# Western Chokecherry

Native-American Folklore. Medicine & Uses in the Northern Rocky Mountains & Great Plains

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## ~ HISTORY & GEOGRAPHY ~

estern chokecherry grows in rich soils wherever the moisture is adequate. They are found at forest edge and on the sandy-rocky soil of hillsides and coulees, and along river, lake and stream banks throughout the Northern Rockies and Great Plains. They are spread

to new areas by birds or planted. There is evidence that the early Indian peoples planted them for use as food and medicine.

Chokecherries were used by early pioneers in our country as far back as 1785, when "an infusion

or tincture of the inner bark" was given, usually for stomach and intestinal discomforts and problems. [Ericksen-Brown, 1979, p. 158] In 1805, Meriwether Lewis of the Lewis and Clark Expedition, when "taken with violent pain in the intestines," boiled chokecherry twigs in water, making "a strong black concoction of astringent, bitter taste," and thus eased his pain. [Thwaites, 1905, 2:142]

The bark of the chokecherry was listed in the U. S. Pharmacopoeia from 1820 to 1970. Wild black cherry with the same properties as chokecherry was recommended as a tonic and stimulant and a cough remedy. John Lloyd said of the cherry, "No more popular bark of a native tree, excepting

sassafras, is known to home medication." [Lloyd, 1921, p. 257]

The western chokecherry is a **⊥** tall shrub, sometimes 12 to 15 feet tall. Sometimes a plant might grow to be a small sized tree, to 30 feet tall, with a trunk 5 to 8 inches in diameter. The bark on the trunk, branches, and even small twigs is dark reddishbrown. As in all cherry trees, small white openings, lenticels grow

> trunk and stems. The wood of the chokecherry



and resilient as any of the hardwoods.

The leaves are single, simple, and alternate on the

branches, egg-shaped (spatulate) to broadly elliptical, 1-2 inches to 4–5 inches long, deeply veined, with finely-toothed margins. The upper surfaces are dark-green and



Blackfeet: Pukkeep Cree: tah-kwah-i-mi-nah-nah-tik Crow: Báachuua, báchuutaale Northern Chevenne: menotse

lustrous; the under surfaces are grayish-green and dull.

Chokecherries are not the first fruit shrubs to bloom in spring. They follow many of the spring flowers, currants and gooseberries. In April to May, almost overnight, the buds in the dense elongated clusters (racemes) at the ends of branches burst into white fivepetalled blossoms and fill the air with a fragrant pungency that signals spring and blooming time for all other shrubs to follow.

Individual flowers have five separate, white creamy petals,

3/16 to 1/2 in. long, fiveunited sepals outside, enclosing the flower bud and then quickly falling off. Stamens are numerous and yellowish turning to brown.

The fruit is a berry (drupe), globe-shaped, 3/8 in. in diameter, on a short, hairless stalk, with a thin, fleshy layer

around a fairly large seed. The fruit ripens to a dark purple or black, is juicy, sweet, and slightly astringent and puckery, hence the name "chokecherry."



## ~ ECOLOGY ~

Almost every coulee in the foothills and grasslands of the northern Rocky Mountain and Great Plains regions where more snow, hence more moisture, accumulates, chokecherry bushes grow. At that elevation in the mountains just below the feet of pine, douglas fir and spruce, there is a zone of sarvis berries (Amelanchier alnifolia) and chokecherries. Sarvis berries grow higher and more in the forest shadow. Chokecherries grow where there are more sunshine and less moisture. They also grow in stands or clumps along streams and rivers.

At the dawn of spring, the bark on the chokecherry tree deepens to a red color, the leaves are reddish as they emerge, then shade toward green as they grow to full size. The times when chokecherries bud, bloom, get ripe and change color are eagerly awaited times for all people in the northern Rockies.

When in shrub-like stands, chokecherries have straight stems and trunks and reproduce easily from either seeds dropped by birds under the bushes or

carried away to sprout elsewhere. Chokecherries also grow up from roots that run underground to unfilled spaces in the soil.

Older stands or those in areas not well suited to the growth of green, healthy plants are often attacked by worms and caterpillars and a tough growth of a very black

fungus called *Plowrightia morbosa* is often seen on stems and at the joints of the bushes. Healthy bushes can withstand insects and fungi.

