Over the last year I have written extensively on the need to test forages to control the costs of grain supplementation and improve performance. While I have made this argument many times, I have not delved into the details one should test for or how to take a proper sample. With this in mind, I felt it prudent to cover proper forage testing in this month’s article.

**Collecting the sample:** In order to get the most accurate test results for each forage, a cumulative sample must be collected by pulling small samples from 5-10% of the bales in the group. This cumulative sample should fill a quart ziplock. In an ideal world, each small sample collected would be pulled using a core sampler on the end of a drill. A core sampler looks like a three foot long tube with serrated teeth on the end, and is attached to a drill. This sampler will cut the forage into short lengths and allow the operator to pull samples from the center of each bale. When using a core sampler, align the end of the sampler with the outside of the bale. Using the drill apply pressure to push the core sampler towards the center of the bale. You want to pull the sample against the grain of the bale. On a round bale this would mean pulling the sample from the outside of the roll where the net wrap or twine is located. When a core sampler is not available, a producer can pull samples by hand but it can be less representative of a cutting and more difficult to collect. When pulling a sample by hand, a larger cumulative sample must be collected (enough to fill half of a gallon ziplock). In this case it will be difficult to pull samples from the center of the bale without cutting the twine or wrap. As such samples must be collected by reaching into the soft side of a bale as deeply as you can to pull a sample that has not been sun bleached. If you are collecting samples by hand, be sure your hands are clean prior to the collection to prevent introducing foreign material into the sample.

**What to test for:** Any sample can be tested for a broad range of data. In most cases testing for crude protein, acid detergent fiber, neutral detergent fiber, relative feed value or relative feed quality, total digestible nutrients, net energy gain-maintenance and lactation, and a basic mineral package is sufficient. These analysis details will help you determine the overall quality of the forage, the likelihood of high or low willing intake, the mineral balance or imbalances, and the available energy for growth, maintenance, or lactation. Any analysis should be shared with your nutritionist so that any grain or mineral supplements purchased create a completely balanced diet with the forage you offer.

**Where to send the samples:** There are many labs both independent and government funded in the US that will test forages. It is often easiest to contact the local extension office, or feed cooperative to send the sample for testing though. These entities can also assist in selecting the proper testing package to get the results you need. If one can not get access to a lab through the extension office or feed cooperative, submitting the sample directly to the lab is possible. I personally use Dairyland Laboratories Inc., in Arcadia Wisconsin but there are many others throughout the US.

Testing is essential for every producer even if they do not currently realize its value. Hay quality directly impacts the amount of milk a doe will produce, how fast a kid will grow, and even how much grain must be fed. Good hay reduces the costs of grain supplementation while boosting overall performance while bad hay will do just the opposite. Remember; the quality of a forage can not be identified by look alone. Make sure you are testing each cutting of hay regardless of how small it may be and sharing these results with your nutritionist. Your goats and your pocketbook will thank you.