Poisonous Plants In Pastures

by Carl S. Hoveland
Crop and Soil Sciences Department, University of Georgia

Pastures often have weedy shrubs and trees which contain toxic compounds which can be harmful to livestock. Normally, cattle have the good sense to avoid eating them. As long as there are adequate amounts of good quality forage in a pasture, these poisonous plants are no problem.

Reports of poisoning often increase in late summer and autumn. Drought results in short pastures, and hungry animals may eat plants they would otherwise avoid. Drought or frost may increase the amount of toxic material in certain potentially toxic plants. In addition, some plants may become attractive to livestock during certain stages of growth, after a herbicide application, or when animals have access to wilted leaves of plants which have been cut or blown down.

Some common poisonous plants in pastures

Numerous wild plants found in pastures can be toxic to cattle, some causing only mild symptoms while others result in death. They include plants such as black locust, buckeye or horse chestnut, buttercup, castor bean, crotalaria, mountain laurel, oak, oleander, perilla mint, yellow jessamine, and Johnson grass. The toxic principles responsible include glycosides, alkaloids, resins, and saponins. Some of the more common poisonous plants in Georgia pastures include:

1. Bracken fern. Found mainly in the Coastal Plain and drier upland sites in the Piedmont. Cattle symptoms are loud breathing, bloody feces, bleeding from all body openings, convulsions, and death.

2. Jimsonweed. Found throughout the state but especially in the Coastal Plain. Symptoms are widely dilated pupils of eyes, slow breathing, intense thirst, frequent urination, convulsions, and death. Cows can be poisoned by consuming less than one pound of the green plant.

3. Nightshades and horse nettle. Found throughout the state. The berries are the most toxic part and are more toxic when they have matured (yellow berries on horse nettle and black on nightshade). Symptoms are excessive salivation, drowsiness, trembling, diarrhea, dilation of eye pupils, paralysis, and death.

4. Pokeweed. Common throughout the state. Symptoms are severe gastroenteritis, cramping, diarrhea, convulsions, and sometimes death. In most cases, animals recover within two days.

5. Black cherry and cherry laurel. Common in all regions of Georgia. The toxic principle is prussic acid (similar to that in sorghum-sudan hybrids or Johnson grass) which develops during drought or after frost. It also occurs in leaves of trees recently cut or blown down. Symptoms are difficult breathing, staggering, convulsions, and rapid death (often within one hour of consuming the leaves).

Reducing losses from poisonous plants

When poisoning occurs, animals may recover if treatment can be done in time by a veterinarian. However, the best approach is taking steps to prevent the problems of toxic plants. Several things can be done that will greatly reduce losses to livestock:

1. Provide hay to cattle during drought when pastures are short so animals will not eat poisonous plants. Poisonous plants are avoided by cattle during periods of good pasture growth so these weeds are large and often succulent during drought, making them attractive to hungry animals.

2. Learn to recognize common poisonous plants and eliminate them from areas where cattle are kept.

3. Use fences to exclude cattle from unimproved areas which may contain poisonous plants.

4. Do not cut branches of potentially toxic plants such as black cherry and leave them in the pasture.