

Mississippi Beef Cattle Improvement Association

Mississippi Beef Cattle Improvement Association—Productivity and Quality



Upcoming events:

- September 10—Farm to Feedlot Nomination Deadline
- September 10—Hattiesburg Feeder Calf Sale
- September 13—Cattlemen's Exchange Meeting: Heifer and Bull Development, Verona, MS, North MS Research and Extension Center
- September 14—Cattlemen's Exchange Meeting: Marketing Alternatives, EE Ranches, Winona, MS, 7:30 p.m.
- October 12—Bulls arrive at Hinds Community College Bull Test
- October 16—Beef Cattle Field Day, South Mississippi Experiment Station, White Sand Unit, Poplarville, MS, 9:00 a.m.
- October 21-22—North Mississippi Grazing School, Prairie, MS
- October 22-24—Artificial Insemination Short Course, Prairie, MS
- October 26—Hinds Community College Bull Test begins
- November 11—Fall BCIA Bull Sale, Hinds Community College Sales Facility, Raymond, MS, 12:00 p.m.

Fall 2004 BCIA Bull Sale Update

The Mississippi BCIA annual fall bull sale is rapidly approaching. Breeds of bulls nominated for the sale include Angus, Charolais, Hereford, and Red Angus. All bulls will be screened for structural problems, disposition, and performance and will be guaranteed as breeders. Sale bulls will have passed breeding soundness examinations

and met minimum growth and scrotal circumference requirements as well.

In keeping with MBCIA's continued focus on beef improvement, ultrasound scan data and ultrasound EPDs have been added to the catalog this year. An example catalog listing with ultrasound data appears below.

Lot 10 ANGUS MAFES M S U New Design 1407 3005

Calved 01/15/2003 Tattoo # 3005 Reg. # 14379238

B/R New Design 036
Bon View New Design 1407
Bon View Pride 664
Mr M S U Warlock 9017
Ms M S U 9017 1032
Graham Ruth 79

Trait	Act. Birth	Adj. WW	Adj. YW	Act. REA	Adj. REA	Act. IMF	Adj. IMF	Rib Fat	Rump Fat
Measure	75	527	1156	13.9	13.2	3.84	3.66	0.23	0.39
Ratio		93	105		103		96		
ULTRASOUND EPDs									
Trait	Birth	Weaning	Yearling	Milk	Scrotal	REA	IMF	Fat	
EPD	1.1	.39	.82	.22	-0.30	0.26	0.15	0.015	
ACC	0.30	0.28	0.26	0.23	0.28	0.32	0.33	0.32	

Breeders have the option to collect and report ultrasound scan results on sale bulls. This information will be included in the catalog if provided and can be interpreted as follows. **Act. REA** refers to the area of the ribeye in square inches. **Adj. REA** is the area of the ribeye in square inches adjusted to 12 months of age. **Adj. REA Ratio** is the bull's adjusted ribeye area as compared to his contemporary group. The average ratio of the contemporary group is always 100. **Act. IMF** refers to the percent intramuscular fat (marbling) of the ribeye. **Adj. IMF** is the percent intramuscular fat of the ribeye adjusted to 12 months of age. **Adj. IMF Ratio** is the bull's adjusted percent intramuscular fat as compared to his contemporary group. **Rib Fat** is the fat thickness between the 12th and 13th ribs measured on the same day as IMF and REA. **Rump Fat** is the fat thickness over the rump measured on the same day as IMF and REA.

Ultrasound EPDs will also be provided on sale bulls when available. **REA EPD** is reported in square inches and estimates difference in ribeye area. It is used as an estimator of overall muscling. **IMF EPD** is expressed in percent and estimates differences in intramuscular fat. **Fat EPD** is reported in inches and estimates differences in backfat.

Mississippi BCIA 2004 Fall Bull Sale
Thursday, November 11, 2004
Sale at 12:00 noon
Hinds Community College Bull Sale Facility
Raymond, MS

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Catalogs will be available in October. All bulls will be available for viewing at the Hinds Community College Bull Sale Facility in Raymond, MS starting on the afternoon of November 10. For more information on the BCIA bull sale or to request a catalog, contact Jane Parish or Blair McKinley at 662-325-3516.



Now is a good time to inventory hay supply and test for quality

Fueling the Herd

At the gasoline pumps, there is usually a choice between three different octane levels. The higher the octane, the better the fuel and the greater the performance. Similarly, there are quality differences in cattle fuel. Whether as grazing or hay, cattle fuel in Mississippi consists primarily of forages. Forage test results from nearly 3,400 samples submitted over the last five years from Mississippi livestock producers tell an interesting story about the “octane levels” of forage produced in this region.

