K-STATE Research and Extension | Meadowlark District

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Beware of the Hazards of Plants to Livestock

Traffic in the Extension office tends to pick up in spring and summer, with folks bringing in a plant for identification or problem diagnosis. Often, we are asked to identify plants that cause problems of toxicity to livestock, pets, and people. There are numerous plants that can cause a wide range of problems from minor discomfort to death. The Extension office has several good resources that deal with toxic plants. If concerns arise, please feel free to contact us for help. Animals that spend time in corrals, marginal areas like ditches/waterways or even pastures are potentially at risk of eating toxic forages. Summertime, with its high temperatures, varied rainfall, and agricultural chemical applications, can heighten the risks, as they all can change the toxicity levels of plants. Following is a short list of the more common midwestern plants that can be hazardous to livestock if consumed or touched.

Poison Hemlock comes to the top of the list as it is abundant, toxic to humans, birds, cattle, horses, sheep, goats, pigs and other wildlife. Although livestock rarely eat hemlock because of its strong odor, they will eat it if no other forage is available or if it is in hay or silage. Salivation, abdominal pain, muscle tremors, and lack of coordination are the first signs. If enough is consumed symptoms become, respiratory paralysis, coma, and death. Poison hemlock can cause abnormal fetal development if eaten by pregnant cows at 40-70 days of gestation.

Another problem hemlock is Water Hemlock as it has a toxin concentrated in its tuberous roots. The roots of water hemlock are always highly poisonous, and livestock that consume the roots usually die. In the spring, the emerging plant is the most toxic. The mature plant, in late summer and the dry stems have minimal toxicity to cattle.

Pigweeds and Johnsongrass are notorious nitrate accumulators, typically found in cultivated and disrupted soils along roadsides and waste areas. Pigweeds and Johnsongrass are also frequently found in and around corrals and other animal enclosures. When high nitrate plants are consumed, the blood becomes a chocolate color because it can't move oxygen from the lungs to the rest of the body and animals can abort, become non-ambulatory and possibly die.

Plants in the Bean family like Lupins, Loco and Yellow Sweetclover can cause issues. Lupins can kill sheep and may cause birth defects when consumed by pregnant cows. Lupin and Loco generally are more often found in the western great plains. Moldy sweetclover hay is the issue as coumarin is converted to dicoumarol during heating/spoilage and causes internal bleeding. Animals consuming the green plant will typically have no issues with sweetclover.

The Nightshade family is another group of plants that livestock producers need to be on the look out for. Jimsonweed, Black nightshade and Horsenettle contain poisonous alkaloids in all parts of the plant, but berries/seeds tend to be most problematic. Nightshades have evidence of poisoning all classes of livestock, birds and children.

Hairy vetch can be a beneficial legume that establishes along roadsides, waste areas and in croplands. Hairy vetch poisoning in cattle and horses is a hypersensitivity reaction that activates the animal's immune system response. Hairy vetch poisoning is debated and variable, but when it occurs it is most often when the plant is near maturity and constitutes a major part of the diet of cattle and horses.

This isn't an exhaustive list of problematic plants, but highlights some of the more common issues. K-State's publication MF3244 Grazing Management: Toxic Plants gives additional information about a wide range of problem plants.