

Mississippi Beef Cattle Improvement Association

Mississippi Beef Cattle Improvement Association—Productivity and Quality



Upcoming events:

- December 1—Herd Health Management Short Course, MSU, Biloxi, Oxford, Raymond
- January 20—Mississippi BCIA Spring Bull Sale nomination deadline
- February 10—Mississippi BCIA Annual Membership Meeting, Jackson, 1:00 p.m.
- March 1—Hinds CC Bull Test Sale and Mississippi BCIA Spring Bull Sale, Hinds Community College Bull Sale Facility, Raymond, MS
- March 13—Beef Cattle Handling Facilities Workshop, MSU, Biloxi, Oxford, Raymond
- March 15-17—MSU Artificial Insemination School, Mississippi State, MS

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Herd Health Management Short Course—December 1

The Mississippi State University Extension Service and Mississippi State University College of Veterinary Medicine will offer a Beef Cattle Herd Health Management Short Course on Thursday, December 1, 2011 from 9:30 AM to 3:30 PM at 4 locations throughout Mississippi.

Course Locations

- Bost Theater, Mississippi State University main campus
- Central MS Research and Extension Center, Raymond, MS
- Coastal Research and Extension Center, Biloxi, MS
- Lafayette County Extension Office, Oxford, MS

This short course will cover basic cattle herd health concepts and opportunities to ask questions of veterinarians at each site.

Topics

- What we know about the health of Mississippi cattle
- Diseases of significance for Mississippi cattle operations
- Parasite control
- Vaccination program essentials
- Management practices to keep cattle healthy
- Proper medical management
- Producer question and answer session

The short course brochure is online at:

msucares.com/livestock/beef/beef_calendar.html

This brochure lists the complete schedule of topics with times. A workshop registration form and registration information are also included in the brochure. The short course registration fee is \$35 per person in advance or \$45 per person at the door and covers course materials, refreshments, and lunch.

Both cow-calf and stocker cattle producers can benefit from this workshop. Beef producers interested in attending or with questions about the workshop should contact either:

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or

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MISSISSIPPI STATE
UNIVERSITY
EXTENSION SERVICE





The Beef Improvement Federation (BIF) was formed February 1, 1968. Mississippi BCIA is a member organization of BIF.

BIF: The Beef Industry’s Best Kept Secret

Behind the scenes lies a sleeping giant — the roots of genetic prediction and the resulting expected progeny differences (EPDs) widely utilized by the industry today. The purpose of the Beef Improvement Federation (BIF) is subtle, but ultimately paramount when viewing the impact of genetic selection tools in the seedstock industry.

Benefits of BIF

Catalyst

The BIF serves as an arena to bring members of the cattle industry, scientists and industry affiliates together to address current and future beef cattle topics, particularly in the area of genetic improvement. Simply stated in the introduction of the BIF Guidelines for Uniform Beef Improvement Programs, Ninth Edition, 2010, BIF serves “To develop cooperation among all segments of the beef industry in the compilation and utilization of performance records to improve efficiency, profitability and sustainability of beef production.”

Performance resource

The BIF Guidelines are a widely referenced document that over time has served to guide breed organizations and international communities on performance recording, analysis, interpretation and implementation.

While the Guidelines serve only to be a reference in assisting the beef cattle community and member organizations with performance topics, this resource is a compilation of recommended standard procedures based on scientific research and industry experience. One example of its impact would be conveyed in sections that describe EPDs and their computational algorithms.

Education and outreach

Each year the BIF holds an annual convention and tour at a specific U.S. or Canadian location. The annual convention is typically attended by 400-600 individuals representing various facets of the beef industry.

Recognition

BIF leaders in the commercial and seedstock industry are recognized annually for their commitment, progress and service to beef cattle genetic improvement. Producers learn by example. These industry leaders are showcased at the annual convention and through the BIF website outreach. In addition, service and legacy awards are presented each year to scientists, extension specialists and advocates or ambassadors of the performance message.

Source: Sally Northcutt, American Angus

Mississippi’s Rank Among States for Ag Commodities

Mississippi’s rank among U.S. states for agricultural commodities varies widely by commodity. According to the MS Agricultural Statistics Service, ranking for 2010 was:

Livestock

<u>Commodity</u>	<u>Mississippi Rank</u>
Catfish	1
Broilers	4
Hogs and Pigs	16
Eggs	17
Honey	19
Beef Cows	21
All Cattle and Calves	31
Milk Cows	38
Milk	41

Crops

<u>Commodity</u>	<u>Mississippi Rank</u>
Sweetpotatoes	3
Rice	4
Cotton	5
Peanuts	8
Blueberries	9
Pecans	10
Sorghum for Silage	12
Watermelons	13
Sorghum for Grain	14
Soybeans	14
Corn for Grain	17
Winter Wheat	32
Hay	33
Corn for Silage	40

“...Mississippi ranked 21st among states in 2010 for beef cow inventory.”

Cotton Ginning By-product as a Supplement for Grazing Cattle

A cotton ginning by-product (CPM) was evaluated as a supplemental feedstuff for cattle grazing dormant summer pastures during a 70-day period in 2010. Bales of CPM were a mixture of cotton gin, cotton mote, added protein, molasses and a complete mineral package, and were designed to be a self-fed complete feed for pasture cattle. In this study, CPM was compared to a limit fed diet (DIET) of soybean hull pellets (SBH), dried distiller's grains with soluble (DDGS), and a mineral package.

