

CHOCKECHERRY

Prunus virginiana L.

Plant Symbol = PRVI

*Contributed by: USDA NRCS Manhattan, Kansas
Plant Materials Center and Kansas State University
Forestry Division*



Joseph Scianna USDA-NRCS Bridger Plant Materials Center

Alternate Names

common chokecherry, choke cherry, black chokecherry, red chokecherry, California chokecherry, Virginia chokecherry, eastern chokecherry, western chokecherry, rum chokecherry, whiskey chokecherry, wild cherry, wild blackcherry, bird cherry, jamcherry, chokeberry, cabinet cherry, chuckleyplum, sloe tree, bitter-berry, caupulin

Uses

Chokecherry is primarily used today as a food product that makes fine preserves, juice, jelly, and syrup. It is a very important commercial fruit tree. Anthropologists indicate cherries have been harvested in Eurasia from 4,000 to 5,000 B.C. In 1629, chokecherry was imported to England where it has been cultivated as an ornamental. It was first cultivated in North America as an orchard crop in 1724. Conservation uses include plantings in shelterbelts, windbreaks, wildlife plantings, and mass plantings for erosion control.

CAUTION: PARTS OF THIS PLANT CAN BE POISONOUS

The seeds are toxic due to production of hydrocyanic

acid in the leaves, stems and seeds. The almond-like nuts are treated to deactivate the poisonous glycosides before they are put on the market. Cases of illness and deaths have been traced back to eating the seeds of these trees.

In some parts of the U.S., chokecherry is a popular ornamental.

Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

Description and Adaptation

General: Rose Family (Rosaceae). Chokecherry is a native, perennial, deciduous, woody, thicket-forming large erect shrub or small tree. It rarely reaches a height of over 30 feet. The crown is irregular and from 10 to 20 feet wide when mature. The stems are numerous and slender. Reproduction can either be by seed or root rhizomes.

Leaves are dark green and glossy above and paler beneath. They are alternate, simple, glabrous, oval to broadly elliptic in shape, 1 to 4 inches long, and 3/4 to 2 inches wide. The margins are toothed with closely-spaced sharp teeth pointing outward forming a serrated edge. They turn yellow in autumn.

The bark of young trees may vary from gray to a reddish brown. As it ages the bark turns darker, into brownish-black and becomes noticeably furrowed. The bark is distinctly marked by horizontal rows of raised air pores (lenticels). With maturation the lenticels develop into shallow grooves.

It has perfect flowers which are aromatic and arranged in cylindrical racemes 3 to 6 inches long. The racemes always grow on the current year's leafy twig growth. Individual flowers are perfect, 1/4 to 3/8 inch in diameter with 5 white petals. The flowers start appearing before the leaves are fully developed. Flowers may appear from April to July and fruits form a couple of months later.

The fruits are spherical drupes (fleshy fruit with a stone in the center), globose, 1/4 to 3/8 inch in diameter. Small ripe cherries range in color from dark red or purple to almost black. There are from 3,000 to 5,000 seeds per pound.

The roots are a network of rhizomes. Deep root systems grow at irregular intervals along the length of the rhizomes. Rhizomes can extend beyond the drip zone, up to 35 feet away from the base of the tree. Rhizomes grow up to 3/4 inch in diameter.

There are three recognized varieties of *Prunus virginiana*. The variety *demissa* is commonly called western chokecherry. It produces dark red fruit. The variety *melanocarpa* produces black fruit. The variety *virginiana* produces crimson to deep red fruit. This variety can be found in two forms, one with red and one with white fruit.

Chokecherry occurs naturally in a wide range of soil types and textures.

Many wildlife animals eat the fruit and distribute it. Birds, rabbits, hares, rodents and bears all seek out and eat its fruit.

Distribution: Please consult the Plant Profile page for this species on the PLANTS Web site.

Establishment

Nursery grown seedlings establish satisfactorily if planted free of competition in areas having 15 or more inches of annual precipitation. Use of weed barrier mat, a strict cultivation regime, or proper herbicide treatment is necessary if a successful planting is to occur. Check with your local NRCS Field Office to determine if chokecherry is adapted to your area or soils before planting any trees.

Management

On range and pastures it is often considered a potential hazard to livestock. As a consequence either mechanical and/or herbicide treatments combined with good grassland management is needed to prevent animal loss. Control of weedy vegetation, and treatment for potential diseases, is necessary if it is expected to grow for an extended period of years

Pests and Potential Problems

Chokecherry is susceptible to X-disease, black knot, stem decay, shothole, Valsa canker, and honey fungus *Plowrightia stansburiana*. Common insect pests are the prairie tent caterpillar, eastern tent caterpillar and aphids. In the northeastern United States, chokecherry is a primary host of the eastern tent caterpillar. Browsing by deer on young immature trees causes considerable damage in some areas.

Environmental Concerns

The leaves, bark, stem, and stone (seed pit) of chokecherry are all toxic. It is potentially poisonous to all classes of livestock, but cattle and sheep are the ones commonly affected. The meaty flesh of the fruit is not toxic. Poisoning generally occurs when animals consume 0.25 percent or more of their body weight in toxic plant material in an hour or less.



Tim Dring, USDA NRCS Washington State Office

Eating a single seed or cherry pit, though not recommended it is unlikely to cause discomfort or serious illness. However, there have been reported deaths, usually of children chewing on the stems and leaves, or swallowing the stones.

Cultivars, Improved, and Selected Materials (and area of origin)

Planting materials can be obtained from most commercial hardwood nurseries and seed sources. Several cultivars have been released by government agencies and private nurseries for use in landscaping and/or fruit production. The two most commonly marketed cultivars are 'Schubert', and 'Canada Red'.

'Schubert' is one of the oldest cultivars. Its parent rootstock is *Prunus virginiana melanocarpa* selected from a native stand near Valley City, North Dakota. Releases from Canada include, 'Garrington', 'Goertz' and 'Robert'.

Weediness

This plant may become weedy or invasive in some regions or habitats and may displace desirable vegetation if not properly managed. Please consult with your local NRCS Field Office, Cooperative Extension Service office, state natural resource, or state agriculture department regarding its status and use. Weed information is also available from the PLANTS Web site at plants.usda.gov. Please consult the Related Web Sites on the Plant Profile for this species for further information.

202-720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.

[Read about Civil Rights at the Natural Resources Conservation Service.](#)

Control:

Please contact your local agricultural extension specialist or county weed specialist to learn what works best in your area and how to use it safely. Always read label and safety instructions for each control method. Trade names and control measures appear in this document only to provide specific information. USDA NRCS does not guarantee or warranty the products and control methods named, and other products may be equally effective.

Prepared By:

Wayne A. Geyer, Forestry Division, Kansas State Research and Extension, Kansas State University, Manhattan, Kansas

Patrick J. Broyles, Formerly USDA NRCS
Manhattan Plant Materials Center, Manhattan, KS

John M. Row, USDA NRCS Manhattan Plant
Materials Center, Manhattan, KS

Species Coordinator:

Patrick J. Broyles, Formerly USDA NRCS
Manhattan Plant Materials Center, Manhattan, KS

Edited: 080724.jsp

For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS Web site <<http://plants.usda.gov/>> or the Plant Materials Program Web site <<http://Plant-Materials.nrcs.usda.gov/>>

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's [TARGET Center](#) at 202-720-2600 (voice and TDD).

To file a complaint of discrimination write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call