Energy Versus Protein

Energy values on forage test results are often reported as total digestible nutrients (TDN). Many factors can lower digestible energy levels in forage. Cool-season grasses such as tall fescue are generally more digestible than warm-season grasses such as bermudagrass and dallisgrass. Cool-season annuals (annual ryegrass, wheat, rye) are typically more digestible than cool-season perennials (tall fescue). Legumes like clovers and alfalfa generally beat out grasses in terms of digestibility. High temperatures tend to increase lignification and lower digestibility in forages as well. Despite all of these factors affecting forage digestibility, the primary culprit that producers can impact is forage maturity. Forage digestibility takes a tremendous hit when forages are allowed to become over mature before cutting or grazing. When digestible energy becomes limiting in beef cattle diets, intake and animal performance can suffer.

It is not uncommon to hear coffee shop bragging about protein levels in hay. Protein is another very important nutrient in beef cattle diets. Young, growing cattle, in particular, need relatively high levels of crude protein in their diets to support muscle growth. Insufficient protein can be a problem on warm-season grasses receiving inadequate nitrogen fertilization, particularly when forage is allowed to become very mature before harvest or when frosted pasture is grazed during winter. Excessive rainfall, like what occurred earlier this summer, can also leach nitrogen from the soil and reduce nitrogen levels available for plant protein

production and animal consumption.

Which nutrient is more likely to be deficient in forage-based beef cattle diets in the Southeast, energy or protein? The answer is energy, and the five-year forage test data supports this. Consider the nutrient demands of a typical 1200 lbs. beef cow. Assuming peak milk production of 20 lbs. per day, this average cow should eat just under 28 lbs. of dry matter each day two months after calving. Her nutrient requirements will be approximately 60% TDN and 11% crude protein on a dry matter basis. While 46.1% of forage samples tested would not have met the crude protein requirements of the cow in this example, a whopping 70.6% of forage samples would not have met the TDN requirements. Five months after her calf hits the ground, this cow will still need enough nutrients to support lactation. Her nutrient needs will be closer to 55% TDN and 8.5% crude protein on a dry matter basis. Only 19.7% of forage samples would not have met this crude protein requirement, but 45.7% would not have satisfied the TDN requirement. In other words, monitoring TDN levels in hay and providing acceptable energy in the entire diet is critical for good cattle performance.

The same cow will have much lower nutrient requirements once her calf is weaned. A dry beef cow seven months after calving will need to consume just over 22 lbs. of daily dry matter with approximately to 47% TDN and 6.5% crude protein on a dry matter basis. The five-year forage test results indicate that most of the forage samples tested would meet these lower dry cow requirements (92.4% of samples would have both adequate TDN and crude protein). In this case, feeding lower quality hay to dry cows and saving the better quality hay for cattle with higher nutrient requirements would be appropriate. Palatability (the acceptability of a feed or forage to the animal) and intake can become an issue with lower quality forages. Make sure that cattle receiving lower quality forages have acceptable levels of intake, and do not hesitate to supplement the diet if needed.

“... monitoring TDN levels in hay and providing acceptable energy in the diet is critical for good cattle performance.”

Fueling the Herd (Cont.)

Forage Testing and Supplementation

By forage testing hay lots, lower quality hay can be identified and allotted to cattle with lower nutrient demands such as dry cows. Cows with calves on their side, thin cattle needing to gain body condition, and growing replacements will benefit from higher quality hay. Supplemental feed resources can then be used more efficiently, lowering feed costs and improving profitability. As the hay production season winds down, now is a good time to forage test hay lots and to start planning for winter feeding. This is also a good opportunity to evaluate hay production practices. Keeping organized records on cutting dates, field ID's, forage types, bale weights, and storage locations makes this easier and more valuable.

Because of the excessive rainfall earlier this summer, it was not feasible to cut many local hayfields before forage maturity became a significant quality problem. There was also potential for significant soil nitrogen leaching. Based on observations of initial hay test results this year, both TDN and crude protein levels will need to be closely scrutinized in hay produced this summer. If a significant portion of available hay is of low quality, then carefully planned winter-feeding and supplementation programs need to be designed this fall to keep feed costs reasonable and cattle performance at desired levels.

So how well does your forage fuel your cattle? Test it to know for sure. For assistance in interpreting forage test results and developing supplemental feeding programs, contact your local Extension office.

“... carefully planned winter-feeding and supplementation programs need to be designed this fall to keep feed costs reasonable and cattle performance at desired levels.”

