

OSU EXTENSION

Prussic acid poisoning

It was discovered in the early 1900s that under certain conditions, sorghums are capable of releasing hydrocyanic acid, more commonly called prussic acid. It is most often associated with Johnsongrass. Prussic acid when ingested by cattle, is quickly absorbed into the blood stream, and blocks the animal's cells from utilizing oxygen. Thus the animal dies from asphyxiation at the cellular level. Animals affected by prussic acid poisoning exhibit a characteristic bright red blood just prior to and during death.

Lush young regrowth of sorghum plants are prone to accumulate prussic acid especially when the plants are stressed such as drought or freeze damage. Light frosts that stress the plant but do not kill it, are often associated with prussic acid poisonings. Producers should avoid grazing fields with sorghum type plants following light frost. The risk of prussic acid poisoning will be reduced,



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if grazing is delayed until at least one week after a "killing freeze". As the plants die and the cell walls rupture, the hydrocyanic acid is released as a gas, and the amount is greatly reduced in the plants. One can never be absolutely certain that Johnsongrass or a field of sorghum is 100% safe to graze.

Cattle that must be grazed on sorghum pastures during this time of year should be fed another

type of hay before turning in on the field, and should be watched closely for the first few hours after turn in. If signs of labored breathing, such as would be found in asphyxiation, are noted, cattle should be removed immediately. Call your local veterinarian for immediate help for those animals that are affected. For more information on prussic acid, contact your local OSU Extension Office.

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