Because of the abundance of chokecherry bushes and the continuous production of fruit in the Rockies and Great Plains, this shrub has been much used by native peoples. Even from early times, they knew how to use it as food—in moderation and with some precautions—since the chokecherry has poisonous qualities as well as medicinal and edible values. It is potentially poisonous to all classes of livestock, especially to sheep and cattle. Hydrocyanic or prussic acid (HCN), hydrogen cyanide in water, is most concentrated in the new green leaves of spring and it is in the pits at all times. The fleshy part of the fruit is non-toxic.

Consumption of one quarter of the animal's weight (2 1/2 pounds per 1,000-pound animal) of new green leaves is fatal to cattle. They can die from eating 1/4 pound.

Signs of poisoning are uneasy movement of the animal, labored breathing (too fast or too slow), muscle weakening to staggering and falling, eye dilation, and finally bloating, convulsions and a coma to death. This process is so rapid that administration of an antidote cannot occur in time. If the animal drinks a lot of water after eating the foliage, the process is faster.

Animal poisoning is more dangerous under conditions of overgrazing on ranges where preferred plants



## WESTERN CHOKECHERRY

Prunus melanocarpa (A. Nels.) Rydb.
Prunus virginiana L.,
P. demissa (Nutt) Walp.
P. americana Marsh

Rosaceae • Rose Family

White blossoms promise black cherry wine.
My uncle made a drink

so smooth it warmed its way down your throat like quicksilver running.

But my dark brew is cherry-pit bitter and dry as an autumn leaf.



are scarce, or early in spring when other food plants are not yet grown and abundant. By the end of summer, the leaves have lost their toxicity. The farmer and rancher must be vigilant. Chokecherry bushes can be dug out and stock can be kept away from areas of heavy growth, especially in spring.

#### ~ FOLKLORE ~

o Native Americans, what the buffalo was in the f L animal kingdom, the chokecherry was in the plant world. Crow Indians used the fruit for food, used many parts of the plant for medicine, and used the tough cherry-wood boughs for tipi stakes and pins and for smokeless fires.

It is unfortunate, however, that such a useful plant can also be dangerous. As stated, the poisonous substance in the leaves is also present in the pits and if swallowed by humans, can result in death. There are antidotes, such as a quick intake of starchy foods, ordinary cough syrup, or a drink made up of freshly mixed sodium carbonate with iron sulphate. However, the poison acts so fast, it is difficult to give an antidote in time.

Cyanide is volatile, so the simple act of boiling the cherries reduces the cyanide content in the pits, rendering them harmless. People, especially children, often eat the fruits raw, hence should be very sure to spit out the pits, or wait until they are cooked and made into stew, jam, jelly or pemmican.

It is a well-known fact that because it is difficult to remove the small amount of fruit from the pit, the Indians crushed the cherries, pits and all, and used them in puddings and stews. Chokecherries ground finely with stone pestles were mixed with boiled and pound-

ed meat to make pemmican. Pemmican is a meat and berry mixture shaped into balls. While there is no known history of poisoning from using the cherry, pit and all, by the Indian people, the simple act of boiling the cherries before pounding them has proven to be a worthy precaution.

#### ~ FOOD ~

very tribe in the northern Rockies and Great Plains had many uses for chokecherries: the Blackfeet, Chippewa-Cree, Crow, Northern Cheyenne, Sioux of Montana, The Sioux of North and South Dakota, and the Arapaho and Shoshone of Wyoming.

Chokecherries may be picked when purple to

black, the darker the sweeter, and eaten raw. There is only a small amount of pulp surrounding the large pit, so sorting the edible fruit from the pit takes a clever tongue and teeth. The fresh fruit can be removed from the pits by squashing with hands and tediously removing the large pits. The harvest is so small as to be discouraging, which is probably the reason for smashing or grinding the cherry, pit and all.

#### ~ PEMMICAN ~

Fresh, raw chokecherries were dried by simply placing the fruit out in the placing the fruit out in the sun or by crushing the cherries (seeds and all), forming them into balls or patties to dry in the sun, or by drying them or crushing them and mixing them with dried, ground, or pounded meat, forming balls of patties and drying them in the sun.

Today, freezing the balls or patties or putting the cherries freshly picked into freezer bags or containers and freezing them for later use has become a method for preserving. To each gallon of cherries, add 1 cup

> of lard and 2-3 cups of sugar. Mix well and make patties 1/4 to 1/2 inches thick and 2-3 inches in diameter, or roll the same amount into balls. Place patties or balls on clean muslin, cheesecloth or canvas, spread out on a drying rack or table

> > in the sun. Turn patties or balls over daily until quite dry. Place in flour sack and hang up in wellventilated place for a few days to finish drying before storing in an air tight container. (See sidebars for other recipes.)



