**Grazing Considerations**

1. Look closely at stand after a non-killing freeze for any new growth, including new tillers. New growth will have a higher concentration of HCN than mature plants. An early, light freeze may only kill or damage the top portion of the plant. Watch for any new growth, including tillers that might arise from the lower part of the plant.
2. New leaves have a higher concentration of HCN than older leaves and stalks; the grain has none. Cattle will selectively graze the new, lush leaves before the older leaves or the stalks, thus consuming portions of the plant that accumulate more HCN.
3. After a killing freeze, the plants should field cure (approximately 7 days) before allowing cattle to graze the forage. If cattle were grazing prior to the freeze, remove them and wait for the forage to cure before returning them to the pasture.
4. In grain sorghum following harvest, sorghum stubble is typically safe for grazing. However, unless the plants have been killed by a hard freeze or with a herbicide, the stubble should be managed just like forage sorghum or any other sorghum that was not harvested for grain.

**Animal Management**

1. Animals do not adapt to HCN levels or become immune to it, but they can detoxify low levels of HCN.
2. Hungry and stressed animals are the most susceptible to HCN. As a result, feed hay or grain prior to turning animals out to graze. This will dilute and slow the intake of grazed forage.
3. Ruminant animals (cattle, sheep, goats) are at a greater risk of prussic acid poisoning than non-ruminants (horses and swine). In ruminant animals, the cud-chewing action, neutral pH of the rumen, and rumen microbial enzymatic activity aid in and create an ideal environment for the release of HCN in the rumen which is then quickly absorbed into the blood. On the other hand, non-ruminants are less susceptible to prussic acid poisoning because the enzymes that release HCN are destroyed by the lower pH in the monogastric stomach.

**Harvesting Considerations**

1. Prussic acid poisoning is more of a concern when grazing sorghum than when harvested for hay or silage because HCN will dissipate in harvested forages if properly ensiled/cured.
2. **Sorghum silage** - If HCN levels are high at the time of harvest, wait at least four weeks before feeding the forage. The HCN will volatilize during the fermentation and feed mixing process.
3. **Hay** - The curing process for hay will allow the HCN to dissipate as a gas, reducing the HCN content to safe levels.
4. Properly harvested forages can be mixed with other grains and forages with low prussic acid to achieve a safe concentration in the total diet.

**Testing for Prussic Acid**

1. If high prussic acid concentrations are suspected prior to grazing or at harvest, forage should be tested before grazing or feeding. There are quantitative and qualitative tests available to learn more about the potential for prussic acid poisoning in a particular forage.
2. If HCN levels exceed 200 ppm on an ‘as-is’ basis or 500 ppm on a dry basis, the forage should be considered potentially toxic and should not be fed as the only source of feed to animals.
3. Contact the forage lab that will conduct the HCN analysis prior to sending in samples so that proper handling procedures can be followed.

\*info obtained from [www.sorghumcheckoff.com](http://www.sorghumcheckoff.com)