



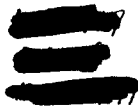
Purple Locoweed  
(*Oxytropis lambertii*)

# PLANTS WHICH MAY BE POISONOUS

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Professor Emeritus  
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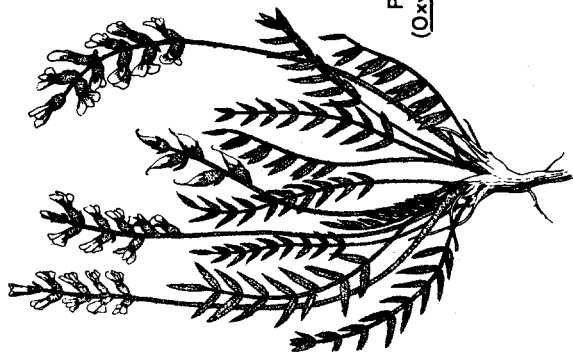
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## PLANTS WHICH MAY BE POISONOUS

Many animals die each summer and poisonous plants may be suspected. Often, the cause of death is difficult to determine from examination of either the feed or the animal's body. The condition of the pasture may be some clue.

Overgrazing tends to increase undesirable plants which may be eaten when there is lack of better feed. Moving the animals to good pasture usually is the best remedy.

Lightning, blackleg, anthrax, acute bloat, nitrite poisoning, weeds changed by chemical sprays, chemicals used for killing insects, weeds and rodents, chemical residues left in containers and lead paint on wood fences are all possible causes of livestock poisoning.

A few plants contain highly poisonous substances. Others are injurious only if consumed in large quantities, or if eaten over an extended time. In any case the hazards are greatly increased if the animals are in poor condition or if forage is lacking in either quantity or quality.

Poisonous plants are not numerous, nor of great importance, but they are one of the hazards to livestock. Somewhat like fires and accidents, losses do not strike often but when they do the results may be serious. Sickness, even death, of animals may be caused by an excessive amount of fresh green grass, corn or other feed that would not be injurious in moderate amounts.

Few plants are likely to cause human poisoning. Some poisonous mushrooms may cause irritation. North Dakota has no deadly, poisonous berries but in quantity, or under unusual circumstances, some may cause trouble.

### PLANTS POISONOUS TO HUMANS AND ANIMALS

**ALGAE** - Water blooms sometimes cause poisoning, usually during hot weather in late summer.

**ANGEL'S TRUMPET (*Datura meteloides*)** - Seeds of this garden ornamental are very poisonous.



Arrowgrass  
(*Triglochin maritima*)

**ARROWGRASS (*Triglochin maritima*)** -- A grasslike plant found in saline marshy places. It produces prussic acid and may cause death quickly if eaten in quantity. It occurs throughout North Dakota in wet, saline soils.

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**CASTORBEAN (*Ricinus zanzibarensis*)** - The seeds are poisonous but usually do not mature in North Dakota. The oil is not poisonous.

**CHOKECHERRY (*Prunus virginiana*)** - The leaves may yield prussic acid when eaten.

**COCKLEBUR (*Xanthium italicum*)** - Seedlings (usually in May) are poisonous to hogs and cattle. It often grows around barnyards and along stream banks.

**CORN (*Zea mays*)** - A large feeding of fresh green corn will cause death. See also scab.

**DEATHCAMAS (*Zigadenus gramineus*)** - This lily-like plant in low prairie has caused livestock poisoning on western ranges in early summer.

**FLAX (*Linum usitatissimum*)** - Green flax in the fall and chaff from threshing may yield prussic acid when eaten.

**HALOGETON (*Halogeton glomeratus*)** - This relative of Russian thistle is not yet (1969) found in North Dakota but may appear. It is to be expected along roadsides or on bare, poor soil. It grows only where little else grows. It poisonous principle is an excess of oxalic acid. It kills sheep quickly if eaten in quantity.

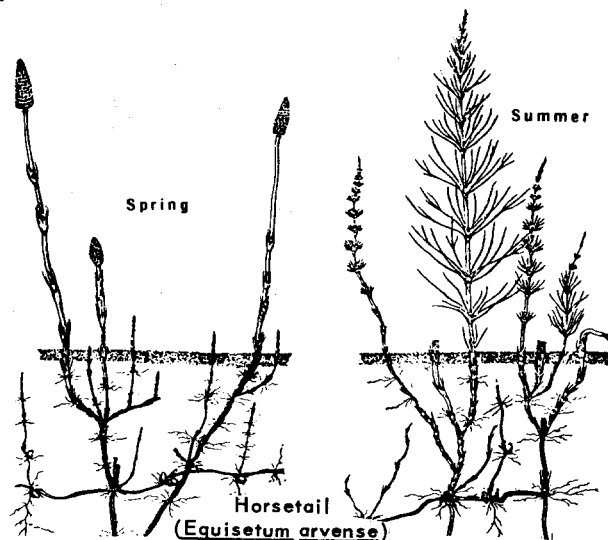
**POISON HEMLOCK (*Conium maculatum*)** - This tall, parsnip-like plant introduced from Europe has been found in one locality in North Dakota. It is very poisonous but no cases have been traced to it.

