

## **BE CAREFUL WITH SORGHUMS THIS TIME OF YEAR**

*Dr. Gary Bates, Director  
UT Beef and Forage Center*

The cool temperatures of fall are rapidly approaching. The cool weather is usually good for grasses like tall fescue and orchardgrass. But sorghums used for forage can be toxic after a frost. The frost causes the release of prussic acid, or cyanide. Small amounts of prussic acid can be highly toxic to cattle. There are several things to know in order to prevent prussic acid poisoning in your livestock.

**Which species of grass have this problem?** Forages in the *Sorghum* genus have this problem. The three primary forages that we use in this genus are sorghum x sudangrass hybrids, johnsongrass and forage sorghums. These are all warm-season grass species. Grasses like tall fescue, orchardgrass, and annual ryegrass do not have the potential to produce prussic acid. Other warm-season species such as bermudagrass, crabgrass, teffgrass and pearl millet also do not have this problem.

**What causes the problem?** Leaves of these plants contain chemicals called glycosides naturally occurring in the cells. When the plants are stressed, these chemicals break down to release cyanide. Usually the stress we think of is frost, but it can also occur if the plants are drought stressed.

**Does prussic acid break down naturally?** The prussic acid will break down over the course of 10 days to two weeks. Because of this, there is no danger of having prussic acid in sorghum x sudangrass or johnsongrass if it has been dried enough to make hay. Waiting two week before feeding will prevent any problem.

**How can I avoid this problem?** The best thing to do is avoid grazing sorghums when there is the potential of frost. As we move into fall, it is best to cut these forage species for hay and avoid any risk of prussic acid poisoning through grazing. If you decide to grazing, wait to graze all of this forage until it is totally brown and dried.

**What about tall fescue fields with patches of johnsongrass?** This is often a difficult situation. If there is plenty of tall fescue for cattle to eat, they will avoid consuming johnsongrass in the fall because the tall fescue is much more palatable. Many fields across the southeast have small patches of johnsongrass scattered throughout. But make sure there is plenty of tall fescue growth for cattle to graze. If the johnsongrass begins to cover more than 25-30 percent of the ground,

you may want to stockpile this field and graze it after the johnsongrass is totally brown and dead.  
This will prevent any prussic acid danger.