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Montgomery County Agriculture and Natural Resources Newsletter for Livestock, Equine and Forage Producers

Town and Country Recertification Seminar

The Texas A&M AgriLife Extension Service will sponsor an educational recertification program on Thursday, December 13. This program will be held at the Montgomery county Extension Office but will be broad cast to 17 other counties. The day long program will feature a variety of speakers addressing Livestock Vector Management, aquatic weed management, ants impacting our life, update on laws and regulations and pesticide labels and calibration. The program will offer 5 hours of TDA CEU credit and 5 hours of SPCS CEU hours. To view the agenda or receive registration materials, go to the Montgomery County Extension website at montgomery.agrilife.org or email b-gregson@tamu.edu There is a \$50.00 registration fee that covers the program materials and noon meal. Early registration ends December 3.

Private Pesticide Applicator Training

The training will be held on Tuesday morning, November 26, at the Montgomery County Extension Office. The training program will begin at 9:00 AM and last about 4 hours. Study material must be purchased ahead of time to assist with preparation (included in the registration fee). The study guide is actually utilized during the training portion of the program. There is \$60.00 cost for the training to cover program materials, and related costs. The registration fee can be paid when reserving your seat. Contact the Montgomery County Extension Office to reserve a seat at the November 26 training. The Documentation will be provided at the conclusion of the training to be used in securing a test date.

Winter Tetany in Beef Cattle

Grass tetany is considered a problem that usually occurs when cattle or sheep are eating lush, spring grass or annual cereal forages such as rye, wheat or triticale; but, it can also occur when cattle are being fed harvested forages.

Grass tetany, sometimes called grass staggers or hypomagnesaemia, is a metabolic disorder of cattle related to a deficiency of magnesium (Mg). Magnesium is a critical mineral to the nervous system and muscle function. Low levels of magnesium can result in cattle that exhibit hyper-excitability, reduced feed intake, and muscle twitching, especially around the face and ears. Cattle may also appear uncoordinated and walk with a stiff gait.

Grass tetany is most often associated with cattle grazing immature cool season grasses or lush annual forages. However, tetany can also occur during the winter when cattle are being fed grass hay, alfalfa hay or annual forages harvested for hay. This is especially true if these hays are being fed in a dry lot situation where they are the only source of feed.

Grass, alfalfa and cereal grains harvested for hay can be low in magnesium. A mineral analysis showing less than 0.15% magnesium in hay is considered low. When hay is low in magnesium and calcium while being simultaneously high in potassium, tetany can occur.

Forages likely to cause grass tetany are often borderline to low in magnesium and sodium while having excess levels of potassium. Because high potassium levels interfere with magnesium absorption, it's the excess potassium that induces tetany. An imbalance of potassium, calcium and phosphorus in feed can hinder magnesium absorption from the digestive system into the blood stream, magnifying the problem of a low intake of magnesium. Sodium is important in transporting magnesium into cells, so it is crucial to provide adequate sodium (salt) to insure proper magnesium utilization.

To prevent winter tetany from harvested forages, consider the following:

- Test hay for mineral concentrations to identify if an imbalance of magnesium, potassium and calcium is present.
- If hay tests low in magnesium and calcium and high in potassium, consider feeding a high magnesium mineral supplement.
- Examine the concentration of potassium in mineral supplements. If feeds are already high in potassium, feeding additional potassium in a mineral only aggravates the problem.
- Consider feeding hay that is higher in calcium and magnesium with the hay that is low in magnesium. Alfalfa can be high in potassium as well, so be sure to test prior to feeding.

Winter tetany can be an unexpected problem as most producers are not looking for it at this time of year. Through forage testing for levels of calcium, potassium, phosphorus and

magnesium present, producers can determine if action may be needed to prevent winter tetany from occurring.

Learning the keys to feeding your cow herd during the winter can help increase profitability.

1) Know the nutrient requirements of your cow herd.

Nutritional requirements increase significantly at the time of calving and it is important to adjust the feeding program accordingly to meet these requirements. Refer to ANR-0060 Nutrient Requirements of Beef Cattle for more information (www.alabamabeefsystems.com under the 'Nutrition' tab) on the daily dry matter, total digestible nutrients (TDN), crude protein (CP), and mineral needs of different classes of livestock.

2) Consider the source.

Know and understand the quality of the hay that you are feeding. A forage analysis is needed to accurately determine the nutritional value of hay and if additional supplementation is needed outside of this feedstuff in your herd. Estimate the number of hay feeding days per year, and the quantity of hay needed to carry your herd through the winter.

3) Match.

Matching the quality of hay with animal nutrient requirements is the first step in developing a supplementation plan. This starts with comparing the nutrient requirements of your animals (Table 1; green columns) to the amount of nutrients provided by the forage. If the quality of hay is less than the daily nutritional requirement of the animal, additional supplementation will be needed.

Table 1. Matching animal nutrient requirements with differing hay quality.

			4-wk regrowth Coastal bermudagrass hay (62% TDN, 12% CP)	8-wk regrowth Coastal bermudagrass hay (52% TDN, 8% CP)
Stage of Production	TDN Required (% in diet needed per day)	CP Required (% in diet needed per day)	Supplement Needed?	
Dry Pregnant	48	7	No	No
Peak Lactation (0 to 90 days after calving)	60	12	No	Yes
Late Lactation	55	9	No	Yes

4) Evaluate and compare supplemental nutrient sources.

If supplemental feed is needed, evaluate the feed on a cost per pound of nutrient basis, not solely cost per ton of feed. For example, if additional energy (TDN) is needed, compare feed sources on a cost per pound of TDN basis. Use a decision tool like the cost calculator in the UGA Basic Balancer or the Alabama Beef Systems Byproduct Feed Quick Reference Guide for comparing the value of feedstuffs.

5) Provide supplemental energy to cattle during severe, cold weather events.

In cold, wet weather often found in the winter in the Southeast, the energy requirements of beef cattle increase 2% for each degree that the wind chill is below 59°F. Provide a small amount of digestible energy supplement (ex. soybean hulls at 0.3 to 0.5% of animal body weight per day) along with free choice hay during and after (3 to 5 days) the cold event to decrease energy losses during this time period.

Sincerely,



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