



BEEF CATTLE TIME

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Fall 2004

Testing of Hay Needed This Winter

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Animal Science*

The testing of hay may be extra important this winter. Reports indicate there may be a record yield of hay this year, but the quality may be low in many cases. Abundant rainfall during the spring resulted in a lot of forage being produced but caused great difficulty during the harvest season. A lot of the hay was more mature than desired, and in many cases it received rainfall during the harvest process. Both conditions have contributed to the low quality.

Producers can provide supplementation if they have lower quality hay, but how do they know quality of the hay? Forage testing is the only way to determine the quality. For a fee of \$10 per sample, producers can have the hay tested and receive feeding recommendations if information on their animals is provided along with the sample(s). Information on taking the forage sample and sample submission sheets are available at local Extension offices. Without proper supplementation, animals will not perform at the desired levels. In addition, it may be that cows will actually loose body condition. This can result in delayed breeding and lowered conception rates (See article on body condition scoring).

Another Reason to Soil Test Before Fertilizing Fall Pastures

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Everyone knows that grass tetany is primarily due to magnesium deficiency and most likely to affect lactating cows on early-spring pastures. However, there are also complicating factors in the soil that can increase the incidence of grass tetany. Since fall is a popular time to apply fertilizer, it is also a time to reflect on the best

way to get desired results (and avoid complications like grass tetany).

Deciding which soil amendments to use will be easier and more accurate if based on a soil test. University of Tennessee soil test pasture recommendations are consistent with preventing grass tetany.

Recent work out of Missouri indicates that fescue pastures with sufficient phosphorus (P), according to soil tests, were less prone to grass tetany. But, how would the phosphorus level be known without a soil test?

Results of UT soil tests indicated that 54 percent of soil samples were below 30 pounds of available phosphorus per acre which would be in the “low category.” In East and West Tennessee, soils tend to be lower in phosphorus than in the Tennessee basin counties.

It is a concern that soil testing has decreased in recent years. Soil testing is inexpensive, can improve pasture production and be a tool in preventing grass tetany. It could also reduce overall production costs.

High potassium (K) has also been implicated in contributing to grass tetany. Many soils in Tennessee are already adequate or high in potassium. Adding potash to soils adequate in potassium could increase the potential for grass tetany. **The common practice of adding a “complete” fertilizer (such as triple-nineteen) without soil testing could be a poor management choice.**

Remember: The Tennessee Forage Mineral Survey conducted in 2001 – 04 showed that almost one-third of spring pastures tested over 3 percent Potassium. This is considered over the “Maximum Tolerable Level” of K for cattle. Since excess K especially at these levels can contribute to grass tetany (and milk fever in dairy cows), it is correct to say **K Kills Cows** when overused!

Nitrogen (N) is widely recommended to increase fall fescue growth (often called stockpiling) and spring grass production; but grass growth, as stimulated by nitrogen, is very rapid, high in moisture and low in magnesium (Mg) particularly in the spring. This combination can also contribute to grass tetany and may lead to moderating the amount of nitrogen added to grazing pastures. Also, making certain that cows in early

lactation are provided with *and are consuming* high magnesium mineral becomes extremely important on nitrogen-fertilized pastures.

Remember, UT soil P and K maintenance recommendations are based on annual (**only once-a-year**) application. P and K can be applied to pastures at any time of the year, but fall is often preferred. But, be sure to do it based on a soil test. Nitrogen can be and often is applied more frequently depending on production needs.

In summary, too little phosphorus and too much potassium may contribute to grass tetany. Nitrogen fertilization is needed for good grass growth. K should be used if recommended based on a soil test, but producers should be aware of tetany prevention steps when N and K are used.

New Clover Varieties Show Promise

*Gary Bates, Professor
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One of the goals of any forage producer should be to increase yield and quality with minimal increases in cost. In most situations, this seems like an impossible goal. However, in pastures and hayfields, it is very easy. One of the best ways to do this is by using legumes. The high protein and energy content in red and white clovers can improve the performance of animals consuming the forage when compared to a grass alone. Research in Tennessee has shown that adding clovers to tall fescue pastures can increase calf gain by almost .5 lb per day.

Clover/grass pastures are not only more nutritious but also cheaper to produce. The nitrogen produced by *Rhizobium* bacteria on the roots can replace 60 pounds per acre of nitrogen, saving on spring fertilizer bills, which are often a major expense in forage production.

