EMPHASIZE QUALITY AND SUPPLEMENT LESS

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I generally encourage the use of supplemental feeding programs. There was a time (a few weeks ago), when a few extra pounds of supplement could make up for low quality hay without breaking the bank. With the meteoric rise in feed prices, however, that time has passed. As we begin to make hay for the winter of 2008-09, I highly recommend that you place an emphasis on making good quality hay.

The current prices and price forecasts for commodity and by-product feeds are rather expensive, given the price of cattle. Certainly, hay isn't cheap, either. But, high quality hay is still cheaper than most supplements you can feed. Money can be made by supplementing less, but this will only work if an emphasis is placed on making high quality hay. (Of course, grazing more in the winter months will be even more profitable, but I digress.)

Priorities for Good Quality Forage

Certainly, there are many factors that affect the quality of hay. The most common factors are enumerated in Table 1. Note, however, that maturity is listed first. **Maturity is BY FAR the most important factor that affects forage quality**. As plants mature, the fibers that give the plant structural support become more rigid (more lignified). This causes the forage to be less digestible and less capable of providing the energy needs of the animal. As a result, more and more supplement is needed to meet the requirements of the animal (Table 2).

Table 1. The primary factors affecting the nutritive quality of a hay lot.

Factor		Recommendation
1.	Plant Maturity	Cut bermudagrass every 4-5 wks; cut tall fescue in the boot or early head stage.
2.	Forage Species	Use the highest-quality grass species that will persist in your environment.
3.	Bale Storage	Protect bales from rainfall and weathering during storage (i.e., barn, tarp, etc.).
4.	Rain During Hay Curing	Avoid cutting if significant rainfall (> 0.50 inches) is predicted during curing.
5.	Moisture at Baling	Allow forage to dry to the appropriate moisture (Round: 15%; Square: 18%)
6.	Fertilization	Provide fertilizer based on soil test recommendations.
7.	Variety	Use varieties that have proven to be higher in quality.

Table 2. The effect of bermudagrass and tall fescue maturity on hay quality, supplementation rate, and cost of supplementing a lactating beef cow.[*]

Crop	Maturity	Crude Protein (CP)	Total Digestible Nutrients (TDN)	Supplement Req. for a Lact. Cow[*]	Cost to Supplement
		---- % ----	---- % ----	lbs/hd/day	$/hd/day
Bermudagrass	4 weeks	10-12	58-62	0	$0
	6 weeks	8-10	51-55	2.3 – 4.8	$0.22 – 0.45
	8 weeks	6-8	45-50	5.3 – 7.5	$0.50 – 0.72
Tall Fescue	Late boot	14-16	66-70	0	$0
	Early head	11-13	60-63	0	$0
	Dough (seed)	8-10	50-54	3.0 - 5.3	$0.28 – 0.50

* Assumptions: 1200 lb cow, average to above average milking ability, first 3 months postpartum, 6.0 lbs of TDN required daily, and supplement provides 85% TDN and costs $190/ton ($0.095/lb).

Save Money with a Forage Test

Chances are you've probably heard "forage-guys" like me preach on the value of forage testing for years. Forage tests reveal the true value of any forage (i.e., the nutrient content and the amount of digestible nutrients). More importantly, though, it allows one to develop a "least-cost" ration or feeding program.

Don't just sample one bale from all the bales you've made, though. Begin by identifying hay "lots". In general, a hay "lot" is defined as hay that comes from a single cutting, from a single field, AND a single variety. Each cutting, each field, and each variety of bermudagrass (or other hay species) will be different. In order to sample by lot, though, you must store these bales in a way where they are organized by "lot." This will also help you match the right rate of supplementation to the hay lot that you are feeding.

Secondly, take care to core enough bales in the lot to be representative of the hay lot. Since hay is quite variable (even within a lot), the National Forage Testing Association (NFTA) recommends cores be taken from at least 20 randomly selected bales per hay lot. These cores can then be thoroughly mixed and submitted for analysis. Remember, grab samples won't do. By obtaining grab samples, leaves will be stripped off and the results will be artificially low in quality. The use of a well-designed hay core is critical to maintaining consistency. If you aren't familiar with core sampling devices or forage testing techniques, I recommend you first visit NFTA's website (www.foragetesting.org) and then visit with your County Extension Agent for more details.

Participate in a Hay Contest

I suppose there are just about as many ways to stack hay as there are cattlemen in Georgia. But, there is only one way to determine how well your hay "stacks up" relative to your neighbors': put it in a hay contest. Many county and regional cattlemen's associations now sponsor hay contests. We also have many participants in the Southeastern Hay Contest, which is held each year in conjunction with the Sunbelt Ag Expo in Moultrie. Most hay contests, including the Southeastern Hay Contest, do not charge for your entry and only charge the standard fee for analyzing through a reputable lab.

Entries into the Southeastern Hay Contest are judged solely on the best measure of forage quality, Relative Forage Quality (RFQ). By using RFQ, hay lots from all types of hay, all regions of the country, and all management schemes can be judged on an "apples to apples" basis. This contest is open to all producers in the Southeast (from Texas to Virginia, Tennessee to Florida). To participate in the Southeastern Hay Contest, you simply submit a contest entry form with your forage sample and analysis fee ($10). Contest entries are submitted through your County Extension office. For more information about the Southeastern Hay Contest, check out our link to the contest guidelines and forms on www.georgiaforages.com or contact your County Extension Agent.

To learn more about how to make high quality hay, develop a least-cost feeding program for your animals, or participate in a local or regional hay contest, check out our website at www.georgiaforages.com or contact your local University of Georgia Cooperative Extension office.