

Producer Questions on Prussic Acid and Nitrate Poisoning

Well after the last week's freezing weather I have received many calls with questions about Prussic Acid Poisoning. Hopefully this information will help answer most of those questions and give you some peace of mind you need to graze your cattle or put up Hay on suspect pastures or fields.

Question 1- I just cut my hayfield(or plan to cut it this week) so should I be concerned about Prussic Acid(PA)? The answer is **YES**, after a frost is the one of the most likely times for PA to be at dangerous levels. **BUT**, if you let your hay cure a little longer than normal(lay on the ground an extra 2-4 days with good weather) then the PA should dissipate from the plant and should not cause any problems. If you are concerned for customers that buy your hay tell them not to feed it right away but to let it set for 3 or 4 weeks to allow more time for PA to dissipate. Prussic Acid will eventually escape in the form of gas.

Question 2- Can I test standing forage or hay for Prussic Acid? The answer is **YES**, you may use the form that I have here at the office to send samples to our Texas A&M Vet Diagnostic Lab for testing at the rate of \$22 per sample. I called the lab today to get the most current information on price and handling of samples. **BUT**, remember that you must ship your sample to the lab so that they receive it within 24 hours in a sealed plastic bag or bottle in order to have any validity to the test. Once the hay or forage is taken it automatically starts dissipating so to get accurate results the test needs to be done as close to within 24 hours as possible. **DO NOT** send samples for Prussic Acid testing to the forage testing lab as they cannot perform this test.

Question 3- Can I graze cattle on pastures that have Johnson grass after the first frost or freeze? The answer is **NO**. It is best to wait about 2 weeks before letting cattle graze these pastures in order to give the Prussic Acid time to dissipate. Grazing immediately after a frost puts you at the highest risk.

Question 4- What about Nitrates? Although nitrate poisoning issues are usually associated with drought environmental conditions, other factors can contribute to this problem. Among these factors are either excessively low or high growing temperatures, cloudy days, or heavy fertilization. Forage crops that receive high nitrogen fertilization are more likely to contain high nitrate concentrations. According to experts a frost or freeze has no effect on Nitrates levels and the most common cause of nitrates in the Fall would be attributed to heavy fertilization on pastures. If you have fertilized heavy this fall then it might be worth your time to test it. Without a test you just don't know if you're at risk.

Question 5- What about testing for Nitrates?- If you want to test for nitrates then you must send samples to the Soil, Water and Forage Testing Laboratory, Department of Soil and Crop Sciences, Texas A&M AgriLife Extension Service. We have forms here at the office with pricing and instructions. The basic test costs \$12 per sample and includes protein, or you can do the \$21 per sample test which includes Nitrates, Protein and Energy(TDN). If you have put up some hay this fall then I recommend doing at least the basic test so you know your protein level and at the same time you get the peace of mind about whether your hay contains Nitrates. Knowing your protein level can save you money

We have a good publication called "Nitrates and Prussic Acid in Forages--Sampling, Testing and Management Strategies", that explains it well. If you would like a copy of it, need one of the forms to do testing, or have questions. Please come by our office or let me know and I can email both to you.

Marty Morgan, Cooke County Ag Agent

