OHIO STATE UNIVERSITY EXTENSION

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Soybean Cyst Testing

A couple of weeks ago, I wrote about the opportunity to test for Soybean Cyst Nematode. The opportunity for free testing is nearing the end. I recently read in the Kentucky Pest News about the issues with Soybean Cyst in Kentucky and they are urging people to test, too.

The following is the opening paragraph in the newsletter. If you would like to read the entire article with management practices google Kentucky Pest News or go to: https://kentuckypestnews.wordpress.com/

The soybean cyst nematode (SCN) causes greater annual yield losses in Kentucky than any other pathogen of soybean. The last time a formal survey was conducted by the University of Kentucky in 2006 and 2007, approximately 76% of soybean fields in the state were infested with SCN. Preliminary results from a new on-going SCN survey initiated in 2019 show that 84% of Kentucky fields are infested with SCN. Although above-ground symptoms (stunting and yellowing) caused by SCN can occasionally be observed, affected soybean plants generally appear to be healthy. Unfortunately, "healthy-looking" soybean plants that are infected by SCN can still have a 30% yield reduction.

Need for Forage Testing

I continue to harp on the need to forage test. This year the samples that I have seen are not better than last year's. Remember last year? Hopefully we do not see the wet and muddy conditions to the extent we saw last winter. If you need a reminder of last year, here is part of an article that Dr. Michelle Arnold wrote about the situation in Kentucky. Here is what Dr. Arnold shared. It includes information about where your Crude Protein and TDN needs to be on your forage test results to meet the needs of your cows. Without testing, most of us realize that our hay was not harvested this year at the peak of its nutritional value as feed. Most was over mature, some was baled after it was rained on, some may have been baled when it was not as dry as it should have been and may have some mold issues.

The body of the animal has several defenses against cold. The first is the hair coat which grows longer in winter and offers considerable help in conserving heat and repelling cold. Under winter conditions, if an animal's coat cover is wet and muddy, then energy requirements for maintenance can easily double, particularly if the animal is not protected from the wind. Energy from intake of hay that is adequate for maintenance in normal years is falling far short of the requirement this year. Cold conditions are not too difficult for cattle but when rain and wind are added, heat loss is multiplied several times by the effects of conduction and evaporation. Under these circumstances the "wind chill factor" referred to by the weatherman has real meaning to a cow. If producers are not supplementing cattle with adequate energy AND protein sources, hay of unknown nutritional quality often does not provide sufficient nutrition to meet the animal's basic requirements. This will result in depletion of body fat stores, followed by breakdown of muscle protein, and finally death due to insufficient nutrition.

Typically, near the end of most winters, both veterinary diagnostic laboratories in KY receive older beef cows for necropsy. These cows often are broken-mouthed or toothless due to their advanced age, are heavily pregnant or in peak milk production and in poor body condition (BCS 2-3). However, this winter, 'malnutrition' cases include young cows and pre-weaning/weaning age calves, indicating serious nutritional deficiencies in the feedstuffs, especially the hay produced last summer. The producer may first notice a cow getting weak in the rear end. Later she is found down and is unable to stand. Death follows within a day or two after going down. Multiple animals may die within a short period of time.

At necropsy, the pathologist finds a thin animal with no body fat stores but the rumen is full of bulky, dry forage material (poor quality hay). Even the small seam of fat normally found on the surface of the heart is gone, indicating the last storage area in the body for fat has been used up. Despite having had access to free choice hay, these cattle have died from starvation. Although hay may look and smell good, unless a producer has had the hay tested for nutritional content, he or she does not know the true feed value of that harvested forage. It is often difficult for producers to bring themselves to the realization that cattle can actually starve to death while consuming all the hay they can eat – especially if crude protein levels are in the 3-4% range, and TDN is <40% – as is not uncommon in some late-cut, overmature, rained-on hay. Inadequate crude protein in the hay (below 7-8%) means there is not enough nitrogen for the rumen microflora ("bugs") to do their job of breaking down fiber and starch for energy. Digestion slows down and cattle eat less hav because there is no room for more in the rumen. Cattle are expected to eat roughly 2.5% of their body weight in dry matter but this may fall to 1.5% on poor quality hay. Many producers purchase "protein tubs" varying from 16-30% protein to make up for any potential protein deficiencies but fail to address the severe lack of energy in the diet. In the last 60 days of gestation, an adult cow (1200 pounds eating 2% of her body weight) requires feedstuffs testing at least 54-56% TDN (energy) and 8-9% available crude protein while an adult beef cow in the first 60 days of lactation requires 59-60% TDN and 9-10.5% available crude protein.

So, as we head into the winter of 2019-2020, how good is your hay here in Adams County? A test will cost right at \$25 including shipping. I can tell you that I have seen test results with a TDN at 51%, that will not get it done without supplement. If you would like to read the entire article from Dr. Arnold go to www.thebeefblog.com and look under November 1.

Dates to Remember

- Nov. 14 First night for Estate Planning program at North Adams High School. Call 544-2339 to pre-register. The rest of the sessions will be held on December 18, January 16 and February 6. All start at 6:30 p.m.
- Nov. 18 Pesticide and Fertilizer Certification Exams for Private and Commercial Applicators at the Old Y Restaurant at noon. Remember for November the exam dates will change to the third Monday of the month due to Veterans Day falling on the second Monday.