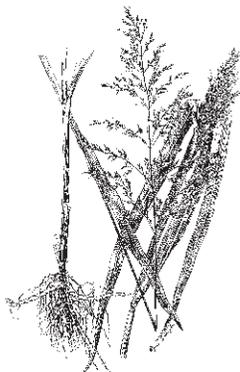




FACT SHEET

Pasture Management Common Plants Poisonous to Livestock in Maryland

Fact Sheet 721



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Normally, the threat of poisonous plants to grazing animals is very small. A well-managed pasture provides enough good grass and legume that the animals have no reason to eat the unpalatable, less desirable poisonous plants. In addition, a well-managed pasture does not provide enough space for very many undesirable plants to get established.

Even in a poorly managed pasture there are still enough harmless plants to eat so that poisonous plants are not usually a threat. However, during hot, dry weather the desirable cool season plants become dormant leaving summer-adapted weeds to populate the pasture. Most of these weeds are perfectly safe to eat, in fact, some are quite nutritious; but some can be deadly under certain conditions. This same situation can develop in an overgrazed, poorly managed pasture where the lack of desirable forage can cause the livestock to eat not only weeds, but also the leaves of woody plants. These can be very poisonous.

If there are weeds (including poisonous plants) in the pasture, it is important to keep them mowed down. This keeps them somewhat under control and less likely to be eaten by the animals. It is also a good idea to maintain a supplemental supply of feed, such as hay, in the pasture. Hungry animals are more likely to eat poisonous plants. If weeds of any kind are a serious problem, improving pasture management will reduce their pressure.

One final note of advice. It is a good idea to keep a watchful eye over your animals and become familiar enough with their behavior to recognize any changes. If you suspect something is wrong, call your veterinarian immediately. Speedy treatment is critical with many disorders, but is doubly critical with suspected plant poisoning. This means that you should be able to identify the plants that are growing in and around the pasture, the potentially poisonous species in particular.

Educating People To Help Themselves

Black Nightshade

(Solanum nigrum)

Description: It is a low annual ranging from 6 inches to 2 feet in height, with many leafy branches. The small white flowers are followed by clusters of small green, round berries which turn black. It can sometimes be found growing in hedgerows, barn lots,

pastures, field borders, and cultivated legume fields.

Poisonous parts: Green berries and leaves.

Signs of poisoning: Marked thirst, diarrhea, loss of appetite, general body weakness, irregular gait, inability to stand, coma.

Animals affected: All animals.



Johnsongrass

(*Sorghum halepense*)

