

Native American Spirit Lake Nation Horticulture

For countless hundreds of years Native Americans utilized plant materials for food and energy sources, medicinal purposes, cultural enhancement, and for artistic creations. When President Thomas Jefferson sent forth Merriwether Lewis and William Clark on their westward frontier expeditionary journey he carefully instructed them on the procedures to record and catalog the soil type distributions and associated flora. President Jefferson considered plants like tobacco and sassafras significant economic factors since the Napoleonic Wars were disrupting European commerce and export routes to the United States. The stimulus existed to reduce the need for European medicinal goods and to discover our own sources for these essential items. Merriwether Lewis was given instruction in medicinal practices by several professionals and his own mother so he therefore became the official Corps of Discovery doctor. William Clark adopted Native American medicinal procedures in curing the medical problems of the Lewis and Clark expedition (Library of Congress, 2003).

Native Plants Potentially Utilized by Spirit Lake Peoples as Food Sources:

Common Lambsquarter (*Chenopodium album*) The greens were cooked and eaten as salad for good health.

Wintergreen (*Pyrola asarifolia*) The fermented leaves were used for food flavoring for meats and fish.

Chokecherry (*Prunus virginiana*) The plants grow near streams, springs, and seeps in dense growth. The plants will not grow in bad drainage areas, flooded areas, or high water tables. The plants grow well in sandy or silty soils with good depth and fertility. Native Americans ground the berries with seeds intact onto a smooth rock, and then stored the ground material on tree bark to be later cooked for cold weather meals.

Juneberry (*Amelanchier* species) These plants grow well on moist soils but do best in loam soils with pH of 6.0 to 7.0. The fruits of the plant were used as a food source and prepared the same as chokecherries.

Wild Rhubarb (*Rheum rhaponticum*) The stems were boiled and used as food.

Common Milkweed (*Asclepias syriaca*) The flowers of this plant were cut up and stewed, like preserves. The stew was consumed before a feast in order to be able to eat more.

Hazelnut (*Corylus Americana*) The nuts were utilized as a food source.

Bur Oak (*Quercus macrocarpa*) The sweet acorns of this tree were collected in late autumn and buried for use in winter or used at collection time. They were prepared by three distinct methods. First they were boiled, cracked open, and consumed similar to a vegetable. Second, they were roasted in ashes. Third, they were boiled, crushed, and stirred with grease. The acorns were tasty with duck soup.

Wild Rice (*Zizania aquatica*) Wild rice grows in water six inches to three feet deep. The plant grows above the water surface. The plant is rooted in mucky sediment and the green, ribbon-like leaves are tapered. The leaves float on water surfaces in late spring and early summer. The stalks grow three to ten feet tall by July. Wild rice has a higher protein content than most common cereal grains. It is a good energy source for humans and wildlife. Growing wild rice is a very good strategy for an ecosystem. High sodium environments will not allow wild rice to flourish. Local lakes such as Horseshoe Lake with high sodium would not be a suitable location for the reintroduction of wild rice. For the Spirit Lake region, the constant flooding of the lakeshore areas may have led to the loss of the wild rice seed source. Scientific investigations have established heavy metals and acidic conditions deter wild rice growth. Also phosphorus and nitrogen sediment levels may deter wild rice. Overcrowding with other aquatic plants, wave movement from fishing boats, and increased turbidity slow wild rice growth.

The seed was harvested and dried sometimes with berries, and then stored to be later boiled and eaten like cereal. Wild rice was the chief cereal grain of some east central United States tribes.

Hawthorn or Thornapple (*Crataegus* species) The red thornapple berries were squeezed in the hands or rolled and pressed with rocks, and then placed on tree bark, dried, and stored to be later cooked in winter.

Asparagus (*Asparagus officinalis*) The plants grow in woods, hedges, and windbreaks. They were boiled and eaten as greens.

Cattail (*Typha latifolia*) The roots of this plant were used as food.

High Bush Cranberry (*Viburnum trilobum*) The plant grows in swampy wooded regions. It has bright red drooping fruit. It is a spreading shrub three to ten feet high. It was likely collected and consumed by Native Americans similar to other berries.

Wild Parsnip (*Pastinaca sativa*) The roots were used as a food source.

Wild Plum (*Prunus americana*) The fruit was used as food.

Dried Prairie Turnip or Tipsin Root (*Psoralea esculenta*) The roots of this plant were dug in early summer, then peeled, and eaten, or dried and stored for later winter use. The peeled roots were often braided by their tapered ends similar to strings of garlic.

Jerusalem artichoke (*Helianthus tuberosus*) The root tubers of this plant were eaten. Sacagawea collected Jerusalem artichoke root tubers from a rodent cache in 1805 and served them to Lewis and Clark.

Pleurotus ulmarius (Elm Cap). This was a tree fungus utilized by Native Americans and in its early stages it was a tender and tasty treat. The fungus grew on non-growing trees of the box-elder and elm species in decomposing portions of the trees.

