

Mississippi Beef Cattle Improvement Association

Mississippi Beef Cattle Improvement Association—Productivity and Quality



Upcoming events:

- April 30-May 3—Beef Improvement Federation Annual Convention, Sacramento Convention Center, Sacramento, CA
- August 3—MS Homeplace Producers Feeder Calf Board Sale, Southeast MS Livestock, Hattiesburg, MS, 7:00 P.M.
- September 1—Mississippi BCIA Fall Bull Sale nomination deadline
- October—MSU Fall Artificial Insemination School, Mississippi State, MS (dates TBA)
- November 12—Mississippi BCIA Fall Bull Sale, Raymond, MS, 12 Noon

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Cattlemen's Exchange Feeder Calf Board Sale Results

The first "Cattlemen's Exchange Producer Sale" was held on April 7th, 2009 in Winona, MS. Beef cattle producers from across the state marketed farm-fresh and assembled stocker cattle in truck-load lots. In this type of auction the cattle are not present at the sale facility. Short video clips of the cattle are posted on the internet, along with a detailed description of health management, for perspective buyers to view prior to the sale. The same video is presented during the auction of its respective lot. Arrangements for delivery from the farm of origin to the buyer's location are made after the sale.

This type of marketing option is extremely efficient for all the parties involved. For example, in this specific sale, more than 2,000 head of cattle were sold in less than an hour. In the 2008 "Mississippi Homeplace Producers' Sale" more than 1,500 head were marketed, also in less than one hour. Together, the receipts from these sales exceeded \$3 million and averaged well above market value for the week of the sale. More importantly, the increase in price for the Homeplace sale was even larger when compared to the MS average market when the cattle were loaded out (Aug.—Oct.).

The following is an excerpt from the USDA market report for the week of the Exchange sale: *"***Board sale was held on Tuesday, April 7th in Winona, MS in cooperation with Mississippi State University extension. 29 pot-loads of cattle sold, all prices quoted per cwt. All sales sold with a 2 percent shrink, and a 5 cent slide. Mixed loads quote steer weight first, followed by the heifer weight. Steer price quoted on the mixed loads, heifers 6 cents back.*



Feeder Steers: Bulk Medium and Large 2: 5 pot-loads 800 lbs 91.00-92.50; 4 pot-loads 825 lbs 90.00; 3 pot-loads 850 lbs 87.00-89.00.

Feeder Heifers: Bulk Medium and Large 2: 5 pot-loads 625-650 lbs 90.75-92.50; 3 pot-loads 700 lbs 88.50-90.50; 4 pot-loads 760 lbs 86.00-88.60; 1 pot-load 820 lbs 83.75.

*Mixed Feeder Steers and Heifers: Bulk Medium and Large 2: 1 pot-load 600 lbs/600 lbs 98.20; 1 pot-load 650 lbs/650 lbs 97.75; 1 pot-load 700 lbs/675 lbs 97.20; 1 pot-load 750 lbs/725 lbs 93.50.***"*

Here are those data (not including split loads) in comparison to the weekly prices at other MS markets:

	Range (\$ / CWT)			
	Wt. Range	Exchange Sale	MS Average	High Diff.
Steers	800-850	87.00-92.50	78.00-85.00	7.50
Heifers	625-820	83.75-90.75	76.00-82.00	8.75

These sales have been successful in bringing together cattle producers and livestock marketers to improve the profitability of both sectors of the beef production chain. Furthermore, the money from these transactions are kept in the pocket of Mississippians rather than letting it flow outside of the state. With this volume of trade, in addition to the anticipated increase, that revenue means a great deal to the local economy it affects.

The "Homeplace Producers' Sale" will be held on Aug. 3rd this year and consignments should be in by June 16th. As always, those interested in taking advantage of this marketing opportunity should contact their local office of the Mississippi State University Extension Service.

MAFES Research—Cottonseed Use for Bull Development



Whole cottonseed is a good source of energy, protein, and fiber for beef cattle

Introduction

Whole cottonseed and cottonseed byproducts are extensively used as sources of energy, protein, and fiber in Mississippi beef cattle diets. Whole cottonseed and other cottonseed-based feed products contain gossypol, a yellow compound that is toxic to non-ruminants and pre-functional ruminants. Some new pelleted cottonseed products are available that could be used with greater handling ease.

Research Objectives

Dr. Rhonda Vann recently conducted a research trial at the Mississippi Agricultural and Forestry Experiment Station (MAFES) Brown Loam Branch Experiment Station in Raymond, Mississippi examining the effects on mature beef bull reproductive performance of including three cottonseed products in a maintenance ration. Ejaculate quality characteristics were evaluated to ascertain any influence of limited cottonseed feeding on semen quality (motility and morphology).

