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“Make Hay While the Sun is Shining”

By Ray Hicks
Screven County CEC

There is a common saying that makes a lot of common sense: You don't want to be broken down when it is ideal hay baling time. So let's talk about some preventive and routine maintenance that could alleviate this down time.

First, as you were cutting, raking or baling this summer did you feel any unusual vibrations or sounds in the equipment? Make note of these and check them out before they become major problems. Any preventive maintenance and repair not only helps with next year's season but also helps with resale value of equipment.

Clean equipment is easier to service and also helps prevent rust as you store for winter. Remove dirt and dust from balers with sweeping or using high - pressure air. The use of water can cause rust on all the moving parts of baler. High pressure water can be used for mowers and rakes.

Always go ahead and grease machines and oil chains as you finish each cutting. This allows you to see any damage that need to be attended to. A good list of service tips provided by Hesston Haying Equipment is as follows:

- On disk mowers, replace knives and rotate or replace worn turtles covering knives as needed. Sharp knives cut better and are more efficient.
- Grease all lift-system points.
- Sweep or use air pressure to remove dirt, dust and hay debris. Aggressive washing should be avoided to reduce the opportunity for rust.
- Add grease to all grease zerks, especially those joints prone to wear.
- Check gearbox fluid levels and change as recommended in operator's manual.
- Replace broken pickup tines.
- Oil chains before placing in storage.
- On round balers, inspect belts for checking and other wear. Loosen belt tensioners so they are not sitting under full tension through the winter.
- Clean the rake to remove dirt, dust and hay debris.
- Conduct a thorough walk-around inspection to identify other service and maintenance needs, including rotating the basket and raking wheels to identify worn bearings.
- Check and repack wheel bearings annually. Inspect tires for wear and weather checking; inflate to the correct pressure.

By following a few simple maintenance routines hopefully you can avoid equipment breakdown in a crucial time so you can “Make hay while the sun is shining”.



What is the value of my hay?

By Will Lovett
Bacon County CEC

One of the most common questions I get asked as an extension agent is “What is the value of my hay?”. This common question does not have a simple answer. What I tell producers is....it depends.

The first step in developing a value for your hay is determining your cost of production. This is important whether you plan to sell your hay or feed it yourself. The best way to establish your cost of production is by calculating your hay cost per ton or per bale. As you begin this process you will need to your fixed and variable costs. Fixed costs will include line items such as interest, rental, depreciation, taxes, insurance, etc. One thing I always advise my clients is to be sure and include machinery costs in their calculations, because as we all know eventually our equipment will need to be replaced. Fixed cost may vary significantly between producers depending on the number of bales produced per year and each person's investment in equipment. Variable cost will fluctuate with the level of production. Variable costs include items such as fertilizers, chemicals, labor, fuel, etc.

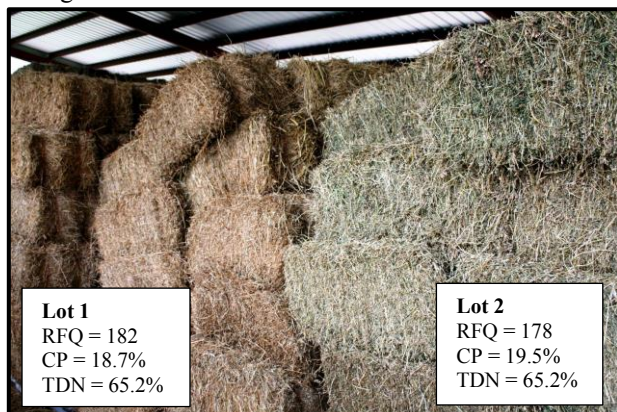
The following formula would be used to calculate cost per bale or ton.

$$\text{Total Cost per ton(bale)} = \frac{\text{Total Fixed Costs} + \text{Total Variable Costs}}{\text{Total tons(bales) produced}}$$

As you move forward with cost determination, those who are planning on selling their hay need to be aware of what the market is willing to pay. Many niche or specialty markets, such as "horse quality" square bales can command a significant premium per ton over round bales. Take the time to investigate your area and include your findings when determining your selling price.

If you are producing hay for your own use or plan to market your hay based on Forage Quality, you need to know the nutrient composition of your hay. The concentration of nutrients (Crude Protein, TDN, Fiber Content or digestibility) cannot be determined by the feel, texture, smell or color. Just using these parameters can often times lead producers astray.

The photo below is a good example. Even though the bales in Lot 1 are sun bleached they actually test higher in overall nutrient content.



