

Poison Hemlock (*Conium maculatum*)



Poison-hemlock grows throughout the United States. It is very toxic and sheep, cattle, swine, horses, and other domestic animals are poisoned by eating small amounts of green or dried plant. It is also extremely poisonous to humans. Poison-hemlock is sometimes confused with western water hemlock, a more deadly species, because the names are similar. Poison-hemlock is commonly called deadly hemlock, poison parsley, spotted hemlock, European hemlock, and California or Nebraska fern.

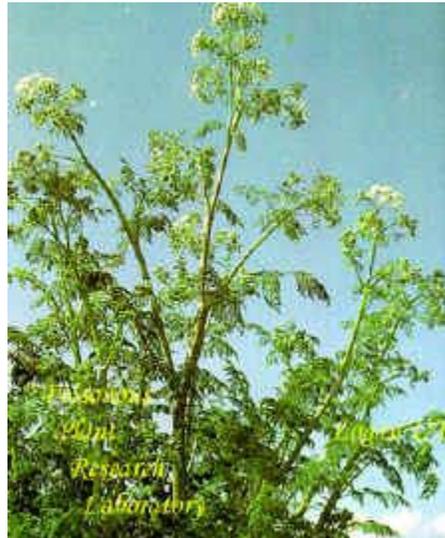
Poison-hemlock has white flowers that grow in small erect clusters. Each flower develops into a green, deeply ridged fruit that contains several seed. After maturity, the fruit turns grayish brown. Poison-hemlock starts growing in the early spring.

It usually grows for 2 years, but in favorable locations it may be a perennial. Roots of poison-hemlock may easily be mistaken for wild parsnips. Poison-hemlock grows along fence lines, in irrigation ditches, and in other moist, waste places. It may be 2 to 3 meters tall. The hollow stem usually is marked with small purple spots. Leaves are delicate, like parsley, and it has a white taproot. Poison-hemlock is a biennial in the parsnip or wild carrot family.

All parts of poison-hemlock (leaves, stem, fruit, and root) are poisonous. Leaves are especially poisonous in the spring, up to the time the plant flowers. Fresh leaves are unpalatable, so livestock seldom eat hemlock when other feed is available. The toxic compounds are coniine, g-coniceine, and related piperidine alkaloids. People may be poisoned by eating any part of a hemlock plant. Often, poisoning occurs after the victim confuses hemlock root with wild parsnips, hemlock leaves with parsley, or hemlock seed with anise. Whistles made from hollow stems of poison-hemlock have caused death in children.

Where and When It Grows

Because of its attractive flowers, poison-hemlock was brought to the United States from Europe as a garden plant. It is moving onto rangelands. Poison-hemlock is found at roadsides, on edges of cultivated fields, along creekbeds and irrigation ditches, and in waste areas.



How It Affects Livestock

Poison-hemlock ingestion frequently is fatal. Sheep may be poisoned by eating as little as 100 to 500 gm of green leaves. Cattle that eat 300 to 500 gm may be poisoned. Signs usually appear within an hour after an animal eats the plant. Animals die from respiratory paralysis in 2 to 3 hours. Convulsions, which are common in western water hemlock poisoning, seldom occur with poison-hemlock.

Skeletal deformities or cleft palate may be induced in offspring of cows, sheep, goats, and pigs that eat poison-hemlock during gestation. Susceptible stages of gestation when animals should not be exposed to this plant include 40 to 70 days in cows and 30 to 60 days in sheep, goats, and pigs. Palate and skeletal deformities in calves are indistinguishable from the lupine-induced crooked calf disease.

Signs and Lesions of Poisoning

- Nervous trembling
- Stimulation followed by depression Ataxia, especially lower and hind limbs
- Salivation
- Lack of coordination
- Dilation of the pupils
- Rapid, weak pulse
- Respiratory paralysis
- Coma
- Death
- Convulsions have been reported
- Occasionally bloody feces and gastrointestinal irritation
- Skeletal birth defects occur in calves when cows eat poison-hemlock between 40 and 70 days gestation

How to Reduce Losses

Avoid stressing animals that are not recumbent. For recumbent animals, support respiration and treat with activated charcoal and a saline cathartic. Gastric lavage may be beneficial with atropine therapy to control parasympathetic signs. Animals that recover seldom show aftereffects, although pregnant animals may give birth to deformed offspring.

Poison-hemlock may be controlled by treating plants before they begin to bud with 2,4-D plus dicamba (1 kg + 0.5 kg ai/Ac). Repeat applications may be needed. Follow all precautions for handling herbicides.

Source: <https://www.ars.usda.gov/pacific-west-area/logan-ut/poisonous-plant-research/docs/poison-hemlock-conium-maculatum/>