

# Deadly Forages

Animals that spend time in corrals or pastures are at risk of eating toxic forages. High summer temperatures, too much or not enough rainfall, and ag chemical applications can heighten the risks by changing toxicity levels of plants.

Frederick Oehme, professor of toxicology in the College of Veterinary Medicine at Kansas State University (K-State), outlines common Midwestern plants that can be hazardous to livestock if consumed or touched.

## Poison hemlock

“Livestock rarely eat hemlock because of its strong odor, but they will if no other forage is available or if it is in hay or silage,” Oehme says.

Signs of poisoning develop within an hour of consumption. Salivation, abdominal pain, muscle tremors and lack of coordination are the first signs. They can be followed by breathing difficulty,

dilated pupils, weak pulse, and frequent urination and defecation. If the animal has eaten enough poison hemlock, respiratory paralysis, coma without convulsions and, in some cases, death can occur.

Poison hemlock can cause abnormal fetal development if it's eaten by pregnant cows between Day 40 and Day 70 of gestation.

“If poison hemlock has been recently consumed, saline cathartics and activated charcoal help to remove the plant from the gastrointestinal tract,” Oehme says. “Destroying the plants by mowing or with herbicides before the seed stage reduces the risk of hemlock becoming an invasive weed and a problem to livestock.”

## Water hemlock

The toxin of this plant is concentrated in its tuberous roots, but the entire plant can be toxic. “The roots of water hemlock are highly poisonous at all times, and livestock that consume the roots usually die,” Oehme says.

The plant is most toxic as it emerges in spring. By late summer the mature plant and the dry stems have minimal toxicity to cattle.

This neurotoxin is capable of rapid onset of muscle tremors and violent convulsions. Death often occurs 2-3 hours after consumption of a lethal dose, but it can occur as soon as 90 minutes (min.) after consumption.

“When possible, early treatment of water hemlock poisoning should consist of heavy sedation with sodium pentobarbital to reduce the severity of convulsions. Laxatives may also help remove the plant from the digestive system,” Oehme says.

## Hairy vetch

This weed establishes itself in many areas, especially along roadsides, waste areas and in croplands. What makes this legume toxic has not been determined.

“Hairy vetch poisoning in cattle and horses is suggestive of a hypersensitivity reaction induced by a foreign substance that activates the immune system response. Hairy vetch poisoning occurs most often when the plant is near maturity and forms a major part of the diet of cattle and horses,” he says.

Not all animals are susceptible to this disease. It is more prevalent in cattle that are more than 3 years old. Hairy vetch poisoning is reported in many breeds of cattle, but is more common in Angus and Holsteins. It is characterized by itchy skin, weight loss, conjunctivitis and diarrhea.

For more information, visit the K-State Veterinary Quarterly newsletter on the Web at [www.oznet.ksu.edu/dp\\_ansi/nletter/vq/KVQsum04.pdf](http://www.oznet.ksu.edu/dp_ansi/nletter/vq/KVQsum04.pdf).



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