Upcoming Events

American Forage and Grassland Council's Annual Meeting
Jan. 22-25, 2017 | Roanoke, VA

NE Georgia Beef Cattle Short Course
Feb. 8, 2017 | Athens, GA

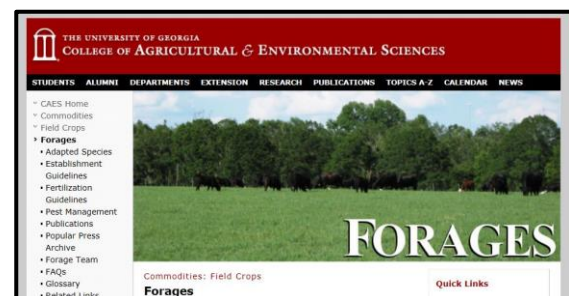
Georgia Forage and Grassland Council's Annual Meeting
Feb. 16, 2017 9 a.m. | UGA Livestock Instructional Arena | Athens, GA

Tall Fescue Workshops
Feb. 16, 2017 1 - 5 p.m. | UGA Livestock Instructional Arena | Athens, GA
Mar. 22, 2017 10 a.m. - 3 p.m. | GA Mountain Res. & Educ. Center | Blairsville, GA
Mar. 23, 2017 10 a.m. - 3 p.m. | Walker Co. Ag Center | Rock Springs, GA

SE Georgia Beef Cattle Short Course
Feb. 28, 2017 | UGA-Tifton Bull Evaluation Center, Iwinville, GA

Looking for more forage information?

Be sure to visit
GeorgiaForages.com!



Value of my hay (cont.)

The only way to determine the true quality of a forage is to Forage Test. The average cost of a forage test is less than one round bale of hay. UGA's recommendation is to sample each cutting of forage from each field. The information you gain from forage testing will allow you or your customer to make more informed feeding/supplement decisions. Table 1 shows how forage quality effects the supplement needs, i.e. cost of a lactating beef cow.

Table 1. 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. Beef 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	\$0.23 – 0.48
	8 weeks	6-8	45-50	5.3 – 7.5	\$0.53 – 0.75
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	\$0.30 – 0.53

So why not just use table 1 to estimate quality for my hay?

Even a small change in nutrient value can have an impact on hays' dollar value. Using the nutrient ranges in the chart above, Good Bermudagrass Hay cut at 4 week intervals will range in “average” nutrient value from 10-12% for crude protein and 58-62 % in TDN (energy levels). So is there any difference in “worth” between 4 week Bermudagrass hay that is 12% protein and 60 TDN and 4 week Bermudagrass hay that is 10% protein and 58% TDN? Yes! I entered hay with both values into the UGA Basic Balancer for beef cattle to compare. The 10% protein and 58% TDN valued hay required almost 3 pounds of soyhulls/distillers grain supplement to meet protein and energy (TDN) needs. The lower nutrient value hay cost \$0.13 more per cow per day to feed. This means that the higher protein and TDN is “worth” nine dollars more per ton. I also compared 4-week old hay to 8-week hay using the UGA Basic Balancer. This comparison revealed a \$35 per ton difference in value at current commodity prices.

Like I said, the value of your hay depends on many different variables; however, it is key to know your production costs and the true nutrient content of your hay. This information combined will be the best predictor of what your hay is worth to you.

Contact your local county extension office if you would like assistance with any of the topics discussed in this article.

This article contains information from Dr Curt Lacy's Economics of Hay Production and UGA Extension Bulletin 1425, Understanding and Improving Forage Quality

Dealing with Grub Damage

By Brock Ward
Miller County CEA

General decline of forages in pastures or hayfields can be attributed to many things. Often fertility is the first thought that crosses a county agent's mind. Secondary factors are then assessed to see how they might have played a leading role in the reduction of productivity. These secondary factors include drought, diseases, weed pressure, herbicide injury, soil compaction, or insect damage. Producers that have areas declining in the late summer into fall can suspect insect damage from a soil borne insect complex we call grubs.

>>Page 4

Grubs (cont.)

Grubs are the larval stage of beetles that feed on decaying organic matter and some of those species also feed on roots as well. Pastures and hayfields that have had chicken litter or other manure applied as a fertilizer are typically the areas where these grubs are the most severe. It is important to also identify the grubs that are causing the damage as control and management of them can be different. Perhaps the most troublesome is the May/June beetle (MJB). The grubs of the MJB have a characteristic “zipper” pattern in the hair on the underside of their “tail-end”. This helps you to distinguish it from other grubs like the Green June Beetle (GJB) or chafer beetles. When faced with the MJB complex of beetles, the larvae burrows deep into the soil for much of its yearlong lifecycle (as many as three years in Northern states) so treatment isn’t an option because we can’t expose the grubs to an insecticide treatment with any repetitive certainty. In the case that you have grubs from the MJB complex, renovation or replanting after the emergence of the beetles is likely the best management strategy. Chafer beetles are much like the MJB complex of beetles but require many more of them to reduce a stand of pasture grasses. Typically the source of the forage decline in a pasture is linked to other causal agents when chafer beetles are found in heavy numbers.



If the Green June Beetle (GJB) is the source of your damaged forage, treatment can be managed with insecticide use. The GJB has a one year lifecycle and feeds up through the soil surface before burrowing down again. This feeding habit makes it easier to target the pest.

Many pyrethroids are labeled for use on the GJB adults, however the larvae have fewer insecticides labeled for their control. It is unlikely that GJB alone is reducing the stand of forage. As with most secondary factors, it is likely a combination of stressors that begin to reduce the stand. An example I have seen recently is where drought stress, soil compaction, and grubs were leading to stunted areas in a pasture. Be sure to consult your County Extension Agent for additional management options or chemical recommendations for your situation.