Dried chokecherry pemmican patties with buffalo jerky and animal fat

## ~ MEDICINE ~

ndian people used chokecherries for many ailments. **▲**Crow Indians made a strong beverage by scraping the second layer of bark of chokecherry limbs and branches and bringing it to a full boil, removing it from the fire, and letting it steep until the color was a bright cherry-red. For checking diarrhea, this strong solution is taken in place of all liquids until the desired effect has been achieved.

For cleansing sores and burns, an infusion as strong as above was used while it was warm. For an ulcerated sore, hot or warm compresses were used, or immersing the area to soak in the solution before other medication was applied. This is a very effective cleansing agent for an open wound.

The Blackfeet drank chokecherry juice for sore throats and diarrhea. They made a tea from the second or inner bark of the chokecherry and the service berry (*Amelanchier alnifolia Nutt.*), to be drunk as a purge. Blackfeet nursing mothers drank the tea to pass its medicinal qualities through their milk to their babies. They used it as an enema for their children. A soothing tea was made from chokecherry bark, mixed with roots of Western Sweet Cicely (*Osmorhiza occidentalis*, *Washingtonia occidentalis*), Northern Scouler Valerian (*Valerian scouleri*) and Indian Horehound (*Marrubium vulgare*). [McClintock, 1909, p. 277] The Sioux also drank tea [Blankenship, 1905, p. 19] from boiled chokecherry bark to ease stomach complaints, diarrhea, and dysentery. [Hart, 1976, p. 43]

Cree Indians used inner bark and roots boiled to treat diarrhea and boiled roots to prevent miscarriages. Branches were boiled to wash wounds and to drink as an emetic to cleanse the body. [Common Plants of Rocky Boyls Reservation, 1976, p. 29] The Sioux chewed the dried roots to place on wounds to stop bleeding. [Blankenship, 1905, p. 19]

In autumn, when the inner bark of the chokecherry is most medicinally active, the outer bark is stripped away and the inner, red bark is shaved off, collected, dried, and stored in an airtight container for later use for stomach ailments, diarrhea and dysentery, for cough medicines and cold remedies. When winter waned, the bark tea was a tonic to help cleanse the body and ready it for spring.

### ~ OTHER USES ~

Crow people also mixed chokecherry sap with the neck portion of animals to make a sticky substance for glueing feathers to arrow shafts. Many Indian people used the various colored clays as dyes and paints. The sap from the chokecherry was mixed with the colored clays as a mordant to fix the paint permanently for Indian designs on parfleches, shields, drums and other implements.

The wood of the chokecherry tree is very hard and very straight, hence there were many uses for it. Hard chokecherry makes good pipe stems, bows, arrows, and pins for closing the front of tepis.

Chokecherry wood is excellent firewood, producing great heat and little smoke. To have fire without

## **CHOKECHERRY RECIPES**

As soon as the chokecherries ripen in summer to autumn, they can be cookeed (boiled) in a kettle with just enough water to cover them. When the skins split, remove from heat and let cool until cherries can be handled. Then work with hands to get pulp off seeds and remove seeds if desired. Many Indians did not remove the seeds, but pounded them as fine as

possible. Today, you can grind them finely in an appliance and use the cherry, pulp and mashed seeds in sauces, stew, or pudding.

#### **CHOKECHERRY SAUCE**

Place 2–4 cups of the cherry pulp in a saucepan and cover with water. Add sugar to taste. In olden times, sweetness



was made from box elder sap or inner cottonwood bark, or gathered from a honeybee tree. Boil until mixture is cooked (7–10 minutes) and eat as a sauce with a meal, as dessert, or with fried bread. For flavor, vanilla, mint, maple flavor, or cinnamon may be added. Adding a tablespoon of fat gives the sauce a richer taste.

#### **CHOKECHERRY STEW**

Place 2–4 cups (with or without crushed pits) in a saucepan. Cover with bone-marrow stock, boil until skin breaks, if cherries are whole, or until cherries are cooked (7–10 minutes). Serve hot or cold as dessert or with fried bread. Add sweetener and fat as above if desired.

