

## December Announcements

- Master Cattle Producer Courses near you! Become a Certified Louisiana Master Cattle Producer this year. Check the website to find out more about courses being offered in your area.
- LSU AgCenter would like to thank Dave Foster, LA Dept of Ag and Forestry for his dedication throughout the years. Dave will be retiring at the end of this year and we wish him the best of luck.



*For more information about Dave's retirement information, contact Jason Rowntree at 225-578-3345 or email [JRowntree@agcenter.lsu.edu](mailto:JRowntree@agcenter.lsu.edu).*

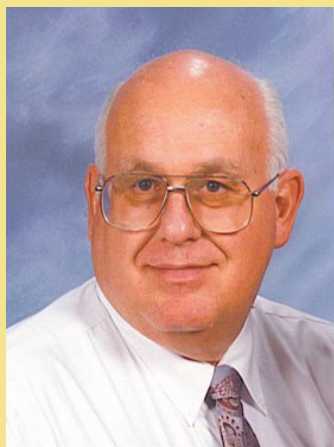
## Animal Health - Prevent Winter Tetany

Poor quality forages alone or in combination with grains can cause mineral imbalances and lead to winter tetany. High levels of potassium (found in molasses, some forages) and phosphorous when coupled with low levels of magnesium and calcium can result in a magnesium deficiency. Angus cattle are most susceptible. Brahman cattle are least susceptible. Stress, such as severe weather, hauling or handling, can induce clinical signs. Lactating cattle are more susceptible. "Winter tetany" can cause clinical

signs identical to "grass tetany," which is sometimes seen in cattle grazing lush winter annual pastures, especially those that were heavily fertilized. These signs are nervousness, aggressiveness, lack of co-ordination, muscle tremors or twitching, and finally seizures and death. Winter tetany can also cause clinical signs identical to "milk fever." These are initially a stiff gait that progresses to weakness and loss of ability to rise. Unlike classic milk fever cases which usually respond to treatment, only about half of winter tetany cases

respond to treatment and are able to rise again. To determine the risk of winter tetany, a tetany ratio can be calculated using the percentage of K, Mg and Ca in the total diet (tetany ratio =  $(K / (Mg + Ca))$ ). If this ratio is above 2.2, winter tetany may occur. A good quality mineral supplement that compliments the rest of the diet should be available free choice. education sites throughout LA,

*Article Written by Christine B. Navarre, DVM, MS, DACVIM  
State Extension Veterinarian*



## Agent/Producer of the Month

### Dave Foster

Director of Market News, LA Department of Agriculture and Forestry

Dave Foster began working for the LA Department of Agriculture in April of 1981. He serves as the director for Market News to provide accurate and unbiased market reports depicting current conditions relating to the trade of livestock, fruit, vegetables, grain, rice, poultry, eggs, pecans and crawfish that will promote orderly marketing and enhance competition.

*FOSTER, continued on Page 2*

# Calf to Carcass Program

## 2007-2008 Louisiana Calf to Carcass Update

More than 40 Louisiana beef cattle producers nominated over 500 head of cattle for the 2007-2008 Louisiana Calf to Carcass Program. The cattle are being fed at Hitch Feedyard in Guymon, Oklahoma. There have been very few sick cattle and pulls so far this year but one calf has died from pneumonia. Dave Foster saw the cattle last week and reports the cattle are looking very good. The weather in Guymon is sunny and in the mid 50s this week. It should be ideal for growth and continued good health.

## December Checklist for Beef Cattle

### SPRING CALVING

- Move heifers into dry, clean pastures and check routinely. First females may begin to calve in late December
- Tag Calves at Birth. Record Birth Day, ID, Dam
- Castrate, Dehorn and Implant Calves
- Check cows often
- Feed requirements begin to increase up to 15% the last 30-45 d before calving. Do not decrease feed to attempt to reduce birth wts. Keep an eye on the BCS of your cows and heifers. If necessary supplement hay with a high protein source to ensure requirements are met

### GENERAL GUIDELINES

- Be very careful with regard to grazing winter annuals. Only graze if grass is 8 inches tall. Do not graze any closer than 4 inches
- Supply a high magnesium mineral if grazing fresh, lush winter grasses
- Evaluate your winter feed supply; although supplemental feed costs are rising, there is still time to buy at a reasonable price. If you hay quality is above 8% protein and 50% energy, this should get you into calving if cows and heifers are in good shape.
- This year much good quality hay is for sale, look at your hay needs and there may be a good deal to be had the fall.

### FOSTER, Continued from page 1

Dave has had a huge influence on the agriculture industry in Louisiana as he has received countless awards and left an everlasting impression on the Louisiana cow/calf business.

Foster, over a 25-year veteran with the USDA, has been instrumental in setting up many agreements such as the agreement between Southern University, USDA and the Agriculture Marketing Service to provide technical assistance to a meat lab at the university.

He has also been an Animal Sciences Marketing instructor at Southern University and conducted many marketing seminars and

live grading demonstrations in conjunction with the Animal Science program at Southern.