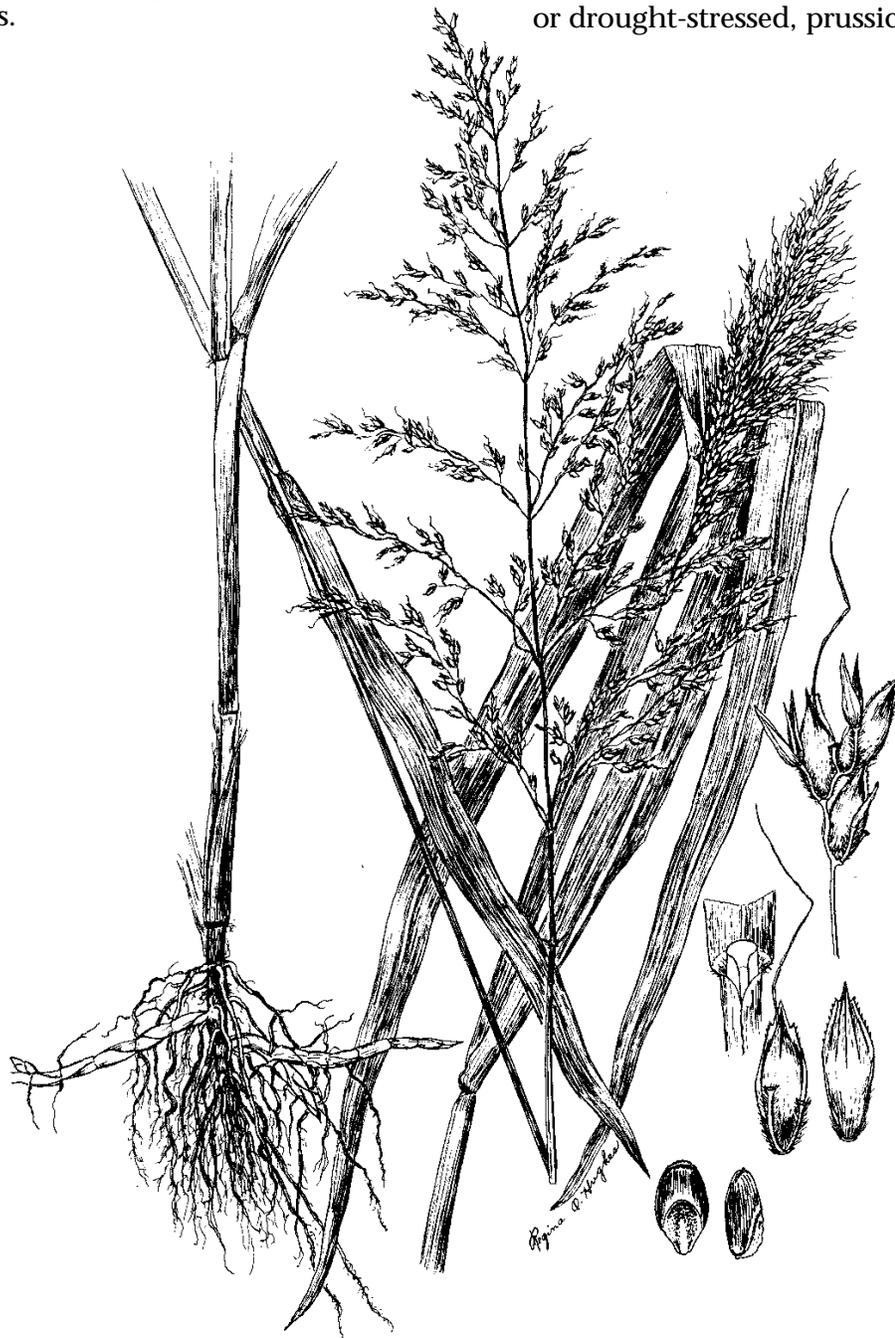
Description: This perennial grass resembles Sudangrass to which it is closely related. The stems arise from a network of thick, underground creeping rhizomes which aggressively crowd out other plants. It will grow to a height of 3 to 7 feet. The leaves are often purple- or orange-spotted due to attacks by disease organisms. The flowering heads are very similar to Sudangrass but tend to be darker. Johnsongrass is found in a variety of areas.

Poisonous parts: Leaves and stems when the plant is short (less than 12 inches) and has been injured by frost or drought-stressed.

Signs of poisoning: Slobbering or frothing at the mouth, gradual increase in respiratory rate, labored breathing, muscle twitching, staggering, bleeding from mouth and nasal passages.

Animals affected: All animals.

Notes: Johnsongrass ordinarily makes an excellent feed, however when it is short (less than 12 inches) and has been injured by frost or drought-stressed, prussic acid (HCN) forms.



Poison Hemlock

(*Conium Maculatum*)

