

WEEKLY NEWS COLUMN  
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## FORAGE SAMPLING

Colder temperatures, and snow on the ground means winter is here. Cow-calf producers work to be more efficient and economical in their feeding programs. They make the decisions including how and when to extend the grazing season and whether to use conserved forage (hay) to meet the nutritional demands of their livestock. The decision to feed hay should be based on the nutrient quality of the forage in order to meet the nutrient demands of livestock. Sampling forages and testing for quality is essential to know whether a cattlemen is meeting the forage requirements of their stock. Additionally, knowing exactly what's being fed helps producers to be more efficient and economical in their program.

While base numbers for nutrients in different types of forages exist, nutrient concentration can vary considerably between different types of forages and within a particular cutting of hay. Protein in alfalfa hay can range from 10-25% on a dry matter basis and grass hay will contain 4-18% protein. Using a base number for a particular forage can result in a producer over or under feeding certain nutrients. In order to obtain the most accurate information for your nutritional program, it is best to sample for forage quality.

The most important factor that affects forage quality is the maturity of the forage at harvest. As the plant matures, fiber concentration of the plant increases and fiber is less digestible than other plant parts. So, as fiber content increases, the amount of digestible nutrients available to the animal decreases, decreasing the amount of energy in the plant. Protein concentration in the plant also decreases with maturity.

Forage testing can be done through our local K-State Research and Extension office located in Winfield. Getting a representative sample, packaging it properly for transport, knowing what to test for, and understanding the analytical numbers are the critical points that we can assist with. In order to receive accurate results when testing forages, proper sampling procedure is essential. A representative sample of a forage lot should be taken. The forage lot consists of all forage harvested from one field at the same maturity and cutting.

A hay probe is available for checkout from the Extension Office to sample forages. When sampling large round or square bales, the probe should penetrate at least 18 inches into the bale and have an internal diameter of at least 3/8-inch. If the probe is 18 inches or longer, 15

large round bales should be adequate if the “lot” size is 30-40 bales. Collect one sample from each bale by coring straight in from the center of the end of square bales and from the wrapped circumference of round bales. Place the entire sample into a plastic bucket and mix around and then fill a plastic zip-lock bag for transport. For chopped or ground hay, collect about 10 small samples during the grinding process and place them in a plastic bucket for mixing then place the sample into a zip-lock bag for transport. If you are sampling a pile, take about one-fourth of the samples from the top half of the pile and the rest from the lower half.

The bag should be labeled with your name, address, lot identification (field name), and type of material in the bag. A description sheet will also need to be filled out to accompany the sample to the lab.

Be sure to allow adequate time for results to be received to formulate rations. Results are typically received within 2 weeks.

For more information about forage sampling contact the Cowley County Extension Office 221-5450, 441-4565.

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