

Poisoning of Horses by Plants

Penny Lawlis, Animal Care Inspector
OMAFRA

Horses will usually avoid eating poisonous plants (they don't taste very good) as long as there is an abundant supply of good quality hay or pasture available. However, faced with no pasture or hay, a horse might decide to sample one of the poisonous weeds still left standing in the field.

The best medicine for dealing with poisonous plants is ... PREVENTION.

- Ensure that horses on pasture have adequate hay and/or pasture so that they won't have to resort to eating poisonous weeds.
- Avoid overgrazing, if no supplemental hay is provided.
- Learn to recognize poisonous weeds and control them by pulling or by use of commercially registered herbicides.
- Examine your hay for unwanted plants.

Poison Hemlock

Poison Hemlock is found throughout North America in water areas, roadsides and dry ditches. It is distinguished from other members of the carrot or parsley family by its smooth stems with reddish purple spots and finely divided leaves.

Poison Hemlock contains assorted piperidine alkaloids that cause respiratory failure in less than three hours.

After ingestion, the following symptoms may be observed:

- frothing at the mouth
- uneasiness
- dilated pupils
- weak, rapid pulse
- convulsions
- clamping of jaws

Stimulants administered immediately and supportive therapies may help to counteract the effects of the poison conine found in this weed.

Death may occur within 15 minutes.

A veterinarian should be consulted immediately for supportive treatment to reduce the damage caused by ingestion of poisonous plants.



Tansy Ragwort



The yellow flowers of the Tansy Ragwort flower from July to October; the flowers give off an unpleasant odour. Tansy Ragwort is found throughout North America in pastures, hayfields, waste areas and roadsides.

Tansy Ragwort contains liver-damaging alkaloids which cause liver cells to expand, then die.

Symptoms include:

- weakness
- liver failure
- high temperature
- incoordination
- yellow mucous membranes

No known anti-dote for this alkaloid based toxin. Efforts should be concentrated on prevention through pasture management.

A veterinarian should be consulted immediately for supportive treatment to reduce the damage caused by ingestion of poisonous plants.

Field Horsetail

Field Horsetail is found in poorly drained soils, as well as low, sandy or gravel soils with good drainage. It can severely suppress field crops and other plants. It is especially poisonous in young horses. Hay containing this weed may be more poisonous than fresh plants in the field. Symptoms are slow to develop.

Symptoms:

- jaundice
- loss of appetite
- weakness
- staggering gait
- excitability
- paralysis



There is no known anti-dote. Toxic substance is thiaminase plus an unknown factor which wipes out Vitamin B.

A veterinarian should be consulted immediately for supportive treatment to reduce the damage caused by ingestion of poisonous plants.

Buttercups

This yellow flowered weed is very common throughout North America, particularly in wet areas. Buttercups include tall (2.5 feet), creeping, meadow and celery leafed varieties.

Buttercups contain irritant juices that severely injure the digestive system. Sap from stems can cause inflammation and blistering on skin or mucous membranes and even around the hooves of horses used to harvest. Note: poison is inactive when buttercup is dried and included in hay.



Symptoms from ingestion include

- mouth blisters cause drooling and loss of appetite
- colic
- bloody urine
- diarrhea
- colic
- twitching of the eyelids
- loud breathing
- weak pulse

There is no known antidote for the poison ranunculin found in the buttercup varieties. Efforts should be concentrated on prevention through pasture management.

A veterinarian should be consulted immediately for supportive treatment to reduce the damage caused by ingestion of poisonous plants.

Yew

Yew trees are extremely toxic to horses and all grazing animals. Yew poisoning is the commonest form of animal poisoning. All parts (dead or living) are poisonous, especially the leaves. Yew contains an alkylid that depresses the action of the heart.

Yew is sometimes used in hedges or as an individual ornamental plant, e.g. be careful what you put in the show ring! Yew needles are greenish-yellow on the under surface and have no white stripes.