Water Hemlock  
(*Cicuta maculata*)



**WATER HEMLOCK (*Cicuta maculata*)** - A native plant 3 to 6 feet high with large divided leaves, frequently found in low meadows or wet places. It is very poisonous, especially the thick roots which smell something like parsnips. It is believed not to be harmful in hay.

**HENBANE (*Hyoscyamus niger*)** - A coarse, broad-leaved, introduced weed found around towns; also river valleys in the west. Flowers, seeds and roots are very poisonous; not likely to be eaten except seeds or roots by small children.



**HORSETAIL (*Equisetum arvense*)** - Leafless, jointed stemmed plants, common in moist ground. Reported injurious but not known to have caused trouble in North Dakota.

**LARKSPUR (*Delphinium bicolor*)** - This small blue flowered species occurs on prairie in extreme western North Dakota. It might cause livestock poisoning in spring.

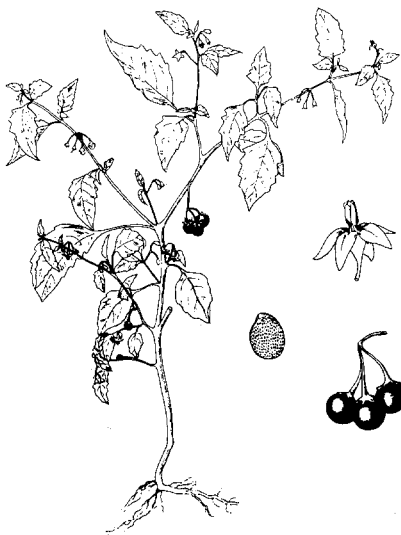
**LOCOWEED (*Oxytropis lambertii*)** - A common species, especially westward, on prairie. It acts slowly and is not known to be troublesome in North Dakota.

**LUPINE (*Lupinus argenteus*)** - This species is found only in southwestern North Dakota. Pods and seeds are poisonous to sheep.

**MILKVETCH (*Astragalus* sp.)** - Many species are found in North Dakota. Most are harmless but one purple (*Astragalus bisulcatus*) and two yellow flowered (*A. pectinatus* and *A. racemosus*) ones are selenium converters. These are coarse and not usually eaten. See Selenium.

**MUSHROOMS** - No poisonous species is known to occur in North Dakota but none should be eaten unless known to be safe. Some are irritating to certain persons. The deadly ones cannot be distinguished from the safe ones by any simple tests.

**NIGHTSHADE (*Solanum nigrum*)** - The common black or garden nightshade is frequently found but is not usually abundant. The ripe berries often are used in jam, pie or sauce. Green or uncooked berries should not be used. The True Deadly Nightshade (*Atropa belladonna*) does not occur in North Dakota.



Black Nightshade  
(*Solanum nigrum*)

**OLEANDER (*Nerium oleander*)** - Is sometimes, but not often, grown in North Dakota as a house plant. The leaves are poisonous to both man and livestock.

**POISON IVY (*Rhus radicans*)** - A common small shrub, especially in wooded or brushy places. Produces skin blisters to most people on contact. It is not troublesome to livestock.

**POTATOES (*Solanum tuberosum*)** - When sprouted or sunburned, potatoes are sometimes toxic.

**RAPE (*Brassica napus*)** - Frozen rape has shown indications of being poisonous to pigs.

**SUDANGRASS (*Sorghum vulgare* var. *sudanense*)** - Sometimes contains excessive prussic acid when injured by frost or drouth. A quantity of such material will kill animals in a few minutes.

**SNEEZEWEED (*Helenium autumnale*)** - Found in wet places, sometimes in quantity in potholes, especially in the northeast part of the state. It is reported poisonous to sheep.

**SWEETCLOVER (*Melilotus alba* and *M. officinalis*)** - Losses have occurred from moldy hay.

## CONTROL OF POISONOUS PLANTS

**Arrowgrass** requires 5 to 6 pounds per acre of 2,4-D low volatile ester for control. These rates of chemical will eradicate this plant from native pastures without harming the grasses.

**Chokecherry** can be killed by spraying with 2,4-D low volatile ester at 2 pounds per acre or with a mixture of 2,4-D and 2,4,5-T (brush killer). Wilting chokecherry leaves are high in prussic acid. Do not graze treated areas until the leaves on sprayed plants have dried.

**Cocklebur** seedlings are susceptible to 2,4-D and can be controlled with 3/4 pound per acre of this her-

bicide. Mature plants require increased concentrations (1 pound per acre or more) of 2,4-D for control. Spray before the green burs form to prevent production of viable seed.

**Deathcamas** begins growth early in the spring. Most losses occur at this time because forage is scarce and deathcamas is about the only available green forage.