Two new varieties of white clover are now available. Durana and Patriot were developed from white clover plants found naturally occurring in pastures. Researchers at the University of Georgia bred these white clovers to tolerate disease and other pasture stresses, thereby improving their persistence. They should provide excellent clover stands over several years.

Pay attention to the following details to get a good stand of clovers in a grass pasture or hayfield:

(1) Take a soil test. A pH of 6.1 – 6.5 is the best for clover. Apply lime, P and K, according to the soil test. **Do not apply N.** Nitrogen does not kill clover; but it stimulates grass growth, which increases the potential for the clovers to be shaded out.

(2) Mow or graze the pasture down to a 1 inch stubble height before planting. This will ensure that young seedlings receive adequate light and are not shaded out.

(3) Be sure to inoculate seed or use a lime-coated, pre-inoculated seed. This will provide the bacteria needed for nitrogen fixation. Seed 2 lb/acre of white clover and 4 lb/acre of red clover.

(4) Plant during the last two weeks of February by

broadcasting. After March 1, drilling will probably be necessary. Drilling will provide the earliest and most consistent stands, but be careful to not plant the seeds more than one-quarter to one-half inch deep. When broadcasting, it may be helpful to drag the pasture to ensure good soil-seed contact.

Once the stand is established, try to maintain approximately 3 – 4 inches of stubble. This will keep the fescue short enough so that the clover plants are not shaded without overgrazing the clover. A tall fescue/clover stand should provide high-quality forage while decreasing the need for nitrogen in the spring.

What is the Body Condition Score of Your Cows?

*Clyde Lane Jr., Professor
Animal Science*

The body condition score (BCS) of late-winter or early-spring-calving cows during the late fall will have an impact on the number of cows becoming pregnant within a reasonable time after turning the bull in next spring.

Body condition scoring of cows is a simple procedure. A scoring system of one (1) to nine (9) is used with the score based on the amount of flesh on the cow's body. A condition score of one is assigned to a cow that is extremely thin while a score of nine is assigned to a cow that is extremely fat. Mature cows need to be in the midrange (4 to 6) to be considered in their desirable range. Some producers like to abbreviate the scoring system into three categories. These are too thin (BCS 1, 2, 3), just right (BCS 4, 5, 6) and too fat (BCS 7, 8, 9). Either system is satisfactory if the producer will use the information to make management decisions.

Body condition scoring of every animal in the herd is not necessary. Most cows in the herd will have about the same condition score. If too many cows are out of the desirable range, then feeding decisions need to be made to get the animals moved to the correct condition score. If cows are too thin, then additional or higher quality feed may be required to increase body condition. Cows that are too fat can be given less or lower quality feed. The goal is to have the mature cows in a body condition score of 5 at calving and breeding and first-calf cows in a body condition score of 6 at calving and breeding to ensure acceptable reproductive performance.

If the majority of the herd has the desired body condition score, then a careful evaluation of the outliers needs to be made. Do the cows that are too thin need to be pulled out and given more high-quality feed? Another question that should be asked is whether those cows have a legitimate reason for being thinner than the rest of the herd, or it is possible that these cows simply cannot maintain body condition under the current management and feed regime? Cows that are too fat also

need to be evaluated. The first question is what kind of calf did the cow produce? If the cow is fat and the calf is lightweight, then the cow may be an “easy keeper” that does not provide for her calf. If this is the case, she should be culled. If she raises a desirable calf and still maintains herself well, let her continue in the herd.

Body condition scoring is an easy process to learn and can be an effective tool in managing the beef herd.

Bio-Security on the Farm

*Clyde Lane Jr., Professor
Animal Science*

Every time we listen to a newscast or pick up a newspaper, some reference is made to terrorism and the threat to Americans. There are also risks to beef animals on Tennessee farms. Producers should not panic nor go to great expense to protect their animals. Good management is the bio-security a producer needs. Maintain good fences so animals stay where they belong. Follow a recommended health program to keep animals healthy. Producers should be aware of what is going on with their animals. Treat sick animals as needed. Buy animals and supplies from known sources. Keep unknown individuals off the farm.

Following recommended management practices, is the best way to provide bio-security for your herd. Going beyond that will be necessary only if a specific risk is identified. At this time producers will be provided information about the additional bio-security measures that need to be implemented.