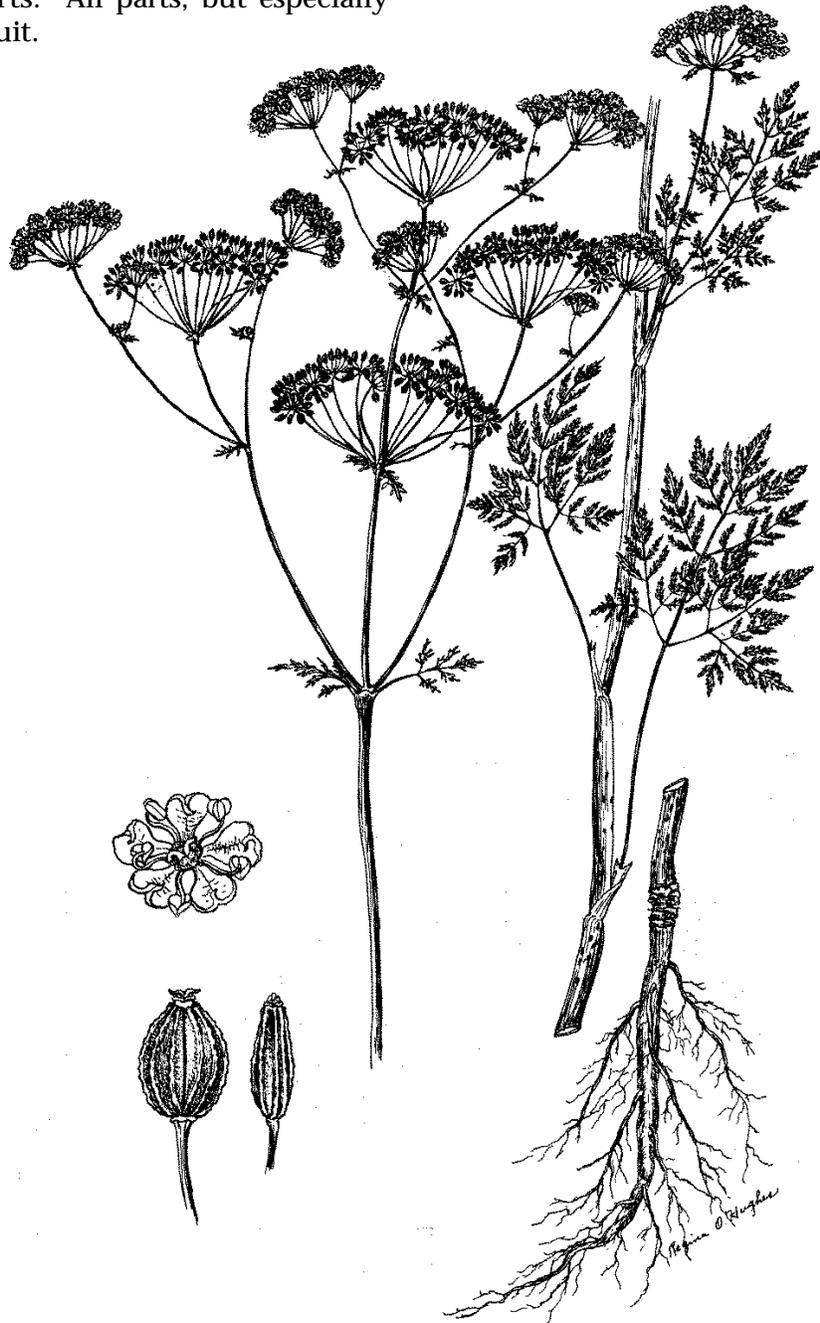
Description: A biennial plant that may be found growing along the borders of fields, pastures, meadows, roadsides, and waste areas. It can reach heights of over 9 feet and has stout, branching stems with purple spots. The pale green leaves are lacier or more delicate-looking than the leaves of spotted water hemlock. The flowers are small, white and are borne on the end of branches in flat clusters.

Poisonous parts: All parts, but especially the leaves and fruit.

Signs of poisoning: Nervousness, twitching of muscles, salivation, incoordination, bloating, dilation of pupils, rapid and weak pulse, blue coloration of mouth lining, coma.

Animals affected: Cattle, goats, horses, sheep.

Notes: One pound of green plant is enough to kill a mature sheep. Large doses of mineral oil are a possible treatment if administered before the poisoning has progressed too far. It has been suggested that nonlethal amounts of this plant ingested during pregnancy may cause birth defects.



White Snakeroot

(*Eupatorium rugosum*)

Description: There are several species of this plant poisonous to livestock. It is a perennial, shade-loving plant, inhabiting mostly wooded pastures. It can reach a height of 2 to 3 feet with dark green, sharply toothed leaves located on opposite sides of the stem. The white flowers are borne on the ends of branches in flat clusters. It is shallow-rooted with blackish roots forming a crown or cluster.

Poisonous parts: Leaves and stems.

Signs of poisoning: Marked trembling of skeletal muscles, incoordination, general body weakness, inability to stand, and constipation. Cattle breath may have an acetone odor. Horses may experience an inability to swallow.

Animals affected: Cattle, horses, sheep.

Notes: Stimulants and calcium gluconate are helpful in treatment. The poison is primarily found in the green tissue and decreases as the plant dries. The poison is accumulative and can be transmitted in milk.



Perilla (Purple Mint)

(Perilla frutescens)

Description: This annual plant can be as much as 2 feet tall, with rounded leaves up to 6 inches wide. The leaf edge is coarsely toothed. The flowers are arranged on an elongated stalk that grows above the leaves. There are numerous flowers along this stalk arranged on three of the four sides of the four-sided stalk. The purple flower is two-lipped like a snapdragon. The plant is in flower in late August and in fruit from October to the first heavy frost. When fresh, perilla has a distinctive odor that becomes easily recognizable.

Poisonous parts: Leaves, stems and flowers.

Signs of poisoning: The affected animal stands away from the herd, usually with its head down, breathing very hard and loudly, usually with froth around the mouth and nose. The resulting pneumonia has a rapid course of 1 to 3 days with many cases resulting in death within 24 hours.

Animals affected: All animals.

Notes: The peak season for perilla poisoning is usually from August to October, which corresponds to when most pastures in our area are overgrazed. Perilla is often found along tree lines and within poorly maintained pastures. The best prevention for perilla poisoning is to keep animals away from wooded areas and practice good pasture management.