There were four 8.25-acre pastures per treatment and each pasture consisted of a dormant summer grasses (mix of bahiagrass, bermudagrass, and crabgrass) and were stocked with either 6 or 7 head of crossbred English cattle. All pastures were clipped to a uniform height prior to initiation of the study to equate forage mass. Treatments were CPM fed free choice and SBH/DDGS limit fed at the rate of 1.5% of

body weight formulated to be similar in nutrient profile to the CPM bale. Cattle were stratified by body weight and randomly assigned to pasture.

Cattle fed CPM had greater daily feed intake compared to cattle limit-fed SBH/DDGS (14.31 vs. 10.34 lb, respectively). Nonetheless, cattle fed DIET had greater average daily gain compared to cattle fed CPM (1.68 vs 1.32 lb, respectively). Additionally, cattle fed DIET had more efficient supplement only feed conversion. Nonetheless, due to by product nature of CPM (primarily gin-trash), it was more inexpensive and thereby resulted in a similar cost of gain compared to DIET. Results of the study indicate that limit feeding a mixed ration resulted in greater daily gain and efficiency but did not result in greater cost of gain.

Source: Dr. Daniel Rivera,
MAFES White Sand Unit, Poplarville, MS

"...Cost of gain was similar between calves for the two rations, but average daily gain was greater in the calves limit-fed soybean hulls, dried distillers grains with soluble, and a mineral package."

Genetic Workshop Slides Online

The National Beef Cattle Evaluation Consortium (NBCEC) hosts workshops from time to time covering a variety of beef genetics topics. The slides from these presentations are available online for anytime viewing at:

www.nbcec.org/workshops

Currently, the site includes slides from the following workshops:

Healthfulness of Beef (March 2011)

- Beef production from the point of view of a nutritionist
- Beef production from the point of view of an animal scientist
- Healthfulness project overview
- Meat quality characteristics associated with fatty acid profile differences in beef (phenotypic evaluation)
- Meat quality characteristics associated with fatty acid profile differences in beef (genetic)

- Role of genomics in selection of beef cattle for healthfulness characteristics
- Prediction of fatty acid composition of meat with visible and near-infrared spectroscopy
- Current knowledge, myths, and needs
- Lipidomic profiling: an information rich tool to explore the impact of dietary lipids
- Cardiovascular disease risk factors

Genetics of Reproduction (December 2009)

- Genetic influences on reproduction – Can you breed a good breeder?
- Current genetic evaluations for reproductive traits in the U.S.
- Molecular advancements in reproduction – From hair to calves
- Genetic selection as a tool for battling the decline in reproductive performance: A dairy perspective

National
Beef Cattle Evaluation
Consortium

The NBCEC website contains the latest information on beef cattle genetic research and education at www.nbcec.org

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Send questions or comments to
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Visit MBCIA online at
[http://msucares.com/
livestock/beef/mbcia/](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 life-time 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

Frame Size Effects on Cow Maintenance and Calf Performance

Frame's Effect on Cow Maintenance

For most commercial cattle producers, cow maintenance costs are the major production cost for the cowherd. Larger-framed cattle weigh more at maturity and therefore have higher maintenance needs. These cattle will need to have additional growth genetics to generate increased income to offset the increased cow feed cost. This cost/return balance is important to determine management systems. For example, if larger feeder calves are desired and replacement heifers are retained, it may result in larger mature cows that will increase feed costs, or if feed resources are not increased, the herd's reproductive performance will suffer.

Frame's Effect on Feedlot Performance & Carcass Weight

The growth and development patterns between large- and small-framed cattle appears are similar. Feeding cattle beyond the optimum finish weight will cause increased cost of production through compromised feed efficiency. Beyond this point the cattle are accumulating more body fat and less muscle. Because it requires more feed (energy) to put on a pound of fat than a pound of muscle, the cattle become less efficient. As a general rule, larger-framed cattle tend to grow at a faster rate when striving to reach their optimum heavier finish weight. Therefore, large-framed cattle require greater amounts of feed and have greater expenses due to longer growing periods in the feedyard; however, heavier finish weights will likely generate more income. As long as discounts from

excessive carcass weights or inferior quality grades and yield grades are avoided, producing more pounds of salable product will be advantageous to gross income. The real problem occurs when cattle of varying frames are fed together to a constant endpoint. The average of the group will meet industry needs, but there may be a large percentage of over and under-finished cattle in the group. Grouping cattle according to type going into the feedyard or sorting the cattle out as they finish are essential in producing a uniform, acceptable product.

Performance Differences When Sired by a Large-Framed or a Moderate-Framed Bull with the Same Growth EPD

If two bulls have the same genetics for growth but differ in frame, we would expect the larger-framed bull's calves to be taller at weaning and yearling, the finished calves to be heavier and take longer to feed to optimum finish, and the females to be larger as mature cows. However, because the bulls have the same EPD for growth, we would expect the calves to weigh the same at weaning and as yearlings. If large- and moderate-framed calves weigh the same, then the larger-framed calves most likely have less muscling and/or less body capacity. To put this into perspective, visualize two men who weigh 200 pounds each, and each has the same percent body fat. One man is 6 feet 6 inches, and the other is 6 feet tall. The shorter man is likely to have a thicker build with more muscling.

Source: National Beef Cattle Evaluation Consortium, Beef Sire Selection Manual