Volume 5, Issue 8

August 2008

Mississippi Beef Cattle Improvement Association

Mississippi Beef Cattle Improvement Association—Productivity and Quality

Upcoming events:

- **August 4—Mississippi Feeder Calf Board Sale, TBA**
- August 7—MAFES Brown Loam Branch Station Field Day, Raymond, MS
- August 26-27—MSU-ES Pasture and Forage Short Course, Mississippi State, MS
- **September 1—Mississippi BCIA Fall Bull Sale nomination deadline**
- October 23-25—MSU Extension Service Artificial Insemination School, Mississippi State, MS
- November 13—Mississippi BCIA Fall Bull Sale, Hinds Community College Bull Sale Facility, Raymond, MS

Inside this issue:

MBCIA Bull Sale Nomination Deadline—September 1, 2008

The nomination deadline for the 2008 Mississippi Beef Cattle Improvement Association Fall Bull Sale is rapidly approaching. Producers considering nominating bulls to the sale are encouraged to contact sale management in August. The 2008 sale is scheduled for Thursday, November 13, 2008 at 12:00 noon at the Hinds Community College Sales Facility in Raymond, Mississippi. Mississippi beef breeders are encouraged to nominate quality bulls that meet all the requirements for the sale.

The Rules and Regulations for the BCIA Bull Sale along with a nomination form and current bull sale information are posted on the BCIA website at *msucares.com/livestock/beef/mbcia/bcia_bullsale.html* and are available through county Extension offices across Mississippi. A minimum adjusted 365-day yearling weight of 1,000 pounds will be required for bulls to meet 2008 BCIA Fall Bull Sale eligibility.

The annual sale will be broadcast live from the Raymond sale site over the Extension distance education system to interactive bidding sites in the Panola County Extension office in Batesville, MS and the North MS Research and Extension Center in Verona, MS. Producers at the remote sites will have the opportunity to view video of the bulls immediately prior to the sale, view and hear the sale live, and bid on bulls from Batesville and Verona.

If you are interested in consigning bulls to this sale, please complete the nomination form and return it to Box 9815, Mississippi State, MS 39762 no later than September 1, 2008. Be sure to include the nomination fee, a signed registration certificate, actual birth weight, and adjusted weaning and yearling weights and ratios for each bull. If you have any questions about the sale, please contact Jane Parish in the MSU Animal and Dairy Sciences Department at 662-325-7466 or jparish@ext.msstate.edu.

New Beef Cattle Extension Publications Available

Throughout 2008 the Mississippi State University Extension Service is developing new and updated producer publications on a wide variety of beef cattle production topics. Completed publications available include:

P2464 - Freeze Branding Beef Cattle
P2484 - Mineral and Vitamin Nutrition for Beef Cattle
P2485 - Growth-Promoting Implants for Beef Cattle
P2486 - Economic Impact of Artificial Insemination vs. Natural Mating for Beef Cattle Herds
P2487 - Mississippi Animal Disease and Disaster Preparedness Program
P2488 - Replacement Beef Heifer Development
P2489 - Fiber in Beef Cattle Diets
P2490 - Beef Cattle Water Requirements and Source Management
P2491 - Expected Progeny Differences and Selection Indices for Beef Cattle Selection
P2501 - Calving Season Selection Considerations
P2505 - Selecting a Feedlot for Beef Cattle Finishing
P2506 - Stocker Cattle Receiving Management
P2508 - Body Condition Scoring Beef Cattle

Contact a local Extension office to request a copy of a specific publication. Publications can also be viewed online and printed from:

msucares.com/livestock/beef/beefpubs.html

Wet Distillers Grains Questions and Answers

Wet distillers grains come in a wet cake form

Can wet distillers grains be trucked very far economically?
The moisture content of wet distillers grains often exceeds 60 percent and can approach 80 percent. This means that the majority of the weight transported for a load of wet distillers grains is water. Do the math.

Do wet distillers grains augur well?
Wet distillers grains come in a wet cake form and require special handling. It is best shipped in truck loads that can be dumped. Traditional auger systems are not practical for handling wet distillers grains.

How long will wet distillers grains store in Mississippi?
Shelf life of wet distillers grains can range from just a few days to several weeks and is extended with cool conditions, preservatives that add to product cost, and air exclusion during storage. Due to the limited storage life, the product must be delivered to livestock within a few days of manufacture. Research data from the Midwest region of the U.S. indicate that untreated wet distillers grains may need to be fed in 4 to 5 days before significant spoilage begins in warm weather. In Mississippi, the practical storage life of wet distillers grains is likely to be reduced to 2 to 3 days during warm weather.

