be eaten raw, prepared like pasta, or ground into a flour meal.

Culturally:

• Willow is associated with life and stamina. Its bark was part of a mixture with tobacco for smoking. Willows were used for making cages, animal traps, fish weirs, water jugs, baskets, drums, mats, furniture, stirrups, tipi pegs or pins, hunting and sweat lodges, meat-drying racks, travois and cradle boards. The charcoal was used to draw intricate designs on people. The twigs were bent and used to remove hair from hides.

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peachleaf willow

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Medicinally:

- Willows were used for a wide variety of ailments. Aspirin is the modern pharmaceutical equivalent of willow bark tea. In 1839 salicylic acid was isolated from willow and manufactured synthetically. About 60 years later the Bayer Company developed a derivative of salicylic acid and aspirin as we know it today was created.
- Teas were made from all portions of the willow and used to treat for joint aches, laryngitis, sore throats, stomachaches, diarrhea, eczema, hay fever, toothaches, prostatitis, satyriasis and bladder problems.
- A poultice of bark was applied to treat skin rashes, sores sores and open wounds.
- Legs and feet were soaked in a bark bath for muscle cramps.

eastern redcedar

Juniperus virginiana L.

Other common names; cedar, cedar tree, red cedar, Virginia redcedar, pencil cedar, juniper, red juniper, evergreen, savin.

Culturally:

- The tree was said to be red from the blood stains of an evil magician.
- Smoke from the leaves was used as incense in purification, ceremonies and in sweat lodges.
- Cedar was used for lance shafts, bows and other tools.
- The wood was split into planks and used to line birch bark canoes.
- Inner bark strips were peeled and split into lacings and twine. They were also used to weave baskets and floor mats.

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northern white cedar

Thuja occidentalis L.

Other common names; flat cedar, cedar, white cedar, Eastern white cedar, Atlantic red cedar, yellow cedar, featherleaf cedar, swamp cedar, arborvitae, American arborvitae, Eastern arborvitae.

Food:

•Soup was made from the inner bark of young twigs.

Medicinally:

• A tea was brewed from the branches and used to treat colds, coughs, fevers, headaches, rashes, constipation, menstruation disorders, warts, to increase perspiration and withstand pain.

•As a poultice it was applied to the skin to treat for rheumatism and cancerous warts.

•In a sweat lodge or as a smudge the smoke was used to treat colds, fevers, rheumatism, skin rashes, unconsciousness, toothaches and to fumigate of smallpox.

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northern white cedar

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Culturally:

•This cedar is listed as rare in 8 states. The name "arborvitae" is Latin for "tree of life" and was named by the 16th century French explorer, Jacques Cartier. In 1535 the Indians taught him how to use the tree's foliage, which is high in vitamin C, to treat scurvy. Cartier was so enamored with the tree he brought several back to France. The famous hedgerows in France came from these first New World trees. This was the first North American tree introduced into Europe. The trees grow slowly and have a life expectancy of four centuries.

•Split timbers were used for the ribs in birchbark canoes, and the bark was rolled up into wads and lighted for torches. Many tribes make smudges out of smoldering cedar are are used in ceremonies and to repel evil spirits. Mattresses were made of cedar boughs. It was also thought cedar beds repelled snakes.

•Cedar charcoal was mixed with bear fat and placed under the skin. This resulted in black tattoos and was suppose to help one withstand pain.

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common pricklyash

Zanthoxylum americanum P. Mill.

Synonyms: *Zanthoxylum carolinianum*, *Z. clava-herculis*, *Fagra clava-herculis*, *Xanthoxylum* spp.

Other common names; pricklyash, American prickly ash, northern prickly ash, sea ash, toothache tree, toothache bush, Hercules-club, angelica tree, wild orange, yellowwood, yellow prickly ash, prickly yellowwood, pepperwood.

Photo courtesy of: John Kasmer. Northeastern Illinois University.

MEDICINALLY:

• An odoriferous irritant sap, fluidextractum xanthoyli, can be extracted. An ointment made by mixing it with bear fat was applied to open ulcers and sores. A poultice was applied for rheumatism, hemorrhages, burns and sharp pains. A tea made by brewing the berries or bark was used to treat colds, coughs, colic, fever, tuberculosis, backaches, rheumatism, intestinal worms, cancer, childbirth pains, to cleanse wounds and to induce sweat, saliva flow and vomiting. It was commonly used to treat toothaches. The bark was ground into powder and placed around the aching tooth. Larger bark pieces were chewed to break up a diseased tooth before it was removed. The bark was also smoked to relieve dental pain.

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trumpet creeper

Campsis radicans (L.) Seem. ex Bureau.

Synonyms: *Bignonia radicans*, *Gelseminum radicans*, *Tecoma radicans*, *Tecoma speciosa*.

Other common names; trumpet vine, ash-leaved trumpet-flower, cow-itch vine.

PLANT FACTS:

- This plant is native to all Gulf Coast states. It has been cultivated since colonial times for its beauty. It spreads and covers very rapidly. It has been selectively bred so a number of named varieties now exist.