Mississippi Receives Funding for Animal Identification Projects

In August the U.S. Department of Agriculture awarded \$11.64 million to 29 state and tribal projects to advance the national animal identification initiative. The Mississippi Board of Animal Health received \$153,327 to fund the Mississippi Animal Identification and Implementation Project. Mississippi is also a participating state in the Southeastern Livestock Network which received \$269,093 in funding for the Southeastern Livestock Network Tracking Project adminis-

tered by the Kentucky Department of Agriculture. These are initial projects to test and fine tune national animal identification system implementation. For more information on the National Animal Identification System go to <http://www.aphis.usda.gov/lpa/issues/nais/nais.html> on the USDA website. Transcripts of listening sessions held to discuss the development, structure, and implementation of the national animal identification system are also available on this site.

Beef Cattle Field Day Coming Up in October at Poplarville

The Mississippi Agricultural and Forestry Experiment Station, Mississippi State University Extension Service, MSU College of Veterinary Medicine, and Louisiana State University have joined forces to host a Beef Cattle Field Day at the South Mississippi Experiment Station White Sand Unit near Poplarville, MS. Registration will begin and coffee and doughnuts will be served starting at 9:00 a.m. on October 16. The program kicks off at 9:30 a.m. and will focus on heifer selection and management. A heifer selection competition, ultrasound and pelvic measure-

ment demonstration, and question and answer session are all part of the day's events. Informal viewing of agribusiness equipment and exhibits along with tours of the station will be available for those interested. The program includes lunch and will run through early afternoon. The White Sand Unit is located on Hwy 26, 10 miles west of Poplarville, MS, or 8 miles east of Bogalusa, LA. Call Dr. David St. Louis at 601-795-4525 for further directions or more information about the field day.



Make plans attend the Beef Cattle Field Day on October 16 at the South MS Branch Sta-

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Send questions or comments about this
newsletter to Jane Parish, Extension Beef
Specialist, Mississippi State University
Extension Service



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color, religion, national origin, sex, sexual orientation
or group affiliation, age, disability, or veteran status.

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 Number: _____

(Check one) Seedstock: Commercial:

Cattle breed(s): _____

Completed applications and \$5 annual dues payable to
Mississippi BCIA should be mailed to:

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

BCIA Management Calendar—September 2004

GENERAL

Determine winter supplementation needs based on forage situation. Plan winter grazing and feeding programs evaluating cool-season pasture options and by-product commodity alternatives. Watch commodity prices, and purchase supplemental feed for winter as appropriate. Take inventory of hay, and forage test each hay cutting if not already tested. Store hay to minimize storage losses and allow matching of forage test results with individual lots of hay for use in hay feeding and supplementation decisions. Graze or clip pastures closely where winter annuals will be overseeded before planting. Watch for armyworms, and plant and fertilize cool-season forages. Apply lime as needed. Keep proper free-choice minerals, adequate shade, and clean water available for cattle at all times, and check mineral and water supplies often. Remove fly tags as they become ineffective. Maintain a complete herd health program in consultation with a veterinarian including internal and external parasite control and vaccinations. Continue good production and financial record keeping.

SPRING CALVING—January, February, March

Pregnancy check herd females 60 to 90 days after the end of the breeding season and identify and cull less productive or problem cattle. Prepare for fall cattle working by determining vaccination, deworming, and implant needs and acquiring supplies ahead of time. Check and repair working facilities for weaning. Wean calves based on market and pasture conditions using weaning strategies that minimize calf stress. Monitor herd performance and nutritional status by recording weights and cow body condition scores

at weaning. Implement a nutritional program to get thin cows in proper body condition before next calving. Weigh calves and calculate adjusted weaning weights and ratios. Assess weaning percentage (calves weaned/cows exposed to breeding) and cow efficiency (calf weight/cow weight). Identify and cull bulls that have sired calf groups that are well below the herd average for growth performance and carcass traits. Seedstock producers should send weaning records to breed associations for processing. Use weaning weights to put a heifer selection and development program in action to reach target breeding weights (65% of expected mature weight) by the start of the next breeding season. Heifers will likely need to grow at a rate of 1 to 1.5 lbs. per day. Establish permanent identification (tattoos or brands) for bred heifers that will remain in the herd. Implement calf preconditioning, marketing, or retained ownership plans as appropriate considering seasonal price risks and breakevens on calves.

FALL CALVING—October, November, December

Prepare for fall calving separating the cow herd into calving and nutritional management groups. Cows need to be in moderately good condition prior to calving. Assemble calving supplies including calf identification tags and obstetric equipment. Move fall-calving heifers and cows close to handling facilities and observe cattle frequently. After calving, plan to move cow-calf pairs to clean pasture. Consult with a veterinarian for scheduling pre-breeding vaccination needs. Weigh yearling cattle and calculate adjusted weights and ratios. Prepare for herd sire selection and procurement considering the November BCIA bull sale as a source of bulls with performance information.