

## Potential Freeze and Prussic Acid

This is an excellent reminder and information from Dr. McCollum as many of you will be looking at a killing freeze in the near future.

1. A freeze does not increase the amount of prussic acid synthesized by the plant. So, what is in the plant the day after the freeze is the same as what was in the plant the day before the freeze. The potential toxicity (amount of cyanide/prussic acid that can be released from the plant) does not increase in response to the freeze. If further explanation is required, feel free to call.
2. So, if cattle are already grazing on a field and there have been no losses prior to the freeze, then the likelihood of increased loss as a result of the freeze is very low.
3. If a field has not been grazed, in other words it is untested because there have been no cattle on the field, then it may be wise to hold off for 2-3 days after the freeze.
  - Dry, dead tissue on plants in the field is of no concern.
  - If the forage on the field is tall and mature, the risk of a toxicity is low to none.
  - If the forage on the field is short and still green (i.e. regrowth after haying or grazing, or moisture stressed), the risk is higher because of the stage of maturity of the forage.
4. If the freeze is not hard enough to kill the entire plant and temperatures warm back up, the plant may begin to produce new tillers from the base. These new tillers can be very toxic. If conditions warm back up, watch for new tillers and keep an eye on the cattle.