MEDICINALLY:

- The root was used as a diaphoretic and a clotting factor to help close open wounds.
- Working with the plant with bare hands has caused dermatitis with redness and swelling in some people. This prompted the common name, cow-itch vine.

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saw greenbrier

Smilax bona-nox L.

Synonyms: *S. hasta*, *S. hederifolia*, *S. renifolia*, *S. variegata*.
Other common names; greenbrier, greenbriar, fringed greenbrier, catbrier, bullbrier, Chinabrier, tramp's trouble.

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FOOD:

- The Choctaw would dry out the tuberous roots, grind them into powder and use it as a flour to bake bread.
- The young shoots were used as greens, either eaten raw or cooked.
- The fruit has a rubbery texture and were chewed much like we use chewing gum.

CULTURALLY:

- The Creek women would moisten the leaves and rub them on the face to make them look young.

MEDICINALLY:

- The Choctaw would brew a tea from the stems and drink it as a general health tonic.

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Virginia creeper

Parthenocissus quinquefolia (L.) Planch.

Synonyms: *Ampelopsis hederacea*, *A. hirsuta*, *A. latifolia*, *A. quinquefolia*, *A. radicantissima*, *A. saint-paulii*, *Cissus hederacea*, *C. hirsuta*, *C. quinquefolia*, *Parthenocissus hirsuta*, *P. inserta*, *Psedera hirsuta*, *P. quinquefolia*, *Quinaria hederacea*, *Q. hirsuta*, *Vitis hederacea*, *V. inserta*, *V. quinquefolia*.

Other common names; thicket creeper, five-leaved ivy, woodbine, woodbind.

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FOOD:

- The Chippewa would cut the stalks and roots in small pieces. The stalks would be peeled and boiled.

Culturally:

•The Kiowa made a pink dye from the fruits.

•Currently Virginia creeper is used as a ground cover to control soil erosion in shaded areas. It is native to all the states east of the Mississippi River.

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Atlantic poison oak

Toxicodendron pubescens P. Mill.

Synonyms: *Rhus acutiloba*, *R. pubescens*, *R. quercifolia*, *R. radicans*, *R. toxicarium*, *R. toxicodendron*, *Toxicodendron compactum*, *T. monticola*, *T. quercifolium*.

Other common names; eastern poison oak, poison oak.

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MEDICINALLY:

- Pioneer doctors brewed the leaves into a tea and used it in the treatment of paralysis.
- As a poultice it was applied to any area where herpes was present.

CULTURALLY:

- The leaves have a high tannin content. They were collected after they fell and used as a mixture in making a brown dye.
- When the juice, or sap, was collected it was used as an indelible marking ink.
- The sap was also used as a shoe polish or boot black.
- Western poison oak was discovered by David Douglas (1799-1834) on Vancouver Island. Douglas fir was named after him.

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eastern poison ivy

Toxicodendron radicans (L.) Kuntze spp. *radicans*

Synonyms: *Rhus blodgettii*, *R. floridana*, *R. humilis*, *R. littoralis*, *R. microcarpa*, *R. radicans*, *R. scandens*, *R. toxicodendron*, *Philostemon radicans*, *Toxicodendron blodgettii*, *T. glabrum*, *T. gonicarpum*, *T. vulgare*.

Other common names; poison ivy, vine poison ivy.

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Medicinally:

- Roots, stems, leaves and berries were all used in different concoctions by many Indian tribes to treat poison ivy rashes.
- Pioneer doctors used it in the treatment of paralysis and liver disorders.

Culturally:

- The leaves have a high tannin content. They were collected after they fell off the vine and used as a mixture in making a brown dye.
- The juice, or sap, was used as an indelible marking ink.

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eastern poison ivy

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PLANT FACTS:

- Most common allergy in the country claiming half the population.
- It is a member of the Cashew plant family which includes both cashews and pistachios.
- Everyone appears to react slightly different to remedies.
- Covered by workers compensation in some states.
- First published records of poison ivy in North America date back to 1600s.
- The common name “Poison Ivy” was coined by Captain John Smith in 1609.

muscadine

Vitis rotundifolia Michx.

Synonyms: *Muscadinia munsoniana*, *M. rotundifolia*, *Vitis amara*, *V. Angulata*, *V. campestris*, *V. cordifolia*, *V. munsoniana*, *V. muscadina*, *V. verrucosa* , *V. vulpina*.

Other common names; muscadine grape, frost grape, river-bank grape, wild grape, bull grape, bullit grape, bullace.

Photo courtesy of: Carl Hunter. USDA SCS. 1991. *Southern wetland flora: Field office guide to plant species*. South National Technical Center, Fort Worth, TX. Courtesy of USDA NRCS Wetland Science Institute. This image is not copyrighted and may be freely used for any purpose. Please credit the artist, original publication if applicable, and the USDA-NRCS PLANTS Database. The following format is suggested and will be appreciated:**Carl Hunter** @ USDA-NRCS PLANTS Database / **USDA SCS. 1991. *Southern wetland flora: Field office guide to plant species*. South National Technical Center, Fort Worth, TX.**

FOOD:

- The grapes were often eaten raw. However, because they taste too acidy in any large amount they were often used as part of a food recipe. The young leaves were brewed as a tea.
- The Cherokees mixed the grape juice with pokeberry juice, sugar and cornmeal as a beverage. They also used the grapes in making dumplings.