Can wet distillers grains be stored for longer periods if mixed with other feeds?
A potential method to increase wet distillers grains shelf life involves mixing with forages or dry and bulky feeds, packing the mixture, and then covering with plastic or bagging to exclude air. Air must be kept from reaching the feed. Expected storage losses for wet distillers grains are approximately 10%, similar to silage feeds. Detailed storage instructions are available at:
http://beef.unl.edu/byprodfeeds/corn_coproduct_storage_manual_may_2008.pdf

What nutrient composition can be expected from wet distillers grains?
Distillers grains can be excellent sources of both supplemental protein (including rumen bypass protein) and energy for beef cattle diets. However, nutrient content can be highly variable. Distillers grains vary in nutrient content from corn milling plant to plant and also within plants. The only way to be sure of the nutrient composition of wet distillers grains is to test a representative sample at an appropriate analytical laboratory such as the MS Chemical Laboratory. Then livestock diets can be formulated properly.

How much wet distillers grains should be fed to mature beef cattle?
Wet distillers grains should not be offered to livestock free choice. A maximum of 8 to 10 pounds of wet distillers grains per head per day for mature cattle is advised.

Why are sulfur levels a concern when feeding wet distillers grains?
Sulfur levels should be monitored when feeding ethanol co-products including wet distillers grains. Wet distillers grains average approximately 0.7 to 0.8% sulfur, but sulfur content can be highly variable. Care should be taken to make sure that sulfur intake from all dietary sources including water does not exceed 0.4% of the dry matter intake. Excessive sulfur intake can inhibit an animal's ability to properly utilize thiamine and result in polioencephalomalacia in cattle. Cattle suffering from this condition are often called "brainers". Signs can include but are not limited to blindness, inconsistent and uncoordinated movements, head pressing, "goose" stepping, lying with full body contact with the ground with the head and legs extended, muscle spasms, convulsions with paddling motions, and death. These signs usually exhibit sudden onset.

What other mineral concerns exist with feeding wet distillers grains?
Distillers grains are relatively high in phosphorus. When low quality forages are used in combination with distillers grains, the phosphorus to calcium ratio will be high. Calcium supplementation may be necessary to keep the calcium to phosphorus ratio within a 1:1 to 2:1 range in the total diet.

Should moldy wet distillers grains be fed?
If mold develops on feed, the potential for mycotoxin production increases. Avoid feeding moldy feeds to livestock. Moldy feeds are often less palatable to livestock and can negatively impact animal performance and health.

"…Storage challenges exist to avoid spoilage of wet distillers grains, particularly during warm periods."

Beef Improvement Federation 2008 Meeting Highlights

Over 400 beef cattle producers, industry representatives and university personnel met in Calgary last month for the Beef Improvement Federation (BIF) annual meeting and research symposium. Representatives from MBCIA included Jim and Doris Peden, Tommy and Linda Gully, Roy Higdon, Trent Smith, and Justin Rhinehart.

The overall theme of the meeting was "Beef Beyond Borders", a focus on beef production innovations in the United States and Canada. Refining DNA marker technologies, to be used as genetic selection tools, dominated the presentations and discussion around the coffee pot.

While there has been great excitement generated by the development of DNA Marker-Assisted selection tools, many of the people that work closely with the technology realize that it is far from perfect. In fact, most scientists warn that relying too heavily on this tool, and disregarding time-tested methods, can lead to undesired results. The general consensus is that DNA technology should be used as a part of, or supplement to, existing EPD calculations for economically important traits. This is illustrated in the following statement drafted by the BIF Commission:

> *"The BIF Commission believes that information from DNA tests only has value in selection when incorporated with all other available forms of performance information for economically important traits in NCE, and when communicated in the form of an EPD with a corresponding BIF accuracy. For some economically important traits information other than DNA tests may not be available. Selection tools based on these tests should still be expressed as EPD within the normal parameters of NCE."*

The awards for this year's meeting were as follows:

- Commercial Producer of the Year: **Kniebel Farms & Cattle CO.** (Kansas)
- Seedstock Producer of the Year: **TC Ranch** (Nebraska)

Attendees toured a few of Alberta's premier cattle operations including Cattleland Feedyards Ltd. (a 25,000–head feedlot), Soderglen Ranches Ltd. (a cow-calf operation with red and black angus, Simmental, Charolais and two proprietary hybrid breeds) and Hamilton Farms (a 400-cow, 5,000-acre Angus ranch). For many of the participants, the farm tours were the highlight of the meeting because it created a great opportunity to share ideas and management techniques with farmers and ranchers from across North America.