Foster initiated the successful Federal-State Marketing Improvement Program at Southern University and numerous grants with USDA, the Louisiana Department of Agriculture and Forestry and LSU.

#### Accolades:

1987 Marker News Reporter of the Year

1992 helped Diana Landry host the NMNA convention

Livestock and Grain Market News

Branch Certificate of Merit, 1992

Livestock and Seed Program EEO Award, 1992

Special Act Award, 1992

Livestock and Grain Market News Branch Certificate of Merit, 1997

31 years with USDA Market News

*Dave will be retiring at the end of the month from the LA Dept of Ag and Forestry. We would like to thank him for all of his hard work and dedication to our state, the beef cattle industry and his work with the LSU AgCenter. Thank you Dave - we wish you the best of luck.*

## Master Cattle Producers Program



The Louisiana Master Cattle Producer program is launching a new series of classes beginning in January, 2008. New to the program are online producer tutorials, various lecture updates and one new class beef production systems. Thus far more than 600 producers have been certified, and we look forward to many more in the coming years. County agents interested in hosting a Master Cattle Producer program should contact Jason Rowntree, [jrowntree@agcenter.lsu.edu](mailto:jrowntree@agcenter.lsu.edu). Producers should contact their local county agent.

It is a commodity-specific program to enhance the profitability of beef producers by equipping them with important information on all aspects of beef production. The program will be provided statewide in various multi-parish areas, and participants will have two years (until June 30, 2009) to complete the programs and become certified. It will allow participants further integration into farm management/marketing components related to beef production. Upon completion of the Master Cattle Producer Program, participants should be better able to increase farm profitability while being environmentally sustainable. Registration fee for the program is \$100, which will cover teaching materials, a meal & refreshments during each session, certificates for

graduates and a sign to display on the farm.

**The Master Cattle Producer Program curriculum consists of 10 three-hour blocks including:**

- Animal Health/Biosecurity
- Nutrition
- Reproduction
- Breeding and Selection
- Animal Handling/BQA
- Pasture Management (Parts I and II)
- Financial Management/Marketing
- Beef Production Systems
- End Product
- 8 hours of Master Farmer Phase 1 Training

*Information provided by  
Dr. Jason Rowntree*

## Cottonseed Meal Improves Beef Cow Performance

Beef cattle feed goes through a microbial fermentation process in the rumen before being digested by the animal. Since the majority of the cow's diet is forage, efficient fermentation of this fiber is critical. Diet supplements provide additional nutrients to improve utilization of the fiber.

Mature forages – generally hay and pastures that provide less than 7 percent crude protein and are below 50 percent digestibility – are low in both energy and protein. Because of these deficiencies, it is often impossible for beef cattle to consume enough of these forages to meet requirements above maintenance. Although mature forages are low in both protein and energy, protein is generally considered the limiting nutrient for improving utilization by the rumen microbes.

Supplemental protein provides the rumen microbes with nitrogen needed to increase fiber utilization. This increases the nutrients the cow absorbs from the forage. In addition, increasing the rate of digestion allows the animal to consume more low-quality forage, giving the animal additional energy.

COTTONSEED CONTINUED ON PAGE 4 AND 5

## COTTONSEED, CONTINUED FROM PAGE 3

Supplemental protein provides the rumen microbes with nitrogen needed to increase fiber utilization. This increases the nutrients the cow absorbs from the forage. In addition, increasing the rate of digestion allows the animal to consume more low-quality forage, giving the animal additional energy.

Supplemental protein improves the digestion of low-quality forages by 5 percent to 10 percent and improves intake by 10 percent to 20 percent. The combination of intake and digestion improvements can increase the value of low-quality forage and meet the maintenance and gestation requirements of a mature beef cow.

### Experimental Procedures

Ninety-six mature cows at the Rosepine Research Station near Rosepine, La., were studied in 2004, and 104 similar cows were studied in 2005 to compare the effect of supplementing cottonseed meal during the last trimester on weight change of cows consuming a mature, low-quality hay. Treatments were: no supplement, 1 pound of cottonseed meal, 2 pounds of cottonseed meal or 3 pounds of cottonseed meal. The cows were randomized into eight groups of 12 cows in 2004 and eight groups of 13 cows in 2005. Then the groups were randomly assigned to receive one of the four supplemental treatments, resulting in two replications of each treatment in each of two years.

Cow groups were maintained in 100-foot by 200-foot pens at the Rosepine Station during the supplementation period. Supplements were fed each morning, and all groups had unlimited access to a low-quality bermudagrass/bahiagrass hay.

Cows were weighed on two consecutive days before the start of the supplemental treatments in

mid-October and approximately one week before the start of the calving season in mid-January. Each cow was assigned a body condition score, using a 1 to 9 scale, on each of these days. Supplementation was continued for each cow until she had calved, at which time the cow and calf were put on ryegrass pasture. Cows were also weighed and assigned body condition scores in April before the next breeding season, in June at the end of the breeding season before the study began as well as in mid-September when the calves were weaned.

