

Cattle Business in Mississippi – September 2004 “Beef Production Strategies” article

From Hay Making to Hay Feeding – Planning Winter Nutrition Programs

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Nutrition-related costs typically make up well over half of the costs in a cow-calf operation. In Mississippi, forage-based diets predominate in cow-calf production, yet supplemental feeding programs are often still necessary to maintain the proper nutritional status of the herd. Stocker operators rely on supplemental feeds in times of forage limitation as well. With the extended period of wet weather experienced across much of the state earlier this summer, many cattle producers had to delay hay harvesting. As a result, the availability of good quality hay could be limited this winter. If a winter-feeding plan is not already mapped out, then now is the time to do so. A winter-feeding plan involves evaluation of pasture and hay quality and supply, determination of cattle nutrient needs, and estimation of supplemental feed requirements.

Pasture Conditions

Start by planning cool-season grazing to limit the amount of hay and supplemental feed needed. Develop a cool-season forage plan for this winter keeping grazing needs in future winters in mind. Annual ryegrass and tall fescue are two common cool-season grasses that are used in many winter grazing programs in Mississippi. As an annual forage crop, annual ryegrass acreage decisions should focus on cool-season forage needs for this winter and spring. Tall fescue, on the other hand, is a perennial forage, so tall fescue fields established this autumn need to be pampered during establishment and not grazed until next spring. Therefore, do not plan for acreage established this autumn into tall fescue to be part of the winter feeding plan for this year. Instead, it should be considered a component of a long-term winter-feeding plan where additional cool-season forage production is desired. Small grain forages, such as oats, wheat, and rye, are worth considering also, as they can compliment annual ryegrass production by providing earlier grazing.

Hay Quality and Supply

Hay supply is easily measured as hay is produced. Useful hay production and storage records should be noted for each cutting and include: field ID, acreage harvested, date harvested, forage type, number of bales, storage location, average bale weight, and forage analysis results. When possible, plan hay storage to match forage test results. For instance, hay with higher total digestible nutrients (TDN or energy) and crude protein levels would be better for indoor storage than hay with lower nutrient levels, given that storage waste is higher with outside storage.

Bale weights can be taken using platform scales available from the Extension Service by contacting your Area Livestock Agent. In July 2004, a Leake County producer working with Extension Area Livestock Agent, Houston Therrell, weighed several 5' by

5' round hay bales on a set of platform scales. The producer guessed the bale weights at 1200 lbs. The actual bale weights ranged from 1280 to 1770 lbs. These were all bermudagrass hay bales from the same field that were harvested on the same day by one operator using one baler, yet there was tremendous variation in bale weight. This is a real world example of the value in actually measuring bale weights instead of just guessing. Knowing storage locations of individual hay lots, bales numbers and weights, and forage test results allows producers to pinpoint the nutrient supply available from hay and to make hay-feeding and supplementation decisions that better match animal nutrient demands.

Herd Nutrient Needs

For more efficient use of nutritional resources, cattle can be divided into feeding groups based on nutrient needs. As a general rule, lactating cows need higher nutrient levels than dry cows, and first-calf heifers need higher nutrient percentages in their diets than mature cows. The better quality hay should go to the feeding groups with higher nutrient needs. Another approach is to allocate higher quality grazing paddocks to the feeding groups with higher nutrient demands.

The best time to improve cow body condition in preparation for calving and breeding is in the months right after weaning. Daily dry matter intake needs approach 2% of body weight for mature cows immediately after calves are weaned. As calving nears, dry matter intake needs will increase, and after calving daily dry matter intake levels should be closer to 2.5% of body weight. If hay quality/supply appear short and grazing plans cannot provide adequate levels of nutrients for the herd, then supplemental feed may become necessary. Although there is added expense in supplemental feed, the cost of having thin cattle that do not rebreed or calves that do not grow like they should can be even more costly to profitability.

By-Product Commodity Options for Supplemental Feeding

By-product commodities are a viable feed alternative to commercially mixed supplements. Take time to evaluate both commodity feeds and commercial supplements to determine what prices in as the most cost-effective to achieve target production levels. It is useful to reevaluate diets over time as feed prices and availability change to make sure that the cost of the current nutritional program is reasonable in comparison with other feeding options.

Dried distillers grains usually reach seasonal lows around this time of year. Whole cottonseed prices, on the other hand, tend to start falling after June and usually reach annual lows in October and November. Cottonseed hull prices tend to climb in November and December over September and October prices and then drop again in January and February. The best prices on soybean hulls are typically in early summer, with soybean hull prices often rising after August before starting to decline again after January. Prices of wheat midds are generally lowest in May and reach their peaks in December. Price trends in the current year can always buck the traditional seasonal trend, however, so it is important to stay up to date on current commodity prices. Two

useful resources available on the internet for regularly updated commodity price information are:

Oklahoma State University Feed Commodity Bulletin

<http://www.ansi.okstate.edu/exten/feedbull/>

Missouri By-Product Feed Page

<http://agebb.missouri.edu/dairy/byprod/>

Just because certain by-products are cheap in terms of dollars, does not mean that they are necessarily a good value. The nutritional makeup of feeds and what they will contribute to beef cattle performance determine their true value. Farm feed storage, mixing, and handling capabilities also determine the feasibility of different diets for the herd. Specific feeds can have characteristics that require special handling considerations, as in the case of the flowability limitations associated with fuzzy whole cottonseed. A cornstarch coating process for whole cottonseed shows promise for alleviating this handling problem though. Because each feed has its own unique feeding advantages and limitations, it is worth the time to visit with someone who is competent in formulating beef cattle diets to avoid any potential nutritional problems or disorders in the herd.

Plan Ahead

It is not too early to start planning ahead for an effective and cost-effective winter-feeding program. By knowing what there is to work with in terms of hay and grazing, then a supplementation program can be mapped out in advance to meet the nutritional needs of the herd. Making sure that cattle have proper nutrition through the winter-feeding period can pay big dividends in herd productivity. For more information on cattle nutrition or related topics, contact your local Extension office.