#### **CHOKECHERRY PUDDING**

Place 2–4 cups in a saucepan. Cover with water or bonemarrow stock. Sweeten to taste with honey or sugar. Mix 1 tablespoon of flour in a cup with enough water to make a thin paste. Add paste to mixture, stirring rapidly until mixture thickens to a pudding. Today many cooks use corn starch in a water paste to thicken puddings. Add sweetener and fat as above if



desired. Serve hot or cold with a meal, as dessert, or with fried bread.

#### CHOKECHERRY JAM OR JELLY

Put washed cherries into a kettle, cover with water, boil until skin on cherry splits. Cool cher-

ries and remove seeds by working mixture with hands. There is not much pulp surrounding the seeds, but an ambitious cherry picker and jam maker can get enough for 4–6 cups of pulp with skins. The pulp and water used for boiling are put into a saucepan. (For jelly, cool the mixture, then pour into a bag or cheesecloth and squeeze out the juice.) For each cup of the pulp/water mixture, add 1 cup of sugar.

Boil until the mixture drops off a spoon in clumps or sheets rather than in individual droplets. Remove from heat and pour into jelly jars while still very hot, cap and seal, or let cool, set and cover with a layer of hot melted sealing wax. Today, commercial pectins are available with excellent directions for making cherry jams or jellies. Sweeteners other than sugar can be used.

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#### CHOKECHERRY SYRUP

Use the jam mixture above, use 1 cup of sugar to 2 cups of juice or pulp, or for sweeter syrups, use 1 cup sugar to 1 cup of juice or pulp. Boil

sugar and juice until sugar dissolves. Do not boil syrup down. When well-boiled, pour hot syrup into jars and seal. Syrup may be used on pancakes, waffles, cornbread, or as topping on ice cream. Again pectin may be used, but double the juice per pectin for syrup as used in jam or jelly. This makes a thinner, more liquid syrup rather than a set jam or jelly.

#### **CHOKECHERRY BUTTER**

Chokecherry butter is prepared by cooking ripe cherries, straining out the seeds and skins, and mixing with equal amounts of plums, or apples (or crab apples) or both, and sugar to taste. Or use cherries alone, either fresh or thawed. Add 1/2 as much of melted marrow fat or lard and sugar to taste. Mix well and set in refrigerator until fat has congealed. Serve with hot biscuits, fried bread, or with dried meat.

#### **CHOKECHERRY BLOOD PUDDING**

For blood pudding, blood is used instead of water. It is collected in a kettle as an animal is bled when butchered. The blood is allowed to coagulate, then whipped to break up the congealed clots, and boiled. Meanwhile, dried cherries in 1/2 the amount as the blood are stewed in a separate kettle and then mixed with the cooked blood. Add sugar to taste. This makes a thin pudding that can be eaten with fried bread.

#### **CHOKECHERRY JUICE & TEA**

Chokecherry juice squeezed from fresh cherries or boiled in water and strained from pulp and pits may be used as a drink. Adding water to an amount of the crushed mixture in a teapot or a cup and steeping it to the color desired makes a tea that can be served hot or cold, sweetened with honey, sugar or other sweetness.

#### **CHOKECHERRY BARK TEA**

Peel the outer reddish-brown bark from chokecherry branches or stems an inch or more in diameter. Scrape off the greenish spongy second layer to be used as a medicinal tea. To a teapot or cup add an amount of shavings as desired, more for strong tea, less for weak tea. Steep as for any tea. Add sweetener to a cupful and drink as tea. A stronger tea may be had if the mixture is boiled longer.



## CHOKECHERRY WINE

- 2 gallons of chokecherries
- 2 gallons water
- 1 gallon sugar

Let set in a crock for three weeks with cloth over top. Get in with paddle or hand and work cherries up each day. When the little devils

quit bouncing on top of the mixture, syphon the liquid off into another crock. Let stand for 3 days, syphon and strain into bottles. Screw on caps and store in a cool place with bottles at a 45° angle. ■

smoke to be seen or smelled was a useful quality in early days when surrounded by enemy tribes. Chokecherry wood does not soak up water so it makes good firewood after a rain.

Creative beaders removed cherry pits which turn bright red when boiled and used them for ornamental beads.

Another important consideration is the usefulness of chokecherries as food and habitat for birds and other animals in the ecosystem. All seed eating birds

dine on the fruits
and bears are especially fond of the
cherries.

DR. ELNORA (STENERSEN)
OLD COYOTE, age 89, grew up in
Eastern Montana and married John M.
Old Coyote, a full-blooded Crow Indian.
With the help of many tribal people,
she has been researching and teaching
the use of native plants for many years.
She has studied and written about over
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