Apply 2 pounds per acre of 2,4-D low volatile ester in the spring. One treatment gives about 65 per cent control on this plant. Using the 2 pounds per acre rate, retreating the second and third year is necessary to obtain 100 per cent control. Much better control can be achieved with 3 pounds per acre of 2,4-D low volatile ester.

**Larkspur** can be controlled by spraying with 2 pounds per acre of 2,4-D low volatile ester. Apply the chemical any time from emergence to the rosette stage of growth. Apply early in the season for good control. Larkspur becomes tolerant to the chemical at the flower bud stage when most of the basal leaves are dead.

Areas sprayed early generally can be grazed safely the same season. The 2,4-D kills the tops of established plants and regrowth does not occur during the grazing season.

Keep livestock off such sprayed areas for at least 4 days because the palatability of the plants may increase immediately after spraying.

Hand digging is the most reliable method of eradicating larkspur when only scattered plants occur.

**Locoweed** is readily controlled with 1 pound per acre of either 2,4-D ester or amine. Under drouthy pasture conditions, higher rates of chemical are required.



Henbane  
(*Hyoscyamus niger*)

Lupine is susceptible to 2,4-D low volatile ester and is readily controlled by a one pound per acre rate. Spray in the spring as the plant is dangerous during its entire growing period. However, lupine is most dangerous in late summer after the formation of the seed pods.

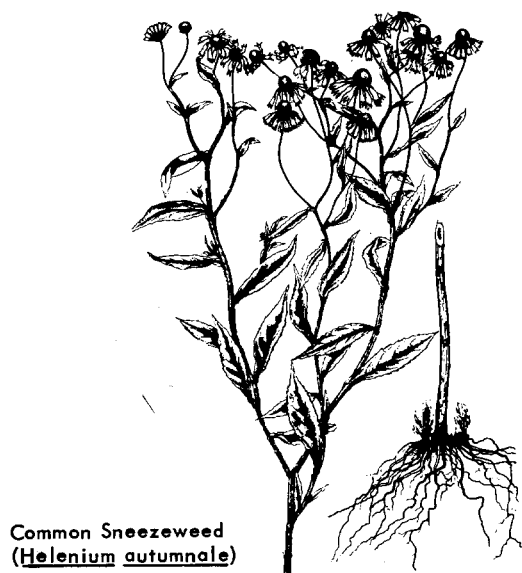
Nightshade is easily controlled by cutting, hoeing or pulling. Occasional or spray plants under trees or in shrubbery should always be destroyed to prevent birds from eating the berries and scattering the seed. Nightshade is resistant to 2,4-D.

Poison Ivy is best treated after leaves are fully expanded in late spring or early summer. Do not treat after leaves have turned yellow. Occasionally, retreatment is necessary the following year when leaves are fully expanded. Use 2 tablespoons of either amitrole or 2,4,5-T in 1 gallon of water. Silvex also can be used at the same rate. Wet all vegetation thoroughly. Poison ivy is much more sensitive to amitrole than are other plants and is considered to be sensitive to herbicides but avoid spray drift to desirable vegetation.

Water Hemlock can be controlled effectively with 2 pounds per acre of 2,4-D low volatile ester applied at the pre-bud stage of growth. The roots and young shoots are dangerous throughout the year, especially in the spring and fall.

#### OTHER CAUSES OF HUMAN AND ANIMAL POISONING

**ERGOT** - Blackened, diseased seeds of grasses and grain, especially of rye, that contain strong poisons. Rusted and smutted material is not injurious but see Scab.



Common Sneezeweed  
(Helenium autumnale)

**HAY FEVER** - Caused by pollen from a great variety of plants, especially ragweed. Consult a doctor for tests.

**MEDICINES** - Overdoses of common medicines may cause severe illness in children. Keep medicines out of the reach of children.

**NITRITES** - Under some conditions potassium nitrite accumulate in leaves in abnormally large amounts and causes poisoning. This has happened in oat hay or straw grown on rich soil, in kochia (burning bush) in certain other weeds and sugarbeets sprayed with 2,4-D.

**SCAB** - A gray or pink fungus occurring on heads of grain and in ears of corn. On barley it has caused losses in hogs.

**SELENIUM** - This chemical element occurs in clay soils in western North Dakota. When absorbed by "converter plants" (chiefly three species of milkvetch in North Dakota) it is poisonous to animals eating these plants. Also the decaying plants leave selenium in condition to be absorbed by vegetables and grains. Such soils are not likely to be used for a garden but should be avoided. The trouble caused by it formerly was known as alkali disease and resulted in sloughing of hooves, tails and other parts.

**SPRAY MATERIALS** - Many chemicals used for controlling insects, diseases and weeds are poisonous to man. Follow carefully instructions on the containers in which the chemicals are sold.

**WEED SEEDS** - Seeds of cow cockle (*Saponaria vaccaria*) contain a poisonous substance and some other seeds may be irritating. Weed seeds are not a likely cause of poisoning but the use of unground or unheated weed seeds is one way in which these seeds become scattered to fields.



Ergot - Growths projecting from spikes of meadow foxtail and rye.