



UNIVERSITY OF  
FLORIDA

E X T E N S I O N

Institute of Food and Agricultural Sciences

## Northeast Florida Beef & Forage Group Fall 2004 Newsletter



**October 12, 2004**

Dear Producers,

It is the time of year cattlemen start thinking about their fall and winter feeding program. This newsletter focuses on fall/winter feeding topics. Jacque Breman, Union County Extension also hits on another topic important to some cattlemen that is hunting and deer food plots. As extension agents we try to provide timely topics of interest. We hope that this newsletter, along with NFBFG programs is educational to you and your operation.

If you have any questions about any of the following articles or topics, please feel free to contact your local agent.

Sincerely,

A handwritten signature in black ink that reads "Cindy Sanders".

Cindy Sanders, chair  
Northeast Florida Beef & Forage Group

## COOL – SEASON WILDLIFE FOOD PLOT

**SUGGESTIONS:** Jacque Breman, Union County Extension Director

- Ideal plot size = 1 to 2 acres.
- Plot shape is better if long instead of square (more edge the better).
- Plant one acre for every 100 acres of forest land (1:100).
- Locate plots in areas that are already open or partially open (deer already used to the area being open).
- If you have to clear a new plot area, make sure it is on the edge of cover or surrounded by cover so deer will use it the first season; else it may take them a season to use it habitually.
- Examples of good locations: Old logging decks, woods roads, beetle-killed areas, firebreaks, right-of-ways.
- Plant a variety of crops to prolong food supply. Mixes are better than a single crop plant. You can purchase a mix or make your own using one of the “recipes” listed in the University of Florida Extension Fact sheet that you can download at the following website:

<http://edis.ifas.ufl.edu/AG139>

- Use oats or wheat as an early attractant in your blend of seed and plant earlier. Blends might look like this: oats + Italian ryegrass + red clover + crimson clover or wheat + Italian ryegrass + red clover + crimson clover.
- If you are going to plant clovers and haven't limed in three years, apply one ton of Dolomite per acre and harrow it in now. If you are on a newly cleared, wet, Flatwoods site that used to be in a pine tree rotation you might have to apply two tons of dolomite per acre and harrow that in immediately. We are running a two-week lag time on soil samples and to wait on soil test results to lime would put you late into planting season. If you can

- deal with a later planting time, pulling a soil sample now for pH (and liming recommendation) as well as a fertilizer recommendation for clover + small grains would be advised.
- Be sure to drag and/or pack food plot area after you have broadcast seed on harrowed soil (especially important to lightly pack /drag soil if you planted clovers to keep seedling from drying out on soil surface). You can make a drag using old using a piece of chain-link fencing wired to a round piece of galvanized pipe. You can make or buy a packer.
- Once clovers and grains are up, apply fertilizer. Without a soil test you could probably get by with 400 to 500 pounds per acre of a 10-10-10-analysis fertilizer.



## Grass Tetany In Beef Cattle

Larry Varnadoe

Extension Agent II, Livestock

Nassau County

Grass tetany (also known as hypomagnesemia and grass staggers), can best be described as a metabolic disorder brought on by abnormally low levels of blood magnesium. **This condition occurs mainly in mature cows that have had several calves, are lactating heavily and are grazing on lush grass pastures (especially cool season annuals – rye grass, rye, wheat, and oats).** However, grass tetany can and does affect cattle of all ages, particularly those grazing wheat or

other cereal grain pasture and thin cattle that are exposed to a sudden temperature change from warm to cold.

A combination of several factors work to trigger the onset of tetany. A cow's magnesium requirement doubles from late gestation to early lactation. This sudden increase in the magnesium requirement in conjunction with low concentrations of magnesium in fast growing cool season forages, and aggravated by factors that interfere with magnesium absorption (high accumulations of potassium and nitrogen, whether naturally occurring or applied as fertilizer), are factors that can contribute to the incidence of grass tetany.

Weather may also be a contributing factor as most cases of grass tetany are seen when temperatures are between 40 and 60 degrees F, particularly if conditions are cloudy or foggy. When temperatures rise above 60 degrees F for several consecutive days, the incidence of grass tetany decreases dramatically.

