July 13, 2015 FOR IMMEDIATE RELEASE David Dugan OSU Extension Educator, Agriculture and Natural Resources Adams/Brown/Highland Counties Ohio Valley Extension Education Research Area

Forage Testing

Over the past few weeks I have touched on the issues we face with the weather's delay on harvesting the first cutting of much of the hay in Southern Ohio. The feed value is going to be low. The thought of some green undergrowth making it decent feed may costly. History has shown that the nutrient levels will be very low.

I have discussed the issue of testing forages. I have also discussed feeding hay to different groups of livestock based on nutrient needs. As an example, replacement heifers need better feed than mature cows. The need to supplement this winter is a given. The feed value in the hay will most likely not be enough for many producers to get cows through an average Ohio winter. As I have stated before, just a couple of years ago I had multiple veterinarians tell me that they had been on farms where producers had lost cows. The cows had most likely starved to death, not because they were not fed, but the feed was low quality. Cows can eat and be full, but the feed would be comparable to you or I eating nothing but the foods we typically eat when trying to drop a few pounds. We do not want our livestock dropping a few pounds.

Testing can be done for round bales with a bale probe. I have a probe in the Brown Co. Extension Office and it can be used or I can bring it out to your place. Several bales should be sampled to get a good sample of a particular set of bales. The test will cost less than a round bale of hay. Some feed suppliers may be willing to assist with hay sampling, too. For those selling hay, test results can be a great marketing point. High quality hay should be worth more money, shouldn't it?

OK, so we know that the quality may be low for much of our hay this year. Maybe I have convinced you that you should test your hay. Once it is tested, what do all of the numbers mean?

The Beef Blog on Monday had a post from Montana State University Extension Beef Specialist, Rachel Endocott that explains the numbers pretty well. The following is part of the information that may be helpful once you get the results from your samples.

As Fed – Values in the "As Fed" or "As Received" column include the moisture contained in the submitted sample. Because of the dilution effect of the water, values in this column will be smaller than the Dry Matter column.

Dry Matter – Values in the "Dry Matter" column give nutrient information with the water removed. To accurately compare forages of differing water content, they must be compared on a dry matter basis.



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Protein (or Crude Protein) – A measure of the amount of nitrogen in the feedstuff. Laboratories measure the nitrogen in a sample, then multiply by a factor of 6.25 to get the crude protein value.

Acid Detergent Fiber (ADF) – Refers to the cellulose and lignin components of the forage cell wall, and relates to the ability of an animal to digest the forage. As ADF increases, digestibility of a forage usually decreases.

Neutral Detergent Fiber (NDF) – Refers to the total cell wall – cellulose, hemicelluloses and lignin. NDF values reflect the amount of forage an animal can consume. As NDF increases, dry matter intake will generally decrease. Labs often analyze for ADF but may not include NDF values unless specifically requested.

Total Digestible Nutrients (TDN) – An estimate of the digestibility of the forage and one measure of the energy content of a feedstuff. The higher the TDN value of a forage, the more energy it contains.

Net Energy for Maintenance (NEm) – The net energy system is an alternative way to assign energy values to feedstuffs, based on how the energy is partitioned for different uses. NEm describes the ability of a forage to meet the maintenance energy requirements of an animal.

Net Energy for Growth (NEg) – NEg describes the amount of energy in a forage available for growth after the maintenance needs have been met.

Net Energy for Lactation (NEI) – NEI describes the ability of a forage to meet the energy requirements of lactation. This is primarily used in dairy cow ration balancing.

Dates to Remember

July 12-18	Adams Co. Fair
July 13	Pesticide Testing at the Old Y Restaurant at noon. Pre-register at <u>http://pested.osu.edu</u> or call 800 282-1955 and go to Pesticide Regulations.
July 21	Hops program at North Adams HS starting at 7:00 p.m.