

Frost A Danger For Grazing Livestock

URBANA, ILL.

With temperatures predicted in the mid to low 30's throughout Illinois, livestock producers should be cautious when grazing cattle on crops in the sorghum family, according to Dave Fischer, University of Illinois Extension dairy educator.

"Sudangrass, sorghum-sundangrass hybrids, and grain/forage sorghum are members of the sorghum family and, after a frost, will produce a glucoside called dhurrin that breaks down to release a toxin called prussic acid. Intake of high levels may be lethal to cattle," Fischer said.

Clinical signs of prussic acid poisoning include rapid pulse, labored breathing and eventual suffocation. Livestock producers should move cattle away from grazing these forages for several days following a frost.

"If the crop was safe to graze prior to frost it will again be safe to graze 3 to 5 days following the frost. Remember, sudangrass should be greater than 18 inches tall or sorghum-sudangrass greater than 24 inches before it is safe to graze under any conditions," he said.

Baling or ensiling sudangrass, sorghum-sundangrass hybrids, and grain sorghum immediately following or shortly after a frost is safe because the prussic acid will breakdown and dissipate during the harvesting process.

"But wait 7 - 10 days after harvesting those crops to make hay or silage and allow the feed to cure or ferment in the silo or bale for 2-3 weeks before

feeding," Fischer said.

Grazing alfalfa, clover, and other perennial forages are not a concern following a frost because they do not produce toxins and can be grazed or baled and fed to livestock even after a frost. The only caution will perhaps be a slight chance for ruminants to bloat if grazing pure legume pastures and should be offered other feedstuffs to avoid over-eating the succulent pasture.

"Harvesting alfalfa after a killing frost is acceptable only when the plant is going into dormancy. A killing or dormant frost occurs when temperatures reach 28 degrees Fahrenheit or lower over night or 4 hours or more," Fischer said.

If the plants are harvested pre-dormancy and re-growth occurs 1-2 weeks before going dormant, significant plant damage can occur during overwintering due to reduced food reserves in the plant to survive the cold temperatures. If the forage is not needed, it is advisable to leave the crop uncut for through winter.

"Immature soybeans that are caught by the frost due to late plantings can be harvested for forage if the crop is free from applied pesticides. The soybean forage should be cut, wilted, and harvested at similar moisture levels as would be used for alfalfa or other legumes. It is best to begin harvest no later than the than when the bottom leaves turn yellow and begin to drop off. Since late fall drying conditions are very marginal, chopping as silage is preferred over baling," Fischer said. Δ



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