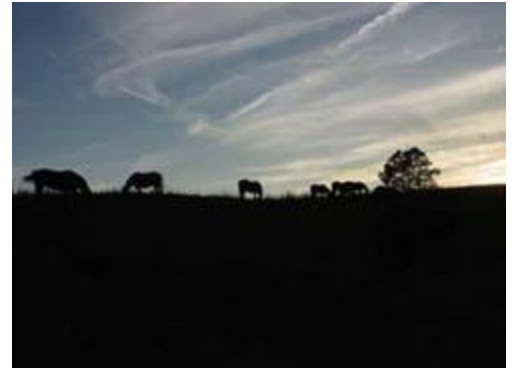


Fall Hazards -- Fallen Leaves

Because we are so short on pasture grass and hay this fall, horse owners are looking for alternative forage sources. Owners beware, there are a few things you DO NOT want to do.

During drought conditions, like this past summer, forages may be scarce. Overgrazing encourages animals to consume plant species that they may normally avoid. However, when feed is short, or animals are hungry, plants normally avoided become a tempting source of feed, thus a potential poisoning problem. Adverse climatic conditions, such as drought or frost may increase the toxic properties in many plants. Horses on over-grazed or drought-stricken pastures will need to be fed hay or other alternative forage sources to keep them from eating infected weeds or toxic plants.



Because we are so short on pasture grass and hay this fall, horse owners are looking for alternative forage sources. **Owners beware**, there are a few things you DO NOT want to do:

1. **Never feed lawn grass clippings or raked leaves from the yard.** Grass clippings contain fertilizer higher in nitrogen than that used on pastures. In addition, lawn weed and feed products contain herbicides used to control weeds. Both high nitrate and herbicide residues can be harmful if eaten by the horse.

Grass clippings makes great compost, and can decompose quickly releasing gas. This fermented grass can release gas in the horse's digestive system and may result in colic.

2. **Do not dispose of your raked leaves into your pasture**, dispose of them properly or compost in an area outside of the horse's pasture. Horses like the taste and smell of recently fallen leaves. However, the leaves are dense and can compact in the horse's digestive system and cause compaction colic. The horse's GI tract is a delicate system. Therefore, feeds should be selected not only for their ability to meet the animal's nutrient requirements, but also for compatibility with the horse's GI tract.

The horse's gut functions best with small amounts of feed moving through it regularly, keeping it somewhat full. This is best accomplished by trying to maximize the amount of forage being fed in the diet and minimize the amount of grain **while still meeting the horse's requirements**. In addition, horses should have constant access to plenty of fresh, clean water because the gut requires an adequate amount of water to function normally, preventing compaction and colic.

3. **Feeding dense leaves and grass clipping can result in "choke"**. If feed becomes lodged in the esophagus, the end result is called "choke". Choke in the horse occurs in the esophagus and, although it is painful and uncomfortable to the horse, it is not life-threatening as in humans where the airways are cut off. Feed in the esophagus can only move in one direction – toward the stomach. A choking horse often presents itself with its head hung low with saliva and masticated feed coming out of the horse's nostrils. A choking horse requires immediate veterinary attention and is usually treated with minimal complications.

4. **Do not forget to fill the water tank.** Horses require more water during a drought because they are forced to eat more fibrous, less palatable grasses and weeds. In addition to hydration, horses require extra water to maintain the movement of the courser material through their guts.

Drought conditions can also severely affect the water source quality. Because of evaporation, natural water sources can contain higher concentrations of minerals and/or contaminants that would be diluted under normal circumstances.

Be aware of leaves and trees that are toxic to your horse and fence off wooded areas or fence rows that contain possible toxic substances. The following are trees that are highly toxic to horses:

Red Maple (*Acer rubrum*) Poisonings occur generally in late summer and fall, when leaves fall and drift onto pasture area. Red maple leaves are **HIGHLY TOXIC** to horses. Ingestion of 1.5 pounds is toxic, ingestion of 3 pounds or more is fatal. **Symptoms:** Death is common in cases of red maple poisoning, due to massive destruction of red blood cells. Signs include breathing difficulty, jaundice, urine that is dark brown in appearance, increased heart and respiratory rates, and lethargy. 50-75% of affected horses will die or be euthanized. Do not put leaves in hay and make sure there are none within reach of pasture area. In case of ingestion, call your vet immediately.

Black Walnut (*Juglans nigra*) Black walnut can be introduced to horses through trees that grow around pasture land or, more commonly, as shavings used in stall bedding. Shavings with less than 20% black walnut content are toxic within 24 hours of exposure, but are usually nonfatal with proper treatment. Signs of black walnut toxicity include laminitis (which will worsen with continued exposure) reluctance to move, increased temperature and heart rate, difficulty breathing, digital pulse, limb edema, and increased gut sounds. Remove stall shavings immediately. Cooling the legs and hooves with a hose can help make the horse more comfortable. If caught relatively soon, recovery should be complete. In cases of severe laminitis and edema, consult your veterinarian.

Choke Cherry (*Prunus* species) Choke cherry is in the *Prunus* species. Leaves, twigs, bark, and pit are all toxic to livestock. Symptoms include anxiety, weakness, convulsions, death. The problem is caused by Cyanide released only ¼ lb leaves per 100 lb / horse is usually fatal. Choke Cherry is a common cause of acute death for pastured animals. In case of ingestion, call your vet immediately.

Oak (*Quercus* species). Oak trees in horse pastures should not be cut down, but branches should be kept out of reach of horses (i.e. trimmed above their reach). Young or small oak trees should be fenced for protection. Horses should be fenced out of areas where wilted oak leaves are/or acorns are plentiful. Wilted leaves can be a result of fall leaf shed, frost, and/or wind/storm damage.

Prussic acid poisoning is caused by poison called cyanide that can be produced in several types of plants under certain growing conditions. All species of farm animals may be affected with this acute poisoning. The plants most commonly involved in prussic acid poisoning are black cherry, choke cherry and pin cherry. There are some grasses that contain Prussic acid too that are Johnsongrass, sundangrass, common sorghum, arrowgrass. Johnsongrass is the most toxic of the sorghums and commonly causes poisoning when subjected to frost or drought conditions. Very young, rapidly growing plants also are more likely to produce the poison. Feeding or grazing of these forages should be delayed until they are more mature. Feeding forages following heavy nitrogen fertilization, plant injury by trampling or stunting of plant growth due to adverse weather should be avoided. If large amounts of forages containing prussic acid are eaten, death can occur within a few minutes. Excess salivation, difficult breathing, muscle tremors and rapid heart rate all signal the onset of prussic acid poisoning. Shortly after these symptoms are seen the animal may go down and death will likely occur due to respiratory paralysis. Animals that live one to two hours after the onset of these signs will usually recover.

When feeding horses forages there are a few things to keep in mind. There are things that can produce toxins in forages that can make your horse sick or cause death. Learn to recognize clinical signs, and understand climatic conditions that may cause plants to be affected. Buy feeds and hays from reputable dealers and lab test suspicious feed. And do not try short cuts.

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