Cattle affected by grass tetany may isolate themselves from herdmates, and often stagger and/or move with a stiff gait as they attempt to walk. As the condition progresses, cattle will breathe rapidly, urinate frequently and may become extremely nervous and irritable to the point of aggressiveness. In the latter stages of the disorder, cattle will collapse to the ground with muscle tremors and convulsions. At this stage, immediate treatment is imperative or death can occur in one to two hours.

The treatment for grass tetany requires an intravenous injection of a solution containing magnesium, calcium, and glucose (combinations and proportions may vary). A qualified person should administer treatment as it must be given in a vein and given slowly. Upon recovery,

affected cattle should be removed from pasture and fed hay and/or a concentrate mix supplemented with magnesium oxide for at least a week. Cattle should then be grazed on a limited basis for a few days and observed frequently to determine if there is a relapse.

**The easiest treatment for grass tetany is prevention.** This can be accomplished by feeding a mineral mixture containing magnesium for a week to ten days prior to grazing winter pasture and continuing for the entire winter grazing period. Many commercial mixtures are available; just make sure that whatever you use will provide adequate magnesium. In most situations, consuming .5 oz magnesium per head per day, will prevent grass tetany. As an example, cows would need to consume 5 oz per head per day of a product containing 10 % magnesium to achieve the desired intake of magnesium.



### **Winter Supplementation Strategies for Beef Cattle**

David Nistler, Duval County Extension,  
Production Agriculture Agent

Money spent on wintering cattle can often make the difference in profit or loss in a beef herd. Wintering costs represent 35 to 45% of the yearly expense for keeping a cow. Proper feeding has a tremendous influence on a cow's fertility and calf weaning weights. Beef cattle producers must plan their winter-feeding strategy to meet the cow's nutritional requirements and do it as cheaply as possible.

With this in mind, most producers understand that forages can provide most of the nutritional requirements of a beef herd during the winter months. The challenge becomes the management of supplements due to variations in forage quality and growth. There are several strategies, which

producers can implement, that can help with these supplementation challenges.

### **Matching Nutritional Needs**

In order for producers to insure their herds are performing adequately in fall/ winter, producers must match the nutritional needs of their cows with the quality of their forages and amount of supplementation. Dry cows may have their nutritional needs satisfied by hay and/ or pasture alone, while the same lactating cow may need additional energy, protein, or both.

Inadequate nutrition before or after calving will have a significant impact upon conception rate and weaning weight. Research indicates that underfeeding protein and energy before or after calving can decrease the conception rate by one third and weaning weight by as much as 50 pounds. When cows lose too much weight after calving and before the breeding season, their energy levels are so low that they may not come into heat. It is important to minimize weight loss. Drastic weight losses will cost you money in non-cyclic, low-producing cows and, in extreme cases, dead cows. For additional information on nutrient requirements see the University of Florida IFAS Extension publication, *Florida Cow-Calf Management, Feeding the Cow Herd* An117.

### **Extend the Growing Season**

Identify soil and forage resources that are candidates for stockpiling. The term "stockpiling forage" is defined as, "allowing forage to accumulate for grazing at a later time." There can be temporary stockpiling of forage of many different species of forage crops in the Southeast, but in most cases long term stockpiling is not feasible due to rapid weathering and loss of nutrients. Choose to stockpile clean, weed-free, well-drained fields. Rotationally grazing stockpiled forages increases forage availability while

allowing time for re-growth. Strip grazing with hay bales left in the field will also further extend the days on pasture. Use electric wire or tape to control access to only a few bales at a time. When feeding hay, producers may choose to unroll round bales or place them in feeders. Both of these alternatives can reduce hay losses.

### **Use Cool Season Forages**

Ryegrass, brassicas, clovers and other legumes, rye, wheat, and oats can provide for fall and winter grazing. These forages can provide nutritious alternatives when pastures are at their lowest production. University of Florida IFAS Extension publication, *Fall Forage Update-2004 SS-AGR-84*, discusses the use of these alternatives in further detail.

### **Minimize Hay Losses**

The ideal situation would be to totally eliminate the need for hay. However, most producers will need to feed hay during at least some periods of the year, especially during winter. Given the time and money invested in hay, it makes sense to take care to protect any, which has been purchased or produced, in order to minimize the total amount needed.

A number of factors affect hay storage and feeding losses, including amount of rainfall, storage site, forage species, bale size and density, and ambient temperatures during storage. However, hay that is stored outside unprotected for several months can lose 30% or more of its dry matter during storage. In addition, the forage quality of the remaining hay is lower, plus hay-feeding losses of weathered hay are much higher due to lower palatability.

