Forage testing is good management

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Forage testing is good management

Abstract
Hay supplies are tight for some livestock producers living in the 2005 summer drought areas. And, as normal, supplies of “dairy quality” hay and the “high quality” end of the hay used by the horse industry are likely below the level of need. As the winter hay and silage feeding season approaches, you still have time to set some feeding strategies. The nutritional needs of cattle, sheep, and horses can change greatly over the course of the winter feeding season.

Keywords
Agronomy

Disciplines
Agricultural Science | Agriculture | Agronomy and Crop Sciences
Crop Production

Forage testing is good management

by Stephen K. Barnhart, Department of Agronomy

Hay supplies are tight for some livestock producers living in the 2005 summer drought areas. And, as normal, supplies of “dairy quality” hay and the “high quality” end of the hay used by the horse industry are likely below the level of need. As the winter hay and silage feeding season approaches, you still have time to set some feeding strategies.

The nutritional needs of cattle, sheep, and horses can change greatly over the course of the winter feeding season. The energy needs of all livestock increase with decreasing temperatures of winter. The needs for pregnancy and maintaining body condition of gestating females should be of particular concern. Since hay or silage is the major part of many of these rations, it is not likely that a single forage (hay or silage) will be suitable as a stand-alone feed through the entire winter.

Hay lots will be nutritionally different! Different forage mixtures, different cutting dates, different degrees of weathering, and spoilage will all add to the variability among your available forages. For the best use of the forage resources, all of your different hay and silage types (cuts, fields, etc.) should be tested separately. Compare this inventory of your forage supply, and qualities, with your projected needs. If you find that you need to make inventory adjustments, start now, while the marketplace still provides good opportunities for “wise consumer shopping.”

A good hay sample is collected with a “core sampler,” a sharpened tube that enables you to extract from the bales the proportion of leaves and stems as they exist in the bale. A core each from 15 to 20 bales that represent the lot is recommended. Send the entire 15 to 20 collected cores to the lab; don’t divide the sample. “Grab samples” from hay bales are not appropriate; you end up with more stems and less leaves than in the original hay.

Hay lots are nutritionally different so a good management practice is to collect hay samples using a core sampler. (Jerry DeWitt)

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Grab samples of silage at feedout time (15 to 20 handfuls, collected over several days) is an appropriate sampling method for silage.

Forage testing labs may use several different analysis systems, but if the lab is doing a good job of quality control in the lab, you should receive good information back. Check with your lab to see if they are certified by the National Forage Testing Association. Most labs provide a “standard forage analysis,” which gives information on dry matter, crude protein, adjusted/available protein, measures of fiber (acid detergent fiber [ADF] and neutral detergent fiber [NDF]), calculations of feed energy (net energy or TDN), several minerals, and the relative feed value (RFV) index. Prices for a forage test may range from $9 to $25.

Feed analysis information is most useful in ration balancing. If you will not be using balanced rations and are feeding “just hay,” forage analyses also will be useful. Animal needs will increase by late winter and early spring, so knowing the feed values of each forage lot will allow you to feed lower quality forages early in the feeding season and the better forage when it is more needed. You may be surprised to find how much quality variability exists.

Stephen K. Barnhart, is a professor of agronomy with extension, teaching, and research responsibilities in forage production and management.

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**Plant Diseases**

**Choosing an SCN-resistant soybean variety: It’s not just about yield**

by Greg Tylka, Department of Plant Pathology

Resistant soybean varieties are a very effective strategy for managing the soybean cyst nematode (SCN), producing acceptable yields and suppressing reproduction of the nematode. The number of soybean varieties with genetic resistance to SCN in maturity groups I, II, and III has increased dramatically, from a few dozen in the early 1990s to more than 600 currently. Today, most soybean seed companies have SCN-resistant soybean varieties available for Iowa growers, and yield results of soybean variety trials conducted by private testing programs and universities have begun to be released in the past few weeks.

But what data should be considered when selecting SCN-resistant varieties? The most important characteristic of SCN-resistant soybean varieties is yield in SCN-infested fields, and the yield can vary greatly among varieties reported to be resistant to the nematode. But in addition to yield, growers must consider the effectiveness of the varieties in suppressing SCN reproduction.

SCN-resistant soybean varieties are evaluated each year at plots around Iowa for the ISU SCN-resistant Soybean Variety Trials. (Greg Tylka)