

# Precautions For Grazing Frost-Damaged Forages

URBANA, ILL.

**W**ith the onset of colder weather, the potential for animal death due to grazing frost-damaged forages increases. Careful attention to local pasture and environmental conditions will greatly reduce this risk.

“The major concern is the risk of prussic acid (hydrogen cyanide) poisoning of animals that are grazing sorghum, sudangrass, or sorghum-sudan forages,” explains Robert Bellm, crop systems educator with University of Illinois Extension. “When sorghum or sudangrass is damaged by frost, large amounts of prussic acid are rapidly released. So, avoid grazing these pastures for at least five days to allow the plant to dry and prussic acid to dissipate from plant tissues.”

Symptoms of prussic acid poisoning include excessive salivation, difficult breathing, staggering, convulsions, and collapse. The animal dies rapidly, often within minutes, due to asphyxiation.

Bellm offers this advice to avoid prussic acid poisoning:

- Do not allow hungry cattle to graze where prussic acid may be a problem. Feeding grain

or hay before turning animals to pasture will reduce rapid intake and dilute the amount of prussic acid consumed. Animals do not become immune to prussic acid, but they can detoxify low levels.

- Do not allow animals to graze prussic acid containing forages after a frost until the plants have dried for at least five days.

- Ensile plants with high prussic acid concentrations.

- Have suspect forages analyzed before feeding to determine prussic acid content.

“There is also some concern with grazing legume forages such as alfalfa and red clover after a frost until it is well wilted or dried,” says Bellm. “Although there is no known toxic compound produced in these forages, cattle tend to have diarrhea and bloat responses when grazing freshly frosted legumes.”

Problems with legumes can be avoided by holding cattle off of the pasture for a few hours until the forage dries and wilts. Feeding dry hay to the animals before turning them onto the pasture will also reduce the rapid intake of easily digested forage, and reduce bloat potential. Δ