Master Beef Producer Program Offers Valuable Information

*James B. Neel, Professor
Animal Science*

The UT Master Beef Producer Program, an educational program to help cow-calf producers improve their profitability and competitiveness, will be available in 2005.

The program includes 12 sessions that focus on production and issues facing the beef industry. Each session will meet for 3 hours. Producers will get information to help them make improvement in production and marketing as well as on food safety issues.

The program was conducted across Tennessee in 2004 with 331 producers and their spouses from 32 Tennessee counties participating.

Participating producers expressed feelings of greater competence in their roles as producers: “I now have a better understanding of how to use EPD’s.”, “It provided me with lots of useful information.” and “Our entire management, production and marketing practices will be enhanced due to knowledge gained at these meetings.”

A registration fee of \$100 covers all the sessions, an outstanding beef reference manual, other educational materials and related expenses. Producers who complete

the program will also be awarded a Master Beef Producer cap and farm sign.

The Master Beef Producer Program is open to any interested cattle producer. However, enrollment for each series is limited to 25 – 30. Enroll now to ensure a seat.

Interested producers can contact their local Extension offices for additional information and registration material.

Preconditioning

What Does it Cost? What Is it Worth?

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Agricultural Economics*

Many beef producers have sold calves earlier than usual this year because of the very strong market. But with the high prices, many have overlooked the other half of the arithmetic when counting the dollars taken home. It is the total pounds sold — the item producers can control the most. With prices so high, buyers are assuming considerable risk in purchasing calves.

If a buyer pays \$115 per hundred for a 500-pound calf and it dies, it may steal the profit from other cattle. This is based on the average return of \$25 per head in feeding cattle (\$115 X 5 cwt divided by \$25). Estimates on costs for calves that get sick or die vary widely.

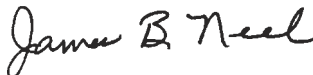
In “on the farm” Extension demonstrations, costs for vaccines, de-wormers and feed for a 45-day weaning program averaged \$60 per head. A cattle buyer recently told me it costs \$60 per head to buy individual cattle and “straighten them out.” A stocker operator reported that the cost for a complete health program plus treatment, without the feed, for put-together calves was \$3.18 per cwt. He also said that reduced owner anxiety on low-risk, preconditioned calves was worth a lot. David May, a manager at Pratt Feeders, LLC, documented that high-risk, put-together calves from weekly auctions were worth about \$5 per hundred less than low-risk calves which were weaned and properly vaccinated. The higher value for these calves was due to higher daily gain, lower death loss, reduced sickness and treatment costs, fewer days on feed, and lower interest and yardage costs. All of these contributed to lower cost of gain for the low-risk calves compared to the high-risk calves. In addition, the finished cattle have a higher percentage grading Choice or better and fewer grading Standard. Recent data from the Tennessee Beef Evaluation on cattle finished in a custom feedlot indicated that among cattle that had to be treated for sickness only 10 percent graded Choice or better. Those requiring no treatment had 48 percent grading Choice or better. Data from last year’s Angus-sired calves in the Southeast Pride Plus sale at Sweetwater revealed that 88 percent graded Choice. That alone could easily be worth \$25 to \$50 per head, depending on the premiums and discounts at the time cattle are marketed.

Many producers are so anxious to cash in their cattle that they overlook the additional money on the table

for those willing to do the work for it. Documented evidence of the additional dollars that preconditioned calves are bringing this fall has ranged from \$45 to \$100 per head over weekly auction prices. Realize that a marketing program is needed to capture these added returns — part of that program is putting calves together in 48,000- to 50,000-pound loads. That alone is worth \$4 per cwt based on UT research. In addition, much of the added return can come from putting on 100 pounds or more during a 30- to preferably 45-day post-weaning program. Five demonstrations in 2002 indicated that, on the average, the added weight netted \$40 per head after costs. Your situation may differ depending on prices for feed and supplies.

There are many more opportunities today to market preconditioned calves, even on a year-round basis. Ask your county Extension agent for a schedule and plan

ahead. Cattle buyers are even asking auction management, “which calves have had their shots?” Therefore, progressive market managers are attempting to package preconditioned calves into larger groups. It is important that producers not just show up at the weekly auction with small groups of calves that have been through a preconditioning program and expect a higher price. A coordinated, planned marketing event is necessary to make the truckloads come together.



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Beef Cattle Time

From:

Leader/Agent

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