### **Separate Cattle According to BCS**

Sorting according to body condition score (BCS 1 = Thin and BCS 9 = Fat) and supplementing according to nutritional needs can further reduce the challenges of winter supplementation. Manage weaned

heifers and older cows with BCS of less than 5 in separate groups. Allow grazing heifers and cows needing an improvement in body condition to graze first, or allow them to graze better quality pastures. Cows in BCS of 5 or higher can graze pastures following these other groups. University of Florida IFAS Extension publication, *Effects of Body Condition on Productivity in Beef Cattle* SS-ANS-14, has additional information and pictures of body condition scores.

### **Know What your Feeding.**

Hay quality and stage of production of the cow dictate whether or not you need a supplement. Hay quality is important to the producer. If you cut your hay in the boot stage, keep it dry, and get it under shelter of some kind, and you will probably have good hay. Only a chemical analysis will tell you for sure about the quality of hay. You need to get the analysis done before you start feeding hay. Remember, all hay is not created equal. Hay analysis is money well spent. County Extension agents, feed companies, or private laboratories can help supply this information.

### **Supplement Minerals**

Trace minerals are typically supplied through a variety of means, including free-choice loose mineral mixes, TM blocks, and fortified energy and/or protein supplements. Free-choice, loose mineral supplementation is generally considered the most common mineral supplementation strategy in grazing beef herds. Unless your cattle operation is large enough to warrant preparing your own mineral mixture, commercial mixtures can be more economical. Commercial mineral mixes should contain approximately 14 to 18 percent calcium and eight to twelve percent phosphorus. The salt content generally ranges from 20 to 25 percent. Use trace-mineralized salt if a deficiency

of any trace minerals is suspected. Marginal, undetected deficiencies can occur in cattle, even when there is no indication of a soil deficiency. Trace mineralized salt is not expensive and is good insurance against trace mineral deficiencies.

### **Supplement Protein**

Supplemental protein is available in many forms. Feedstuffs, fortified supplements, and formulated feeds containing less than 10 percent crude protein to more than 60 percent crude protein are available.

Protein supplements can increase low-quality forage digestibility and intake while extending the grazing season. Limited amounts of high-protein supplements greater than 30 percent crude protein (CP) can be used with low-quality forages (less than 8 percent crude protein and 45 percent total digestible nutrients [TDN]). When forage is of 8 to 10 percent crude protein content, a 20 percent crude protein supplement can be fed daily. Protein supplements containing non-protein nitrogen can be used, but only in limited amounts, and should be provided on a daily basis.

### **One Final Thought**

Many times it is not economical to feed cattle to meet all of their nutritional requirements throughout the year. However, not meeting nutritional requirements of heifers and cows during the last third of pregnancy and the first 60 days of lactation can cause producers great economic loss. Breeding animals not fed properly during these stages of production can be expected to exhibit low birth-weight calves, poor conception rates, greater calf death loss, longer intervals between calving and re-breeding, and lower weaning weights of calves. Maintaining an acceptable body condition score throughout the year will help to minimize these losses.



## **Soil Testing for Optimum Yields**

Soil testing can be one of the most cost-effective management decisions a producer can make. A soil test through the University of Florida's Extension Soil Testing Laboratory costs only \$7 and can pay for itself many times over in savings from over liming and through crop yield increases.

Many people simply apply lime every few years without the aid of a soil test. The desired pH level for cool season annual grasses is 6.0, If you are growing cool season legumes such as clovers or legume-grass mixtures, the target pH is 6.5. Those with acid soil in the range of 5.0 would see a yield increase from the addition of a ton of dolomite per acre which would raise the pH to around 6.0. However, if the soil is already at 6.0 – 6.5, then applying lime will have no measurable effect. Your money spent on lime would be better left in the bank!

A soil test will also recommend the optimum levels of fertilizer nutrients for the crop desired. It can save you money by allowing you to purchase and apply only those nutrients which are deficient in your soil. For example, if the soil phosphorous level is extremely high, additional applications of phosphorous will have little effect on crop yield.

### **Hurricane Assistance Available Through FSA**

Livestock producers are encouraged to contact their local Farm Service Agency Office to report losses associated with damage caused by the recent hurricanes. Federal Disaster Assistance has been approved for producers in the affected counties.