BEWARE OF GRAZING JOHNSONGRASS WITH FROST APPROACHING!

PRUSSIC ACID

Prussic Acid: Naturally occurring glycosides may form prussic acid, also called hydrocyanic acid or HCN, which can build up to toxic levels in a number of plants including Johnsongrass, sorghum, sudangrass, sorghum-sudan hybrids, and wild cherry. Pearl millet does not produce prussic acid. Prussic acid is most likely to build up to dangerous levels immediately after a killing frost. Also, tender young growth occurring immediately after a long drought can be potentially toxic. Young, tender fast-growing plants are more likely to be toxic than older, more mature plants.

Prussic acid causes death by interfering with the oxygen-transferring ability of the red blood cells, causing animals to suffocate. Symptoms include excessive salivation, rapid breathing, and muscle spasms, and may occur within 10 to 15 minutes after the animal consumes prussic acid-containing forage. Animals may stagger, collapse, and eventually die.

Prussic acid and nitrate poisoning are not the same. Toxic levels of nitrates result from heavy N fertilization followed by severe drought stress. Unlike nitrates, prussic acid deteriorates with time. Forage with high levels of prussic acid which is ensiled is usually safe to feed after the ensiling process is completed within 3 weeks after silo fill. Hay which has dried enough to be safely baled (18 to 20 percent moisture) will not contain toxic levels of prussic acid. Standing plants killed by frost are normally safe after about one week. However, in some instances only plants in certain portions of a field are initially killed and subsequent frosts create danger spots in other areas.

Prussic Acid Poisoning can be reduced by:
1. Grazing sorghum or sorghum cross plants only when they are at least 15 inches tall.
2. Do not graze plants during and shortly after drought periods when growth is severely reduced.
3. Do not graze wilted plants or plants with young tillers.

4. Do not graze for two weeks after a non-killing frost.
5. Do not graze after a killing frost until plant material is dry (the toxin is usually dissipated within 48 hours).
6. Do not graze at night when frost is likely.
7. Delay feeding silage 6 to 8 weeks following ensiling.
8. Do not allow access to wild cherry leaves whether they are wilted or not. After storms always check pastures for fallen limbs.
9. When in doubt DON’T.

Losses from Prussic Acid is mostly preventable when we understand the cause-effect-weather relationship and take necessary steps to prevent.