Angus Productions Inc. (API) provided online coverage of the convention. Access is available at **www.bifconference.com.** Content includes summaries of the sessions, proceedings papers, PowerPoint presentations, audio of the speakers' presentations and a photo gallery of the events.

Next year's convention will be April 30th - May 3rd, 2009 in Sacramento, CA. The opening tour will include a visit to Five Star Land and Livestock, a cutting horse demonstration, lunch at Trinchero Family Estates Winery and finally a stop at Duane Martin and Sons Ranch. Another tour after the conclusion will focus on the coastal side of the state with stops at Drake's Bay Family Farms, the Bodega Bay Marine Laboratory and finishes with a wine tasting on the beach. More details on symposium topics will be available later this year.

For more information on this year's convention, a printed copy of the proceedings or for making plans to attend the convention in 2009, please feel free to contact Jane Parish (662-325-7466) or Justin Rhinehart (662-325-7465).

Mississippi BCIA is a state affiliate of the Beef Improvement Federation

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Send questions or comments to Jane Parish or Justin Rhinehart, Extension Beef Specialists, Mississippi State University Extension Service

Visit MBCIA online at http://msucares.com/livestock/beef/mbcia/

MBCIA Membership Application

Name:____

Address:______________________________________

City:____

County:________________ State:________ Zip:________

Phone:________________ Email:____________________

(Check one) Seedstock:____ Commercial:____

Cattle breed(s):__________________________________

Completed applications and $5 annual dues or $100 lifetime dues payable to Mississippi BCIA should be mailed to:

Mississippi Beef Cattle Improvement Association
Jane Parish, Extension Beef Cattle Specialist
Box 9815, Mississippi State, MS 39762

BCIA Genetic Profit Tips — August 2008

Economically Relevant Traits

Economically Relevant Traits, as the name implies, are those traits that have a direct economic impact to the producer. Traits such as weaning weight and carcass weight are ERT because there is a direct monetary value associated with these traits.

Other traits, such as birth weight, do not have a direct economic value associated with them. For instance, an increase in 1 lb of weaning weight increases the producer's income, but a decrease in 1 lb of birth weight does not directly affect the income or expense of a producer. Instead, birth weight is used to indicate the probability of dystocia, or calving difficulty, which does have an economic impact. For this reason, birth weight is not an ERT but is what is called an indicator trait. Newer EPD, such as direct and maternal calving ease, are the ERT for which birth weight is the indicator.

The easiest way to distinguish between economically relevant traits and indicator traits is to ask a specific question about the trait of interest: if that trait changes one unit, either up or down with no changes in any other traits, will there be a direct effect on income or expense? For example, if scrotal circumference increases one centimeter, is there a direct influence on income or expense? A breeder's profitability is likely not changed if the bulls purchased for use in the herd average 1 cm larger. The profitability would come through the genetic relationship of scrotal circumference with ERTs. The primary reason for measuring scrotal circumference in yearling bulls is the relationship with age of puberty in that bulls' daughters. As yearling scrotal circumference increases, those bulls' daughters tend to reach puberty at earlier ages with the assumption that earlier age of puberty in heifers results in increased pregnancy rates at a year of age (Brinks, 1994). In a production system where replacement heifers are chosen from within the herd, one of the primary traits of interest is heifer pregnancy—do the heifers breed at a year of age? Age of puberty is often a large factor in determining whether a heifer becomes pregnant at a year of age, but age of puberty is only one factor involved in heifer pregnancy. In the end, heifer pregnancy is the economically relevant trait, while scrotal circumference is an indicator trait for heifer pregnancy.

For a commercial producer, those traits that directly influence either a cost of production or an income from production are considered economically relevant traits. For seedstock producers, the economically relevant traits are the traits that directly influence either a cost of production or an income from production for their commercial customers. Ultimately these commercial producers are the largest customers of the seedstock industry with approximately 830,880 cow-calf producers relying on 120,000 seedstock producers to supply genetically superior breeding animals adapted to the commercial production system (Field and Taylor, 2003). Those traits not directly related to a cost or income from production are, at best, the indicator traits and at worst superfluous.

Source: National Beef Cattle Evaluation Consortium. 2006. Beef Sire Selection Manual.