An_Hand_Ep 157_221101

Common Trees that are Poisonous to Large Animals

Our topics for this week are:

- **Common poisonous trees for large animals**
- **Predisposing conditions for tree poisoning**
- **Species at higher risk for tree poisoning**

Trees provide shade and shelter from the wind to large animals as well as beneficial mental stimulation visually and by movement barriers. However, during droughts and as a result of storms stripping leaves or breaking limbs, large animals may eat leaves and bark of trees, some of which are poisonous to large animals. We will talk about 5 of these today.

Red Maple Poisoning

Red maple trees are common in midwestern and eastern states of the U.S. Dried leaves of red maple trees are poisonous for up to a month after they have fallen from a tree. Fresh green leaves are not a problem. Following a wind storm, especially in the fall, large amounts of dry leaves may be able to be consumed. Only 1 to 3 pounds of leaves can poison an adult horse. The poisonous agent destroys the horse's red blood cells causing anemia and brown or red urine. Colts or adult horses that have limited access to hay are at higher risk of poisoning. Signs of poisoning appear within 5 days of consumption of the dried leaves. There is no specific antidote. Treatment is supportive, including blood transfusions in severe cases. Prevention involves removing horses from areas that might accumulate dry leaves on the ground or removing red maple trees from areas that horses will be contained.

Oak Poisoning

Oak trees are found throughout the midwest and eastern forests of the U.S. Oak poisoning is most common in spring from young leafs or in the fall from bark or green acorns. Access to these is increased following wind storms and fallen limbs or trees. Cattle, sheep, and occasionally horses are most often affected. Goats are much less susceptible. Oak poisons affect the digestive system, liver, and kidneys. Signs include digestive problems, lack of appetite, and dark urine. Signs appear within 7 days of ingestion. There is no antidote. If less than half the ingested roughage is oak, the animal may survive. If more than half of their ingested roughage is oak over 2 to 3 days, death will probably result within 2 weeks of showing signs of poisoning.

Prevention of oak poisoning involves keeping large animals out of pastures with oak trees during spring and fall, especially if storms and fallen trees occur following a drought.

Another form of oak poisoning does not involve trees. Shrub oak called shinnery oak occurs in the southwestern U.S. is short, less than 3 feet tall, and easily grazed on as alternative food for ruminants during droughts. It is a common cause for oak poisoning in the southwest mountain areas.

Box Elder Poisoning

Box elder trees, a form of maple tree, occur throughout the U.S. Ingestion of 200 or more seeds are poisonous to horses. Seeds fall in September and October. The signs are referred to as seasonal pasture myopathy and include muscle weakness and tremors. The urine may become dark due to muscle damage. The heart can be affected leading to rapid or irregular heart beats. There is no antidote. Prevention involves ridding all horse pastures of box elder trees.

Chokecherry Poisoning

Western chokecherry trees cause poisoning in large animals. They grow in mountainous areas of the southwestern U.S. along streams with alders, poplar, and willow trees. Chokecherry bark and seeds are poisonous to all large animals (cattle, small ruminants, swine, and horses). Chokecherry contains cyanide. Ruminants are the most susceptible because chokecherry bark or seeds breakdown rapidly in the rumen, releasing cyanide. The most common sign of poisoning is sudden death within a few hours after ingestion. Attempted treatment is generally not feasible. No large animals should graze in pastures with chokecherry trees.

Black Walnut Poisoning

Black walnut trees grow in the eastern and midwestern U.S. They grow in moist, well-drained areas near streams or rivers. If more than 20% of bedding for horses contains shavings from black walnut trees, laminitis and leg swelling can result in 24 hours from first exposure. Although the poison is present in the bark, nuts, and leaves and can be ingested, most horses are poisoned by skin exposure to black walnut shavings in bedding. Treatment is to immediately remove the horse from the shavings. Prevention requires close vigilance for walnut shavings in horse bedding.

If you have comments or you're interested in particular animal handling subjects contact us at CBC@BetterAnimalHandling.com

Now let's recap the key points to remember from today's episode:

1. **Drought and/or insufficient roughage predisposes large animals to tree poisonings**
2. **Wind storms can increase the risk of tree poisonings**
3. **No antidote exists for most tree poisonings**

More information on animal handling can be found in my book, ***Animal Handling and Physical Restraint***, published by CRC Press and available on Amazon and from many other fine book

supply sources. My new spiral-bound handbook, ***Concise Textbook of Small Animal Handling*** was recently published and available from all major science book supply sources.

Additional information is provided at: www.betteranimalhandling.com . This website has more than 150 past podcasts with notes on handling of dogs, cats, other small mammals, birds, reptiles, horses, cattle, small ruminants, swine, and poultry.

Don't forget, serious injury or death can result from handling and restraining some animals. Safe and effective handling and restraint requires experience and continual practice. Acquisition of the needed skills should be under the supervision of an experienced animal handler.