

**MARTY MORGAN, COOKE COUNTY AG AGENT
TEXAS A&M AGRILIFE EXTENSION SERVICE-**



Prussic Acid Poisoning

There are times of year that producers need to be concerned about Prussic acid poisoning in cattle on pastures or in hay put up. Prussic acid can occur after stressful conditions such as frost, drought, extended periods of cloudiness or exposure to a herbicide that kills grasses. Any condition that causes stress to the grass has a potential of producing this poison that can kill your cattle. It's not a common occurrence, but poisonous prussic acids can form in everything from Bermuda, ryegrass, alfalfa etc... but is most common in Sorghum's and Sorghum Grasses like Johnsongrass and Sudan. These plants can produce toxic levels of prussic acid, especially when stressed during cold temperatures and droughts. Cyanide-producing compounds in living plant cells are converted to prussic acid when cells are crushed or otherwise ruptured. The prussic acid potential of plants is affected by species and variety, weather, soil fertility and stage of plant growth. Prussic acid is one of the most potent toxins in nature. As ruminants like cows and goats consume plant materials containing cyanide-producing compounds, prussic acid is liberated in the rumen, absorbed into the bloodstream and carried to body tissues where it interferes with oxygen usage. When lethal amounts are consumed, animals can die without visible symptoms of poisoning, but bloating is a common symptom seen. Symptoms from smaller amounts ingested include labored breathing, irregular pulse, frothing at the mouth and staggering.

If you are baling Sudan, Sorghums or pastures with Johnsongrass, allow hay to cure properly to remove the danger of prussic acid poisoning from hay containing these forages. If grazing, watch cattle closely if you have to leave them exposed to Sudans or Johnsongrass. Of course, you can't save a dead animal, but those displaying symptoms prior to death can be treated. A proprietary sodium nitrite-sodium thiosulfate combination can be administered and repeated once if necessary. It must be injected intravenously and very slowly. The dosage and method are critical, so keep a veterinarian's emergency phone number close by. Most animals that live two hours after onset of symptoms are likely to recover, it just depends on how big of dose they get of the Prussic Acid.

If you have any questions please contact me at marty.morgan@ag.tamu.edu or call 940-668-5412