Wild Cherry

(Prunus virginiana)

Description: It is a small tree with smooth dark bark, green oval leaves with small-toothed edges, and small red to black fruit borne solitary or in clusters much like grapes. This is a very common tree in our area.

Poisonous parts: Leaves and young twigs.

Signs of poisoning: Nervousness, rapid and labored breathing, trembling or jerking muscles, blue color of mouth lining, bright red venous blood, bloating, bitter almond type odor in rumen gas, convulsions, and coma.

Animals affected: Cattle, goats, sheep.

Notes: The leaves and young twigs of the tree are only poisonous when wilted. Animals can graze normal, fresh leaves from the tree without harm. Prussic acid (HCN) is produced when the leaves are wilted from frost, drought, or a broken limb. Once the leaves have dried, they are no longer poisonous to animals. It is a good idea to keep livestock out of pastures containing wild cherry trees after a hard frost or a severe wind storm until an inspection of the area can determine that it is safe to allow the animals to enter. An even easier alternative would be to eliminate the wild cherry trees from the pasture. Typically, 1 pound of wild cherry leaves, consumed in a 1 hour period, will kill a mature sheep.

Other Wild Poisonous Plants

Plant	Poisonous Parts
Black Locust (<i>Robinia pseudo-acacia</i>)	Inner bark, young leaves, and seeds
Cocklebur (<i>Xanthium pensylvanicum</i>)	First leaves of seedling and seeds
Field Horsetail (<i>Equisetum arvense</i>)	All vegetative parts
Goldenrod (<i>Solidago canadensis</i>)	Leaves and stems
Hemp Dogbane (<i>Apocynum cannabinum</i>)	All parts
Jimsonweed (<i>Datura stramonium</i>)	All parts
Oak (<i>Quercus</i> sp.)	Leaves, stems, buds, flowers, and acorns
Pokeweed (<i>Phytolacca americana</i>)	All parts
Spotted Waterhemlock (<i>Cicuta maculata</i>)	All parts, primarily the root, rootstalks and ground stem
Star-of-Bethlehem (<i>Ornithogalum umbellatum</i>)	Bulb

Common Poisonous Ornamental Plants

Plant	Poisonous Parts
Azaleas (<i>Rhododendron</i> spp.)	All parts
Bleeding Heart (<i>Dicentra spectabilis</i> and <i>D. eximia</i>)	Leaves and roots
Castor Bean (<i>Ricinus communis</i>)	Seeds
Cherries, Cultivated (<i>Prunus</i> spp.)	Wilted leaves and twigs
Daffodil (<i>Narcissus</i> spp.)	Bulbs
Daphne (<i>Daphne</i> spp.)	Berries
Delphinium (<i>Delphinium</i> spp.)	Young plant, seeds
Dieffenbachia (<i>Dieffenbachia</i> spp.)	All parts
Elderberry (<i>Sambucus canadensis</i>)	Shoots and leaves
Foxglove (<i>Digitalis purpurea</i>)	Leaves
Gold Chain (<i>Laburnum x watereri</i>)	Seed pods
Hyacinth (<i>Hyacinthus</i> spp.)	Bulbs
Iris (<i>Iris</i> spp.)	Underground stems
Jack-in-the-Pulpit (<i>Arisaema triphyllum</i>)	All parts
Jessamine (<i>Gelsemium sempervirens</i>)	Berries
Larkspur (<i>Delphinium</i> spp.)	Young plant, seeds
Lantana (<i>Lantana</i> spp.)	Green berries
Lily of the Valley (<i>Convallaria majalis</i>)	Leaves and flowers
Mayapple (<i>Podophyllum peltatum</i>)	Apple, leaves, and roots
Mistletoe (<i>Phorodendron serotinum</i>)	Berries
Monkshood (<i>Ampeopsis aconitifolia</i>)	Fleshy roots
Narcissus (<i>Narcissus</i> spp.)	Bulbs
Oleander (<i>Nerium oleander</i>)	Leaves and branches
Poinsettia (<i>Euphorbia pulcherrima</i>)	Leaves
Rhododendron (<i>Rhododendron</i> spp.)	All parts
Rhubarb (<i>Rhuemthaponticum</i>)	Leaf blade
Wisteria (<i>Wisteria</i> spp.)	Seeds, pods
Yew (<i>Taxus</i> spp.)	Leaves and berries

Other resources:

100 Poisonous Plants of Maryland, Maryland Cooperative Extension Service Bulletin 314.

Causes and Prevention: Prussic Acid Poisoning of Livestock, Maryland Cooperative Extension Service Fact Sheet 427.

Drawing credit: *Selected Weeds of the United States*, Agriculture Handbook No. 366, Agricultural Research Service, United States Department of Agriculture.

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