

Supplemental Feeding – What’s Different This Year

Based on hay samples submitted over a ten-year period to the University of Arkansas Agricultural Diagnostic Laboratory, 70% of hays harvested in Arkansas do not meet the energy (TDN, total digestible nutrients) requirements of a lactating beef cow, and 40% do not meet the protein requirements of a lactating beef cow. Most of the time, supplemental energy is required for hays being fed to lactating beef cows, but supplemental protein is required only part of the time.

Interestingly, this year numerous rations for lactating beef cattle have required the addition of protein as well as energy. Although more samples sent into the lab for analysis tested deficient in TDN as opposed to protein, numerous hay samples this year have been protein deficient in addition to being inadequate in TDN content. It is not clear whether this reflects differences in spring fertilization and harvest conditions or just differences in producers participating in the program. However, it does demonstrate the importance of a forage analysis.

Protein supplementation is expensive, and many times cattle producers choose a supplement that is high in protein when a forage analysis reveals the cows only needed supplemental energy. Under this condition of high protein and low energy supplementation, cattle have been observed to lose weight. Alternatively, several hay samples submitted through the focus program this year contained only 6–10% of the recommended level of protein. Diets inadequate in protein must be supplemented to avoid a decrease in forage intake and digestibility, which can also cause cows to lose weight.

Since hays vary in protein and energy composition, the best method for developing a winter feeding program that will optimize both animal performance and winter feed cost is to first have hay tested for nutrient composition and then choose a feed supplement that corrects deficiencies.

A routine hay test costs \$18 per sample. This would be a \$0.60 per head investment in a 30-head herd. This is cheap considering that some feed supplements cost \$0.25 per head daily— and they may not be necessary.

The practice of forage testing is one of several management tools taught through the Arkansas Beef Improvement Program and the Reducing Winter Feed Costs Focus Program (both offered by the University of Arkansas Cooperative Extension Service). Cattle producers participating in these programs submit hay samples for a nutrient analysis, and the county Extension agent assists with balancing winter feed rations based on the nutrient composition of the hay and nutrient requirements of the herd. Cattle producers participating in the Reducing Winter Feed Cost – Supplemental Feeding demonstration last year were able to reduce winter feeding costs \$3 to \$12 per head by balancing rations based on a hay analysis when feeding average (11% CP and 54% TDN) or better quality hay.

For more information on hay testing, submitting hay samples, and balancing feeding rations for beef cattle, contact your local county Extension office.