Symptoms:

- moderate amounts - mild to severe digestive upsets that may result in death
- sudden death, without warning or symptoms
- A handful of Japanese yew is enough to kill a horse!
- A veterinarian should be consulted immediately for supportive treatment to reduce the damage caused by ingestion of poisonous plants.

Oleander

Oleander is a common outdoor woody shrub in warmer regions and is grown occasionally as a large potted plant. Its flowers are show and very fragrant, but the belief that their perfume is dangerous is unfounded.

Oleander ranks with yew in toxicity. Oleander contains a poisonous principle similar to digitalis in its effect on the heart, causing arrhythmia and cardiac arrest. The effects are reversible and the horse may recover if he ingests a less-than-lethal dose (a single ounce of oleander leaves can kill a 1,000 lb. horse).



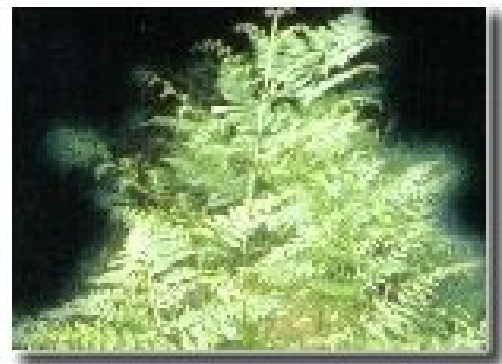
Symptoms:

- colic
- sweating
- bloody diarrhea
- difficult breathing
- arrhythmia

A veterinarian should be consulted immediately for supportive treatment to reduce the damage caused by ingestion of poisonous plants.

Bracken Fern

Also referred to as Eastern bracken, this weed is found in open fields and woodlands. Leaves of bracken fern are poisonous to horses both when fresh and when dry in hay. Cattle are far more likely to be poisoned by bracken than horses. Bracken fern contains thiaminase, which causes a deficiency in Vitamin B1 (thiamine) and which is important for proper nerve function. It would be necessary for a horse to ingest hundreds of pounds of bracken over a week or more in order for a problem to occur. Symptoms are slow to develop.



Symptoms:

- loss of flesh
- jaundice
- loss of appetite
- weakness
- staggering gait
- excitability
- paralysis

Well-timed injections of thiamine can successfully reverse the damage caused by ingestion of bracken fern.

A veterinarian should be consulted immediately for supportive treatment to reduce the damage caused by ingestion of poisonous plants.

St. John's-Wort

St. John's-Wort occurs throughout Ontario in pastures, edges of woodlots, roadsides, abandoned fields, water areas and occasionally in lawns and lower borders.

If eaten by horses, St. John's-Wort may cause photosensitization, since this weed contains black dots composed by hypericin, a pigment that is absorbed by the body and activated by exposure to sunlight. Ingestion can result in a condition in which patches of white or light-coloured skin become seriously sunburned under normal exposure to sunlight.



Symptoms:

- photosensitivity
- inflammation of the unpigmented portion of the skin
- affected area becomes sore and reddened and may peel
- tongue and mouth may be affected

Treatment: Avoid pasturing horses where this weed is abundant or keep animals under shade during normal sunny days.

A veterinarian should be consulted immediately for supportive treatment to reduce the damage caused by ingestion of poisonous plants.

Nightshade

Climbing nightshade occurs throughout Ontario in open woods, edges of fields, fence lines, roadsides and occasionally in hedges and gardens.

Stems and leaves are poisonous to livestock. Nightshade contains alkaloids that interfere with digestion by inhibiting the autonomic and parasympathetic nervous systems and by directly irritating the digestive system.

Symptoms:

- abdominal pain
- stupidity
- dilation of pupils
- loss of appetite
- diarrhea
- loss of muscular coordination
- unconsciousness
- death

A veterinarian should be consulted immediately for supportive treatment to reduce the damage caused by ingestion of poisonous plants.

