Various Symptoms of Poisoning in Horses

**Poison Hemlock.** After ingestion, the following symptoms may be observed:

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

**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.

**Groundsel** Contain pyrrolizidine alkaloids, which cause irreversible liver damage with prolonged exposure. All parts of common groundsel contain toxins; however, toxin concentrations are greatest in the flowers, and in the leaves just before flowers reach maturity. Obvious signs of poisoning often do not appear until liver damage is severe. Early symptoms include:

- anorexia and depression & are followed by incoordination, diarrhea,
- presence of hemoglobin in the urine, cirrhosis of the liver, and death.

**Field Horsetail.** 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.

**Buttercups.** Symptoms from ingestion include:

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

There is no known antidote for the poison ranunculin found in the buttercup varieties.

**Yew** trees are extremely toxic to horses and all grazing animals. All parts (dead or living) are poisonous, especially the leaves. Yew contains an alkyloloid that depresses the action of the heart. A handful of Japanese yew is enough to kill a horse!

- moderate amounts - mild to severe digestive upsets that may result in death
- sudden death, without warning or symptoms.

**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. Symptoms:

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

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)

**Nightshade contains** alkaloids that interfere with digestion by inhibiting the autonomic and parasympathetic nervous systems & by directly irritating the digestive system.

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

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

**Milkweed** Galitoxin is found in all vegetative parts of the plant, all parts whether green or dry are poisonous. Cattle, sheep and horses are most susceptible. Clinical signs are:

- profuse salivation, incoordination, dizziness
- violent seizures/spasms, colic
- rapid & weak pulse, respiratory paralysis

Treatment includes gastrointestinal detoxification, sedation or tranquilization and medical treatment to counteract cardiac glycoside effects (arrhythmias).

**Pokeweed** is a plant that will cause severe poisoning and is one that livestock will not avoid eating. The toxic compound is an alkaloid called phytolaccotoxin. Horses can be poisoned by eating fresh leaves or green fodder. Symptoms of poisoning from pokeweed include:

- burning sensations in the mouth, salivation
- gastrointestinal cramps, colic, convulsions
- diarrhea

Use Gastrointestinal protectants & try to ease symptoms.

Info from
Black Walnut Trees
Exposure: shavings or sawdust from walnut trees is occasionally used as animal bedding. Juglone is the toxic substance. They will cause problems if ingested or if they contact with the skin. Clinical signs in horses occur within 24 hours of exposure to walnut shavings and include:

- rapid onset of laminitis,
- a digital pulse,
- distal edema (swelling) of the limbs
- rapid respiration and elevated temperature

The source of the walnut should be removed & gastrointestinal detoxification carried out using mineral oil or activated charcoal & a mild cathartic. The legs & feet should be washed.

Black Locust Trees
Robin, a plant phytotoxin, is similar to the toxic principles found in castor bean (ricin) and rosary pea (abrin). The bark, seeds and leaves contain the toxin. Signs:

- Nausea, diarrhea and renal failure
- weakness, labored breathing
- rapid heart beat and depression.

Consumption of as little as 0.04% of body weight is toxic to horses. Treatment is of limited value, but should include detoxification and supportive therapy.

Red Maple Trees
Fresh, wilted and dried leaves are toxic and ingestion of as little as 0.3 % of the body weight as leaves is toxic to horses. Only equine are affected. Clinical signs are typical of acute hemolytic disease:

- depression
- jaundice (yellowish tissues)
- hemoglobinemia and hemoglobinuria (blood in urine)
- Rapid respiration & heart beat may result from severe anemia. Cyanosis (bluish or purple discoloration of the skin) may also be present.

Treatment is completely supportive, because there’s no antidote. Prevention. Do not plant red maples near horse pastures. Remove existing red maples in or near pastures.

Oak Trees
Both leaves and acorns, especially sprouted acorns, contain (tannin) the toxin and toxicity is not diminished by freezing or drying. Oak poisoning is most common in cattle and calves, much less so in sheep and horses. (½ the diet –over long time) Poisoned animals become weak and prostrate 3-7 days after exposure and mortality may be high. Symptoms include:

- Colic, weakness, anorexia,
- Constipation, depression, diarrhea
- Blood in the urine, and jaundice

Animals should be removed from further access to oak and given activated charcoal, oils, or ruminatorics. Fluids also help with dehydration.

Cherry Trees – Chokecherry & Wild Black
Toxic principle: cyanogenic glycosides or cyanogens. Ingestion of 100 g of wild cherry leaves with ~ 200 mg CN per 100 grams would be lethal to a 100 lb. animal. Clinical signs: Animals are commonly found dead due to rapidity of cyanide’s effects. When observed, signs may include:

- excitement, general muscle tremors, dyspnea, rapid breathing
- salivation, defecation, urination followed by convulsions and death.

Rhubarb
Toxins: Oxalic acid, uncharacterized soluble oxalates, and possibly other toxins are believed responsible for poisonings. SYMPTOMS:

- gastroenteritis, cramps, weakness, respiratory difficulties, irritation of the mouth and throat,
- poor clotting of the blood, internal hemorrhaging, coma, staggering, salivation, convulsions, and death.

Rhubarb leaves are known to have caused the death of both humans and livestock. TREATMENT: with lime water, chalk, or calcium salts;

Locoweed
The flowers, leaves, mature fruit, seeds and stems are the toxic parts of the plant containing the alkaloids. Horses typically avoid locoweed, but once they have sampled it a few times, they can become addicted to it. They have to graze on it for a period of time before symptoms appear and the most obvious symptoms may not appear until well after the horse has stopped eating it. These symptoms include

- Altered gaits, aimless wanderings, sometimes in circles
- Impaired vision (to the extent they bump into things or fall into arroyos or other depressions) and erratic behavioral changes.
- They may appear listless or complacent, then wildly overreact to an unexpected event.

Alkaloid poisoning has a cumulative effect which can be absorbed over long periods of time until symptoms appear and the effects in many cases are irreversible.

Tall Fescue – Endophyte
Tall fescue is the most widely grown forage in the USA. However, it can become infested with a fungus that can cause many problems primarily related to foaling. The fungus is an endophyte (grows inside the plant) that does not adversely affect plant growth. The primary problems associated with infected fescue are abortions, prolonged gestations, dystocia, agalactia, and thick or retained placenta. The end result is increased foal and mare deaths. The endophyte can be found both in pasture and hay. There is a fungus-free seed available, but the only way to determine if the fescue presently being fed is fungus-free is by laboratory analysis.