

The Importance Of Forage Testing



By Dan Leiterman

The age old question of “How often should I test my forage?” has a different answer for every operation. Field sizes, crop varieties, harvest timing, and storage methods play an important role in determining forage testing needs. It is important to watch for

changes in forage quality by observing your cows. Dry matter is the one exception for testing needs, as this should be evaluated weekly. There are several low cost, on-farm testing options available to monitor the dry matter of forages, such as a Koster tester or a microwave.

There are a variety of labs and forage testing options available but the minimum key nutrients to test for are moisture, crude protein, starch, sugar, NEL, calcium, phosphorus, and potassium. Consult with your Crystal Creek® nutritionist for directions on these testing procedures.

Baled Hay

Baled hay typically can be tested by the crop and/or the field at the conclusion of harvest. Testing by early fall will allow each hay type to be dedicated to different cattle groups based on quality and inventory. For example; grassy, low potassium hay should be dedicated to dry cows, whereas higher quality hay would be dedicated to the milk cows. When harvest season is complete, review forage inventories as this is an important part of any nutrition program and will insure the right type of forage inventories are on hand for the herd’s different stages of lactation. When testing baled hay it is important to collect samples with a hay probe from at least six random bales per crop. Manual hay probes are available from Crystal Creek®. Consider purchasing a power tool driven probe if frequently testing high volumes of hay samples.

Silage

Haylage should be tested based on storage structure (silos, bags, or bunkers) when first

starting to feed from them. You should also test if you notice a change in your cow’s performance. Corn silage should be tested at the start of feeding and every three months thereafter, as the fermentation process will affect starch availability. This will also allow you to evaluate protein degradation and fermentation losses. When testing silages from a silo, run the unloader for several minutes and collect at least six handfuls of silage. Mix the samples in a pail and pull a composite sample for testing. If testing a bunker, pull six handfuls from six locations utilizing a crisscross pattern, mix in a five gallon pail and pull a composite sample from the pail.

Mycotoxins

In the previous newsletter article on mycotoxins and anti-nutritional trends, Dr. Goeser states the 2017 late summer corn crop in the Midwest is seeing less mold than previous years. It is important to note that regional weather patterns have a large impact on the mold and mycotoxins found in harvested grains. Unlike the Midwest this year, New York and Pennsylvania, in particular, are experiencing an increase in the mycotoxins found in their harvested crops. If you suspect the presence of molds and mycotoxins, additional testing can be done to establish a count. If significant counts are reported, you can have a species identification run to determine a remediation program if necessary. As with any sampling process, discovering whether or not your cattle have exposure to mycotoxins or molds is never 100% accurate. Error can come from both the size and scope of samples being tested. Watch for signs indicating that your herd is facing mycotoxin exposure such as:

1. Reduced dry matter intake
2. Lowered immune function
3. Reduced milk production
4. Lowered weight gain
5. Altered nutrient metabolism and absorption
6. Reproduction issues

If you observe any of these indicators consider taking steps to reduce the impact of mycotoxins. Crystal Creek® offers Fuse 207™ and Ultrasorb R as part of a remediation program for molds and mycotoxins. Fuse 207™ is to be fed at a rate of 1 to 2 ounces per head per day and provides a highly concentrated source of B-1, 3 glucans and polarized ions for livestock at risk of mold and/or mycotoxin exposure. Research shows that B-1, 3 glucans provide better natural blockers than non-polarized clay or charcoal based alternatives. Ultrasorb R is to be fed to ruminants at a rate of 10 to 30 grams per head per day. Use Ultrasorb R in addition to Fuse 207™ specifically when addressing difficult mycotoxins such as DON/vomitoxin.

Prevention Is Key

Ultimately, prevention is the key in maintaining forage quality. Steps can be taken to prevent degradation and reduction of dry matter loss through the use of proper inoculants. Crystal Creek® offers a full line of inoculants to assist with good management practices in reducing the negative effects of fermentation loss. Inoc-U-Lock™ is available in either liquid or dry forms depending on your application preference. Contact a Crystal Creek® nutritionist to learn more about evaluating your current forage management and sampling program and the impact it can have on your herd's performance.