Calves were born from mid-February to mid-April. At birth, calves were identified with a numbered ear tag and weighed, and male calves were castrated. Calves were also weighed each time the cows were weighed.

Cows and their calves were moved to an annual ryegrass pasture within 24 hours of calving. After the ryegrass grazing season, the pairs were maintained on bermudagrass and bahiagrass pastures until weaning.

### Results

Cottonseed meal supplementation increased weight gain during the last third of gestation with mature beef cows. Each additional pound of cottonseed meal improved weight gain during the supplementation period. Beef cows should gain approximately 0.9 pound of weight per day during the last one-third of gestation to account for fetal development. Weight gain for fetal development does not add any true weight to the cow and at calving this weight is lost.

Cows fed only hay lost about 90 pounds during the supplementation period; this roughly equals the amount of weight that a cow should gain to account for the increase in weight due to fetal development. Since the forage did not meet the requirement of these cows, the cows used energy stores (body condition)

to provide the nutrients for fetal development. This observation is supported by condition score change during the supplementation period. Cows fed only mature hay had a decrease in body condition of 1.8 units.

Cows supplemented with 1 pound of cottonseed meal essentially maintained their weight; however, they lost more than 1 unit of body condition score. The diet of these cows was not adequate to provide the nutrients for fetal development, thus the cows used body stores to provide nutrients deficient in the diet.

Supplementing 2 pounds of cottonseed meal resulted in a weight gain during the last third of gestation of about 35 pounds. Although these cows were in a positive weight gain, the nutrient level of this diet was not adequate to provide all of the nutrients required for fetal development. These cows lost half a unit of body condition score. Cows supplemented with 3 pounds of cottonseed meal gained close to 80 pounds during the supplementation period. Thus the diet essentially met the nutrient requirements for fetal development. These cows maintained body condition during the supplementation period.

The effect of weight loss due to calving is demonstrated in the weight change from the weight before calving to the weight taken before the breeding season. There was no difference in weight between cows supplemented with 2 or 3 pounds of cottonseed meal before the start of the breeding season; however, cows that received only 1 pound of cottonseed meal weighed less than those receiving the higher level of supplements. This difference in weight was also present at the end of the breeding season. Cows that received only hay were lighter than the other treatments at the start and at the end of the breeding season.

The level of supplementation had an effect on fall pregnancy. There was no difference between cows fed only hay and cows supplemented with 1 pound of cottonseed meal; however, both of these groups had lower fall pregnancy rates than cows supplemented with either 2 or 3 pounds of cottonseed meal. There was no difference in fall pregnancy rates between cows that received 2 or 3 pounds of cottonseed meal.

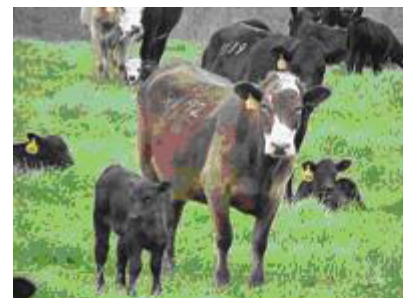
Although not significant, cows receiving no supplement had calves that were three pounds lighter at birth. At weaning, these calves were 35 pounds lighter than cows that received cottonseed meal supplementation. There was no difference in birth weight or weaning weights of calves among cows that received cottonseed meal supplementation.

Producers feeding low-quality or mature hay during the last third of gestation should provide a protein supplement. Each level of cottonseed meal supplementation improved forage utilization. Three pounds of cottonseed meal, however, improved nutrient intake enough to provide the nutrients for cow maintenance as well as for fetal development.

In the end, producers have to consider the relative condition of their cows during pregnancy, the cost of supplemental feeding and the quality of the forage the cows will receive following calving. The value of supplemental feeding is most reflected in the success of breeding the cows for the next season, and the data show that cows that lost the most weight during this study had a much lower pregnancy rate the following season.



Cows were supplemented with different levels of cottonseed meal during the last one-third of gestation. (Photo by David W. Sanson)



After calving, cows and their calves were moved to ryegrass pastures. (Photo by David W. Sanson)

*Article by David W. Sanson  
Associate Professor  
Dean Lee Research Station*

## Louisiana Market Report - Welcoming Taylor Cox to LA

Raised in South-central Kansas on a wheat farm where his family back grounded stocker cattle on wheat pasture, Taylor Cox will join the Louisiana Department of Ag and Forestry replacing Dave Foster's position as Director of Market News.

Taylor is a graduate of Fort Hays State University in Hays, Kansas where he majored in Animal Science. After that, he spent 2 years with Excel/Cargill in Friona, TX before going to work for USDA Market News in St. Joseph, MO. After 1 year in St. Joseph, Taylor has spent the past 5 years in New Holland, PA supervising a livestock and grain market news office.

We would like to welcome Taylor's move to LA with wife Maggie, and two daughters Kille and Kaitlyn.

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