

## **Beef CHAMPS**

Beef Cattle Health and Management Production Strategies

February 2009

United States Department of Agriculture, University of Arkansas, and County Governments Cooperating

### **River Valley Beef Conference Set for Feb. 10**

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“Producing Quality Calves” is the theme for the 2009 River Valley Beef Cattle and KOMA Conference. The meeting is scheduled for Feb. 10, 2009, at the I-40 Livestock Auction in Ozark, Arkansas. Registration will begin at 9:30 a.m.

Sponsored by the University of Arkansas Cooperative Extension Service and Farm Credit Services of Western Arkansas, the conference will cover topics important for profitability in today’s market.

Topics for the program include:

- Factors affecting the selling price of calves.
- Live calf evaluation, demonstrating the factors that influence their market value.
- Live cow evaluation, pointing out desirable qualities for efficient production.

Registration for the program is \$20 at the door. Lunch will be provided at noon, and the program will conclude around 1 p.m.

### **Commercial Agriculture Stocker/Backgrounder Institute to Be Held Feb. 19**

UNIVERSITY OF MISSOURI EXTENSION

Craig Payne, Commercial Agriculture beef veterinarian, has announced the debut of a conference for stocker and backgrounder operators from Missouri and neighboring states. The one-day institute will be held on Thursday, Feb. 19, 2009, at the Harrisonville Community Center in Harrisonville, Missouri.

“Missouri is an ideal location for stocker and backgrounding operations because we have an abundance of pastureland and easy access to the Midwest corn belt and the Great Plains cattle feeding belt,” said Payne. “There are opportunities for Missourians to excel in this endeavor, and there is a need for conferences such as this one to give them the tools to succeed.”

Dr. Justin Sexten, University of Missouri Extension, Commercial Agriculture Program beef nutritionist, and colleague, Joe Horner, beef economist, will give presentations during the morning sessions.

In the afternoon, Mike Nichols, DVM, Pfizer Animal Health, Vega, Texas, will talk about disease dynamics and how to reduce disease challenges. Shaun Sweiger, a veterinary consultant from Edmund, Oklahoma, will discuss treatment protocols for bovine respiratory disease and how data can be used to monitor the effectiveness of the treatments.

Highlighting the Institute will be Tom Gallery of the Gallery Ranch in Bartlesville, Oklahoma – winner of the 2007 National Stocker Award’s

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backgrounding/drylot division. Gallery will discuss the Gallery Ranch operation with an emphasis on how alliance formation and data management have played a role in their success. The Gallerys formally recorded information on note cards. "It wasn't until after the

cattle were gone that we could tally up what had happened. We had no real-time information," says Gallery. He began using management software in 2003 and was amazed at the possibilities from collecting cattle data and analyzing it in a systematic manner.

Registration will begin at 9:30 a.m. with welcome and introductions at 10:00 a.m. Cost for the one-day institute will be \$50. For more information, visit <http://muconf.missouri.edu/stockerinstitute> or contact Christine Pickett at 573 882-4349.

## Cows May Keep Better Time Than You Think

JEREMY POWELL, DVM

It has been well established by scientific studies that cows fed late in the day are more likely to calve during daylight hours. One such study conducted at Iowa State investigated over 2,000 mature cows and heifers that were either fed late in the day (5 to 10 p.m.) or early in the day (before noon). Of the cows fed late in the day, 85% of their calves were born during daylight hours. Yet, only 49.8% of the cows fed in the morning calved during daylight hours. Calving during the day allows a better chance for producer intervention should calving trouble occur, decreasing the likelihood of calf death loss.

Recently, researchers from Kansas State University and the University of Idaho have taken another look at calving time.<sup>1</sup> The researchers were interested in identifying a predictable time of day that a cow would give birth year after year. They investigated approximately 200 spring-calving cows at each location. Cows located at the KSU experiment station were fed each day in the late afternoon (4 to 6 p.m.), and

cows at the University of Idaho location were fed in the early morning (6 to 8 a.m.). During the calving season, researchers recorded time of day each cow gave birth by dividing the day into six separate periods of four hours in duration. The periods were 6-10 a.m., 10 a.m.-2 p.m., 2-6 p.m., 6-10 p.m., 10 p.m.-2 a.m. and 2-6 a.m.

*It seems that even though a cow doesn't wear a wristwatch, Mother Nature keeps her fairly regular year after year.*

Their study results were similar to previous studies in that when cows were fed in the evening, 85.4% of cows calved during daylight hours. However, when cows were fed in the morning, only 52.1% of cows calved during daylight hours. More importantly, results from this study indicated that cows tended to display very little



variation in the time of day they calved from year to year. For cows fed in the evening, the time of day a cow would give birth could be predicted within a two- to three-hour window based on the average time of day she previously calved. However, cows fed during morning hours exhibited greater variability in the time of day they calved each year. It seems that even though a cow doesn't wear a wristwatch, Mother Nature keeps her fairly regular year after year.

<sup>1</sup>Jaeger et al. Pattern of Parturition as Affected by Time of Feeding and Prediction of the Time of Day That Parturition Will Occur in Spring-Calving Beef Cows. 2008. *The Professional Animal Scientist*. 24:247-53.

