



Noxious/Invasive Species

Wild Cherries

(Poisonous Plant)

Illinois

Plants of wooded and old woodland pastures



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- Description** Chokecherry, *Prunus virginiana* L.: Chokecherry is a small tree or shrub with oblong to obovate leaves. The leaves are sharply toothed, and the teeth are slender and ascending. The flowers are produced in long, many-flowered clusters. The fruit is scarcely edible.
- Occurrence** Chokecherry grows in a wide variety of habitats from Newfoundland to Manitoba, south to Virginia, Kentucky, Arkansas, and possibly farther south.
- Description** Pin Cherry, *Prunus pensylvanica* L. f.: Pin cherry is a shrub or small tree with lanceolate leaves and flowers disposed in few-flowered clusters. It grows in dry or moist woods and in recent burns and openings.
- Occurrence** Pin cherry ranges from Newfoundland to eastern British Columbia, south to New Jersey, western Virginia, northern Indiana, northern Illinois, South Dakota, and Colorado.
- Description** Wild Black Cherry, *Prunus serotina* Ehrh.: Wild black cherry is a medium-sized tree that grows up to 60 feet in height. Its furrowed bark forms persistent, recurved scales on the trunk. The almost horizontal branches are smooth and red-brown. The alternately arranged, oblong leaves, 2 to 6 inches long, are abruptly pointed at the apices, wedge-shaped or acute at the bases, and finely toothed on the margins. The midvein beneath is usually clothed with a rusty pubescence. The white flowers appear with the leaves, and are borne in many-flowered clusters from 4 to 6 inches long. The fruits are globular, purplish-black or black edible cherries that ripen from July to September.
- Occurrence** Wild black cherry ranges from Nova Scotia to North Dakota, south to Florida and Texas. It is common in fencerows, along roadsides, and in thickets and open woods. Birds greedily devour the fruit, and are largely responsible for the spread of the tree.
- Conditions of Poisoning** Animals often eat wild-cherry leaves directly from the tree, from branches that have been cut or broken from the tree, or in dried hay. The leaves are poisonous under all these conditions.
- Control** Keep animals from grazing where they can browse wild-cherry leaves.

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Toxic Principles Wild cherries, like bitter almond, contain a cyanogenetic material, the glucoside amygdalin. Amygdalin itself is not especially poisonous, but it is broken down by hydrolysis into the toxic hydrocyanic or prussic acid. The acid is formed quickly from bruised cherry leaves. This phenomenon can be observed by crushing several leaves in the hand and then smelling the strong cyanide odor. Johnsongrass, sudangrass, and sorghum may also be sources of prussic acid.

Clinical Signs The animal is apprehensive, its respirations are rapid and soon become labored, and it attempts to breathe through its mouth. Muscle weakness and spasms, staggering, convulsions, and coma are usually observed within 10 to 20 minutes after the onset of signs. Respirations become shallow and then cease, although the heart may continue to beat for several minutes after breathing stops. Death results from internal asphyxiation that affects all systems of the body, especially the respiratory centers.

Necropsy In acute poisoning, the venous blood is usually dark red, although it may be bright red. There is often great reduction in cardiac output, but the peripheral tissues continue to utilize some oxygen. The blood becomes dark red from accumulated carbon dioxide and clots slowly.

Lesions are congestion of the liver and distension of the venous system, and congestion and hemorrhage in the trachea and lungs and on serous membrane surfaces. The rumen may be distended with gas. The odor of bitter almonds may be detected on the newly opened cadaver. If the dose is low and death is delayed, there will be inflammation in the stomach and small intestine. Large doses of hydrocyanic acid prolong preservation of the carcass.

Treatment Any animal suspected of being poisoned by wild cherries should be treated immediately by a veterinarian, since death may occur within a few minutes or a few hours. Treatment for prussic-acid poisoning is directed toward an immediate relief of the toxic effects. Intravenous or intraperitoneal injection of a solution containing sodium thiosulfate and sodium nitrite brings prompt relief. Commercial solutions are available containing these two drugs as well as methylene blue. Methylene blue stabilizes the other two drugs in solution.

An intravenous injection of a solution of methylene blue alone is also effective. Success depends upon prompt treatment and the amount of prussic acid freed in the body. Giving corn syrup by mouth may reduce the rate at which the prussic acid is released. The same treatment is used for prussic-acid poisoning caused by Johnsongrass, sudangrass, and sorghum.

References Evers, Robert A., and Roger P. Link. Poisonous Plants of the Midwest and Their Effects on Livestock, 1972. Special Publication 24, College of Agriculture, University of Illinois at Urbana-Champaign.

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