CULTURALLY:

- The grapes produce a gray violet dye which was used in decorating clothing and basketry. The vine itself was used in basketry by some tribes.

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summer grape

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Vitis aestivalis Michx.

Synonyms: *Vitis lincecummii*, *Virufo tomentosa*, *Virufo simpsonii*, *Virufo smalliana*.

Other common names; pigeon grape.

riverbank grape

Vitis riparia Michx.

Synonyms: *V. vulpina*, *V. cordifolia*, *V. Illex*.

Other common names; frost grape, winter grape, fox grape.

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Food:

•There are two main varieties of grapes in this part of the Great Plains. Both were used in very similar fashions. As can be supposed by the common names the summer grape ripens when the weather is still warm and the winter grape ripens towards the cool of the autumn.

•Grapes were eaten raw, the juice diluted with water to make a beverage, the fruits were made into jams and jellies. Young leaves were boiled in various meal preparations.

Culturally:

•Vines were used in basket weaving by several tribes.

Medicinally:

•Grape juice was used to treat colds, coughs, throat cancer and tumors. A poultice was made of the leaves and applied to bruises, sprains and the eyes.

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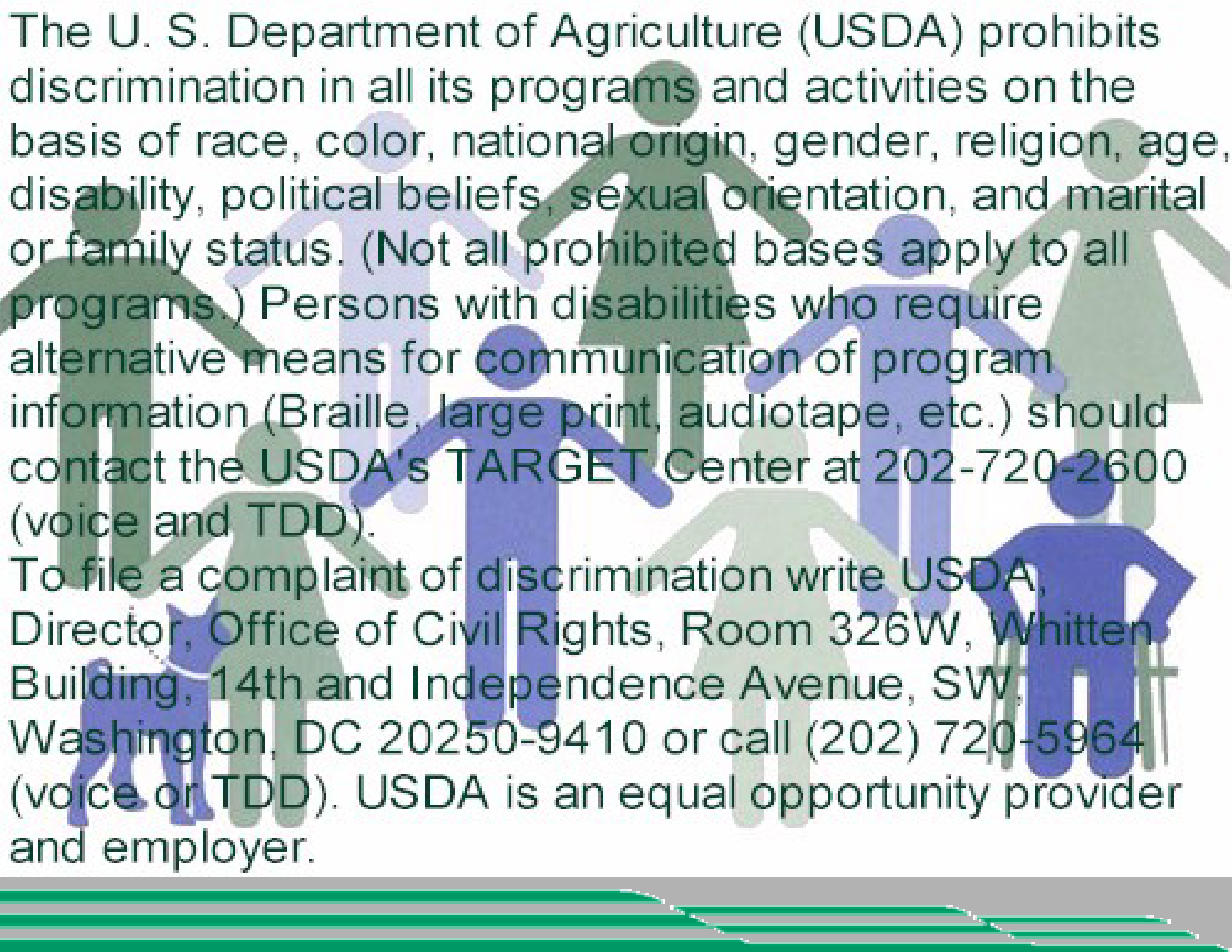

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