



PO BOX 1268

LAMESA, TX 79331

GARY ROSCHETZKY, CEA-AG/NR

Phone: 806-872-3444

Fax: 806-872-5606

<http://dawson.agrilife.org/>

Supplemental Feeding

Supplemental Feeding is simply supplying nutrients that are lacking in an animal's primary diet. It accounts for the greatest portion of all costs associated with keeping a cow for a year. Often, cows are grazed on standing forage in the fall and into the winter. Supplementation is a moving target at best, because the quality of the forage is constantly declining; therefore, we usually talk in wide ranges of supplement amounts and kinds since the rate of decline is variable.

When the time comes to begin feeding hay, the situation is a little different. Through the course of a feeding season, the quality of properly cured, packaged, and stored hay will change very little. Although there are still too many variables (age, condition, breed composition, weather, etc.) to calculate a rock-solid supplement program, the "target" is considerably more stationary.

Without knowing the nutritive value of the hay, there are generally two approaches to supplementation: Feed no supplement and expect the hay to meet the needs of the cows, or feed a set amount of supplement regardless of hay quality. Consider a 50-head herd of 1200# dry cows, fed free-choice bermudagrass hay for a 90-day period from December 1 to March 1. Assume 38% cubes at \$240/Ton, and that an analysis would show the hay was either 6% or 8% crude protein. What is the value of knowing even that small difference in quality? The following examples illustrate that value under both feeding strategies, with all other variables being equal:

6% hay, no supplement - They will consume about 1.75% of body weight and lack some protein and energy. They will lose condition, which will cost me in calving difficulty, lower calf vigor, increased calf morbidity and mortality, and slower breed back next summer. If weaning percentage next fall is reduced a conservative 2%, underfeeding this fall could cost me at least one calf; \$450. If conception rates next summer are off by 7% due to low cow condition, I'm out 4 calves the next year, or \$1800.

6% hay, 2#/day 38% cubes: She actually needs only 1.25#/day to meet her nutritional requirements; so, I'm more than meeting her nutritional needs, but paying out \$8.00/cow more than necessary; \$400.00 total.

8% hay, no supplement: I lucked out this winter! She should be able to meet her requirements on hay alone.

8% hay, 2#/day 38% cubes: The hay alone supplies her needs so I could save \$21.00/cow in feed costs over the period; \$1050 total.

Knowing the quality of your hay enables you to fine-tune your supplement program for maximum efficiency and return.

The same basic relationships apply to any class of cattle. Many producers will dry-winter stocker cattle on hay and supplement. Depending on desired performance, typical rations will be 10-33% supplement and 67-90% roughage (dry standing forage or hay). There is no way to accurately formulate a supplement to meet their nutritional requirements without knowing the nutritional value of the roughage. For instance, five weight calves wintered on 2# of cottonseed meal per day might gain about 0.5#, 1.0#, or 1.5# daily, with 8%, 10%, or 12% crude protein hay, respectively.

To accurately estimate performance, cost of gain, and the profitability of a backgrounding program, you must know the nutritional value of the hay portion of the ration.

Through the Noble Foundation, it costs \$10.00 to get a hay sample analyzed for crude protein, total digestible nutrients, and macro-minerals. Compared to the potential costs of not knowing, it is a small investment with tremendous returns. And it's not too late to benefit from a hay analysis this winter.

The information for this article was found at the following URL: <http://www.noble.org/Ag/Livestock/SupplementalFeeding/>
It was written by: Clay Wright