



I've got a lot of Johnsongrass (or Sorghum, sudangrass, etc.) in my pasture/hayfield and we just got a frost. What should I do about prussic acid poisoning?

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Like other members of the Sorghum family, Johnsongrass is a good forage crop, but it can have high amounts of prussic acid (cyanide). Sorghums and related species readily accumulate these compounds. These various cyanogenic compounds accumulate in epidermal cells (outer tissue) of the plant, while the enzymes which enable prussic acid production are located in the mesophyll cells (leaf tissue). Anything that causes the plant cell to rupture allowing the cyanogenic compound and the enzyme to combine will produce prussic acid. Plant cells can be ruptured by cutting, wilting (drought), freezing, crushing, etc. The most common event in Georgia where this becomes problematic is immediately following a hard frost. To be safe, avoid grazing or haying all members of the Sorghum family (commonly, Johnsongrass, Sorghum, Sudangrass, sudex, etc.) after a frost or hard freeze. In practice, of course, this is not always practical. One can reduce their risk by at least avoiding grazing or haying for several days (2 weeks) after a hard freeze. This is usually (but not always) a good way to avoid prussic acid poisoning because this compound is volatile and it will dissipate in time. In fact, prussic acid poisoning is rarely a problem in well-cured hay, particularly when it has been stored for more than 1 month.

For more information, check out the following links:

- <http://interests.caes.uga.edu/drought/articles/prussic.htm>
- http://www.uaex.edu/Other_Areas/publications/PDF/FSA-3069.pdf

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