

TOP 5 TREES poisonous to large animals

Trees provide shelter, shade and wind breaks for large animals, but they are also a contributing cause of illness in cows, horses and other large animals. Droughts and storms resulting in fallen branches as well as animals' curiosity or boredom may result in their consumption. Watch animals pastured close to these trees and prevent access, if you can.

1. Red maple (*Acer rubrum*)

The dry or wilted leaves of red maple trees are toxic for up to four weeks after they fall. Leaves in pastures after storms are a major cause of poisoning.

Red maple trees are commonly found in the northern and eastern parts of the United States. Horses ingesting 1 to 3 lb of dry or wilted leaves/450 kg of body weight may show clinical signs within a day.



2. Oak (*Quercus species*)

Oak trees, well distributed throughout the eastern half of the United States, are poisonous to all large animal species. Oak poisoning occurs most often in cows and calves and less so in sheep and horses. Goats have tannin-binding proteins in their saliva that allow them to tolerate higher amounts than cows and sheep. Tasty green buds in the spring and green or sprouted acorns in the fall are sources of the toxin; the tree's toxicity does not decrease with drying or freezing. Poisoning is associated with the ingestion of large amounts of buds or young leaves and acorns over a two- to three-day period.



4. Chokecherry (*Prunus virginiana*)

Chokecherry trees, along with other *Prunus* species (wild cherry, apricots, peaches and cherry laurel), are often found adjacent to pastures as windbreaks or ornamental trees or shrubs. Members of this group pose a deadly hazard to all ruminants, horses and swine, and sudden death is often the first sign of chokecherry exposure. The toxins are found in the leaves and seeds of the plants but not in the fresh fruit. Ruminants are more sensitive because of the rapid break down and absorption of cyanide by the rumen. The most common clinical sign is sudden death within minutes to a few hours after ingestion. Most often animals are just found dead in the field, but tremors and twitching progressing to prolonged seizures and death have been observed. These trees should not be planted in or near pastures, and any existing trees or shrubs should be removed. Trimmings should not be fed or disposed of in a pasture where animals have access to them

3. Box elder (*Acer negundo*)

Box elder trees are widespread throughout North America and found in and surrounding many pastures. The seeds pose a serious and often fatal threat to horses. The toxic dose is not yet well-defined, but ingestion of as few as 165 seeds could cause toxicosis. Common risk factors for poisoning not only include the presence of box elder trees within or near pastures, but also overgrazed and sparse pastures, little supplemental feeding of hay or grain and prolonged turnout time. There is no treatment; horses should not be grazed on pastures with box elder trees.



5. Black walnut (*Juglans nigra*)

Black walnut trees are commonly found in the eastern half of the United States, and the wood can be prized for woodworking potential. However, shavings made from black walnut wood and used as bedding for horses are considered poisonous. Bedding contaminated with 20 percent or more of black walnut shavings has been shown to cause clinical signs. Aged or old wood shavings are both toxic, but shavings exposed to air for more than a month are less harmful. Stocking up and early signs of laminitis (shifting legs, warm hoof walls, digital pulses) appear within 24 hours of exposure to bedding. They are generally reversible if the horse is removed from the bedding at this point. Bedding should always be purchased from a reputable dealer knowledgeable in horse husbandry.

