KENTUCKY EQUINE RESEARCH
Equine Review

HL 06

Fields, Fencerows, and Yards May Harbor Poison Plants

Your pastures are securely fenced and clear of dangerous objects. Your water tank is clean and freshly filled. Your farrier visits regularly, and your horses are always up-to-date on deworming and vaccinations. What other factor could threaten the well-being of your horses? Depending on weather, environmental conditions, and horse-keeping practices, **even well-managed farms can have problems with plant poisoning.**

With a few rare exceptions, **horses will usually avoid toxic plants** even if they are intermixed with other pasture grasses. **Some factors that might lead horses to ingest poisonous plant material include:**

- ***Hunger.*** A horse confined to a very small paddock, or in a larger field where the grass is depleted by overgrazing or drought, may sample plants that would ordinarily be ignored.
- ***Curiosity.*** All horses like to explore their environment, and young horses especially tend to mouth or chew plants that they have no intention of swallowing.
- ***Condition or stage of maturity.*** Stress or damage (frost, drought, withering) causes some harmless plants to form or accumulate toxins. Withered black cherry tree leaves, for example, develop a sugar molecule along with a cyanide compound, and the sweet taste may encourage ingestion.
- ***Accidental introduction.*** Under some circumstances, horses may come in contact with plant material that is not normally in their environment. Ornamental shrubs such as yew (*Taxus*) are usually not encountered in pastures, but if clippings from these bushes are disposed of in grazing areas, horses may nibble on them and become ill or die. The same thing might happen if a horse is ridden or tied near landscape plants or is allowed to graze in a yard.

Some of the most common poison plants are listed below.

- **Red maple** (eastern U.S. and southeastern Canada). Horses eating wilted leaves can develop weakness, severe anemia, and kidney damage within a few days. Treatment is mostly supportive, and prognosis is guarded.
- **Black walnut** (eastern two-thirds of U.S.). Horses bedded on black walnut shavings or sawdust develop swelling in the lower legs, pain in the toe area, heat in the hooves, and a strong digital pulse. Removing the horse from the bedding and treating for laminitis is usually successful.
- **Oleander, mountain laurel, rhododendron** (woody areas with acid soil throughout U.S.). These related ornamental shrubs contain andromedotoxin that leads to irregular breathing, incoordination, blindness, and death. Recovery is possible with early treatment.

- **Plum, peach, chokecherry** (throughout most of U.S.). As with wild cherry and several other ornamental fruit trees, leaves and seeds contain cyanide compounds that inhibit uptake of oxygen in body cells. Affected horses show elevated respiratory and heart rates. While death can occur very quickly if a horse ingests a large quantity of leaves, less severely affected horses can often be successfully treated.
- **Milkweed** (most areas of U.S.). This plant family (*Asclepius*) includes swamp milkweed, whorled milkweed, common milkweed, and the orange-flowered butterfly weed. The bitter-tasting plants are rarely eaten in the green stage but may be cut and baled with hay. Signs of poisoning include diarrhea, loss of coordination, and labored breathing. In severe cases, respiratory failure leads to death. Sedatives may help in mild cases.
- **Lily, iris, daffodil, poppy** (cultivated flowerbeds). Different parts of many ornamental flowers can cause digestive upset, irregular heartbeat, nervous system abnormalities, and fetal deformities. Because some reactions are severe or even fatal, avoidance is the safest policy.
- **Buttercup, marsh marigold, jack-in-the-pulpit, may apple** (forests, pastures, swampy areas). Wildflowers and other plants found in natural areas contain many toxic substances. Watch what horses eat while trail riding, camping, or using new areas for turnout. Look for unfamiliar plants before letting horses graze on areas not previously used as pasture, and provide hay to tied or picketed horses rather than turning them out in wooded or wet areas.
- **Rhubarb, onion, tomato, potato,broccoli, cabbage, kale** (vegetable gardens). While most garden vegetables are not extremely toxic to horses, some can cause anemia, digestive disturbances, kidney damage, or nervous symptoms if eaten in large quantities. Avoid grazing horses in garden areas, and don't dispose of kitchen or garden waste (peelings, vines) where horses may encounter this material.

Prevention of poisoning involves becoming familiar with the toxic plants in a region and finding ways to eliminate them from the horse's diet. Help is available from agricultural extension agents, veterinarians, and residents who own horses or other livestock in the local area.

Public and university libraries often contain **guidebooks** with extensive lists and illustrations of poison plants. There are several helpful **Web sites** as well. For extensive general information, go to www.ansci.cornell.edu/plants.html. The University of Illinois offers toxic plant facts at www.library.uiuc.edu/vex/toxic/toxic.htm. The National Animal Poison Control Center site can be accessed at www.napcc.aspca.org. In Canada, similar information can be found at res.agr.ca/brd/poisonpl.

A call to the **Animal Poison Control Center** reaches toxicologists and veterinarians who can give immediate advice, referrals to a local vet, written guidelines, and follow-up calls. The number is 888-426-4435, and the $45.00 fee can be paid by credit card.