## Prevent Tetany Before It's a Problem

JEREMY POWELL, DVM

Once cool-season forages begin to reemerge in your grazing pastures, grass tetany can become a potential problem. This disease normally occurs in Arkansas in the months of February, March and April. It is due to an abnor-

mally low level of magnesium in the cow's body.

Factors that commonly occur this time of year, such as rapid forage growth and heavy lactation from spring calving, are the lead-

ing reasons grass tetany occurs. Spring fertilizer application can also increase the potential for grass tetany to occur. Heavy fertilization of grazing pastures, especially with potassium (potash), can in turn inhibit

magnesium absorption in a cow's gastrointestinal system.

Ruminant animals absorb magnesium from the intestinal tract much less efficiently than other species. Furthermore, magnesium (Mg) can become low due to Mg losses in the milk of a lactating cow or due to an increase in the cow's potassium intake. High potassium levels occur in young, rapidly growing forage and can be a problem in cool-season grasses such as fescue or in winter annual cereal grains like wheat and oats.



Weather is another factor that can play a role in grass tetany. Cloudy weather conditions

decrease the plant's ability to utilize magnesium, making it even less available to the grazing animals, so tetany is often observed on cloudy or rainy days.

*Prevention is the key to controlling grass tetany. Dispense a salt-mineral supplement containing at least 10% Mg that can be utilized daily by animals grazing tetany-associated pastures.*

Early signs of tetany include decreased appetite, decreased milk production, frequent urination, separation from the herd, increased excitability as well as a stiff or unsteady gait. These early signs may occur for as little as two to three hours, making early detection difficult. As the disease progresses, an affected cow will lose normal muscle control. This forces the affected animals to lie down, and they become unable to

get up. They will usually exhibit muscle tremors and spasms. If your cattle are not checked often, a dead cow can commonly be the first sign of a problem.

Prevention is the key to controlling grass tetany. This can be achieved by dispensing a salt-mineral supplement containing at least 10% Mg that can be utilized daily by animals grazing tetany-associated pastures. Follow these suggestions.

- Provide 2 ounces of Mg oxide supplementation per animal per day.
- It must be provided on a daily basis because the cow's body has no ability to store up reserves.
- Several mineral feeders should be made available if stocking rates are higher for the herd.

For more information about grass tetany and other cattle management recommendations, contact your county Extension office.

## Planning for a Successful Breeding Season

BRETT BARHAM, PH.D

What tasks need to be done to help assure a successful breeding season this year? There are two sides to this story. Let's start with the bulls.

*With a BSE on all bulls and an RTS on all heifers, you're heading in the right direction toward excellent herd fertility.*

Nationally, about 10% of all bulls fail a Breeding Soundness Examination (BSE) each year, and a similar or greater percentage are marginal breeders. In our 300 days of grazing demonstration herd in Batesville, we leased two bulls for our cowherd. One of those bulls failed the BSE. If a BSE had not

been conducted on those bulls, our calving rates would have been 40-50%. Every dollar counts when trying to make a profit, and this loss of income would have been devastating to the project.

Skipping a BSE on a bull may seem like a good way to cut expenses, but it is not. It may be one of the greatest returns on investment you can make in your herd. Dr. Mark Hilton wrote an article for BEEF magazine and stated this: "If the BSE exam was at an average price and the improvement in fertility was only 3%, the benefit:cost ratio was just over 13:1. Thus, the value of the service was thirteen times greater than the cost."

Visit your local banker today, give him \$1 and tell him you'd

like to get \$13 in return next fall. I think you'll get an odd look. There's no doubt that a BSE is the most cost-effective procedure you can do to ensure bull fertility.

On the heifer side, more and more herds across the country are doing reproductive tract scoring (RTS) on yearling heifers. At about 60 days pre-breeding, these heifers are walked through the chute and palpated to see if the reproductive tract is mature enough for breeding and to see if she is cycling.

Heifers that score 4 or 5 on the five-point scale have a mature reproductive tract and should be excellent candidates as long-term investments for the herd. Heifers that score 1 should receive an invitation to leave the breeding

herd. Implant and ease them onto feed so these infertile heifers can change careers to a feedlot animal.

Heifers that score 2 and 3 are marginal. If you have mostly 4s and 5s, ask yourself, "Why did 75% of the heifers mature to become 4s and 5s, while the other 25% only score 1-3?" After all, they all had the same nutrition and opportunity to become that long-term investment.

Should you feed the entire group more to get that 25% cycling, or sort out the 2s and 3s and feed them more? I recommend doing neither, as you should set

the bar high for inherent fertility. A marginally fertile heifer that's asking for "a little special treatment" is likely to become a late-calving or open cow. Neither option is good for your herd.

If you have a large number of 2s and 3s and almost no 4s and 5s, I'd question the nutrition or genetics. Weigh and frame-score the heifers at the same time as the RTS is performed. If they average 650 lb and frame score 5.2, you likely underfed the entire group from weaning until now. If they're 800 lb and a frame 7, look hard at genetics (and put them in the feedlot where they belong).

What if they're all 4s and 5s? This sounds good on paper, but it may indicate they were all pampered and fed too much since weaning. We really need a few that score 3 and under to be sure we're selecting for inherent fertility and not just overfeeding them.

With a BSE on all bulls and an RTS on all heifers, you're heading in the right direction toward excellent herd fertility. For more information on improving reproductive rates in your herd, please contact your local county extension office.



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