Native Plants Utilized by Native Americans for Medicinal Purposes:

Horseradish (*Armoracia rusticana*) The roots of this perennial plant are the principal means of spreading and are the medicinal portion of the plant. The plant was used as a diuretic and as an aid to digestion and appetite. The plant was found to be a cure for rheumatism and the roots were chewed on for tongue diseases and mouth infections. The root tea was gargled for sore throats. The roots were also pounded into a lotion and applied to wort infected hands.

Tall Nettles (*Urtica procera*) Nettle tops were eaten by Native Americans to invigorate themselves following a cold winter. Boiling the roots will open the lungs. The boiled juice poured on sores will hasten the healing.

Tree Wood Ashes --- As a method of relieving cracked hands, the hands were washed in warm water, then scoured with ashes for two minutes, then rewashed with warm water. This procedure repeated will keep hands soft and pliable.

Wild Rose (*Rosa palustris*) The roots were boiled for a preparation used for dysentery. The bark and roots were prepared as tea for worms.

Common Ragweed (*Ambrosia artemisiifolia*) The crushed leaves were applied to insect stings. The leaves were used as tea for pneumonia. The leaves were also rubbed on the skin for hives. The juices from the leaves were also placed on infected feet.

Wintergreen (*Pyrola asarifolia*) The wintergreen plant is a type of shrub. The plant possesses a root stock-like stem running at the ground surface or just below. Sprigs growing three to six inches high flower and bear fruit from the low running stem. The glossy green leaves appear oval on the surface. The fruit are glassy red berries. Fresh wintergreen leaves can be fermented in water to develop the flavor. The leaves may be strained out and later used for additional tea. The tea contains methyl salicylates which are the active ingredients of aspirin. It was thought to be useful for colds, headaches, and fevers.

Wild Ginger (*Asarum canadense*) The root of plant was utilized for influenza symptoms.

Wild Dandelion (*Agoseris glauca*) The plant was utilized as a diuretic.

Wild Mint (*Mentha arvensis*) This plant was utilized as a tea for fever.

Catnip (*Nepeta cataria*) The perennial plant is silvery gray being soft and hairy. The plant grows from three to four and a half feet high. The juice from the plant can be made into an ointment. It was found to be good for colds, coughs, and breathing.

Hazelnut (*Corylus Americana*) The inner bark of this tree was soaked in water and consumed for a cure for hives and to rid the system of bile.

Rhubarb (*Rheum rhaponticum*) The stems were made into a tea for constipation. The tea was found to be a cure for dysentery.

Sage (*Salvia reflexa*) The plant was used as a tea for a laxative, for colds, for coughs, and as a cure for nervous feelings.

Mustard (*Hesperis matronalis*) The plant was found to be a cure for chest and lung ailments, for coughs, and for breathing problems. The seed is an antidote for poisoning, and for cankersores.

Wild Onion (*Allium stellatum*) The root was used as a cure for colds.

Cowslip (*Caltha palustris*) The plant was used as skin sore cure.

Big Bluestem (*Andropogon gerardi*) The plant treated indigestion and stomach pains. The lower leaves can be boiled in water to create a decoction. Small cuts were made on the head and then bathed in decoction to reduce head fevers.

Sow Thistle (*Sonchus asper*) The plant was made into tea to reduce nervousness.

Prairie False Indigo (*Baptisia leucophaea*) The seeds of the plant were ground and stirred with bison fat to place on the stomachs of babies with colic.

Wild Plum (*Prunus americana*) The plant or fruit was used as a disinfectant.

Chokecherry (*Prunus virginiana*) The juice from the fruit treated cold sores.

Prairie Clover (*Petalostemon purpureus*) The small leaves were used as medicine for heart trouble.

Black Haw (*Viburnum lentago*) Plant was utilized as a tea for smallpox. The bark of the root was a quite useful medication.

Native Plants Utilized by Spirit Lake Peoples for Cultural Purposes:

Sweetgrass (*Hierochloe odorata*) Sweetgrass grows well in sandy soil in wet shady areas. The plants grow well in temperate climates and can survive winter cold weather. The plants seldom produce seeds and the seeds are generally infertile. The plants propagate generally through the root system. The plant is useful as an incense but it can be placed in a dwelling and can improve the scent of a house without burning the grass itself. The sterile stems were braided into baskets and other craft items.

Cattails (*Typha latifolia*) Native Americans made toys for children from the stems of cattail plants. The cattail down was used by Native Americans as baby diapers. The cattail down was also used as burn dressings and insulation for moccasins. The cattail plant fibers were used for thatching lodges and weaving floor mats.

Prairie False Indigo (*Baptisia leucophaea*) The seedpods were utilized as child rattles.

Smooth Sumac (*Rhus glabra*) The stem of the plant was used to create a pipestem for smoking. A wire such as a telegraph wire was pushed down through the stem to create a hole through it.

Dogwood (*Cornus stolonifera*) The inner bark was utilized by Native Americans for smoking.

Paper Birch (*Betula papyrifera*) The tree becomes white after ten years growth. The bark peels into thin sheets. The white bark was useful for many types of craft items. This wood material was used for cooking vessels, trays, and house utensils.

Willow (*Salix species*) The willow tree material was used for fish traps and baskets.

Spartina michauxiana (Slough Grass or Prairie Cordgrass) This grass was utilized as thatching on earth lodges to stabilize and strengthen the lodge structures.