Experimental Procedures

Eighty-four spring-born Angus crossbred bulls greater than 18 months of age were randomly assigned to one of four treatment groups:

- 1) Control (no cottonseed feeding)
- 2) FezzPellet (pelleted cottonseed)
- 3) Whole fuzzy cottonseed
- 4) Cottonseed cake (range cube size pellets)

Animals were fed these diets according to treatments groups at a rate of 5 lbs/head/day for 168 days with free access to bermudagrass hay throughout the study. Bulls were allowed a 14-day diet adjustment period in order to achieve the desired intake of each treatment ration prior to initiation of the feeding trial.

Blood samples for plasma gossypol determination and bull body weights were obtained on days 0, 14, 28, 42, 56, 84, 112, 140, and 168 of the trial. Breeding soundness exams (which included scrotal circumfer-

ence, testis length, testis width, testis depth, and electro-ejaculation for assessment of semen quality) were completed on days 0, 84, and 164 of the research effort.

Research Results

Scrotal circumference, sperm motility, ejaculate volume, and total sperm concentration increased from day 0 to day 168 while secondary sperm abnormalities decreased during this period. There was a day x treatment interaction for total blood gossypol concentrations, bull body weight, average daily gain, and total testes volume.

Total blood gossypol concentrations peaked at day 56 of the feeding trial, remained stable from day 84 to day 168, and by 14 days after removal from feed were back to similar concentrations to day 14 of the feeding period. Overall average daily gain was greatest for bulls in the control and pelleted cottonseed groups.

Conclusions

Bulls consuming cottonseed products derived from upland cotton varieties (produced in Mississippi and surrounding states versus pima cotton varieties produced in the western U.S.) and fed at a rate of 5 lbs/head/day had acceptable body weights, average daily gains, and semen quality. Blood gossypol concentrations can decrease by half 14 days post-feeding of cottonseed products containing gossypol and should be back to baseline within 30 days post-feeding of cottonseed diets.

Source: Dr. Rhonda Vann,
Research Animal Scientist
MAFES Brown Loam Branch Experiment Station
Raymond, Mississippi

Note: Dr. Vann discussed the results of this study with beef producers at the Mississippi Beef Cattle Improvement Association annual membership meeting in February 2009. To contact Dr. Vann with questions about this research, she can be reached at (601) 857-5952 or rcv2@ra.msstate.edu.

"...Bulls consuming 5 lbs/ head/ day of cottonseed products from upland cotton varieties had acceptable semen quality."

NAHMS Beef 2007-2008 Breeding Population Survey Highlights

Approximately three-fourths of operations across all herd sizes described themselves as commercial-cattle-only herds. A higher percentage of operations with 1 to 49 cows than operations with 100 or more cows described themselves as seedstock-only herds. The percentages by type of breeding herd were similar across all regions.

Seedstock cattle were defined as those “primarily marketed for breeding purposes.” At least some operations that market seedstock cattle for breeding purposes are likely marketing crossbred or composite bulls or heifers for replacements. Of operations with any seedstock cattle (23.7 percent of all operations), about one-fourth (26.0 percent) had all purebred cattle; about one-tenth (10.2 percent) had all composite cattle; and about one-third (36.0 percent) had all crossbred (hybrid) cattle. The remaining herds (27.8 percent) had a mixture of purebred, composite, and/or crossbred (hybrid) cattle.

Of operations with any commercial cattle (90.5 percent of all operations), approximately one-half (48.7 percent) had all crossbred cattle. Approximately one-fourth of operations (25.4 percent) had at least some composite cattle, and one-fifth (20.0 percent) had at least one-half their herd comprised of composite cattle. Almost one-third of operations (29.9 percent) had at least some purebred cattle.

Crossbreeding can result in offspring with hybrid vigor. Producers were asked to provide the best description of the breed makeup of the majority of their beef cows. Two-breed crosses accounted for the majority of beef cows on about one-half of operations (44.9 percent). Three-breed crosses accounted for the majority of beef cows on about one-fourth of operations (24.3 percent). The percentage of operations in which purebreds or straightbreds made up the majority of beef cows ranged from 16.1 percent of operations with 1 to 49 cows to 23.9 percent of operations with 200 or more. A higher percentage of operations with 1 to 49 cows than operations with 200 or more cows reported that composite breeds made up the majority of beef cows on the operation.

Across all regions, two-breed crosses accounted for the majority of beef cows on the highest percentage of operations. The West region had a higher percentage of operations in which purebred or straightbred beef cows made up the majority of beef cows, compared with operations in the other three regions.

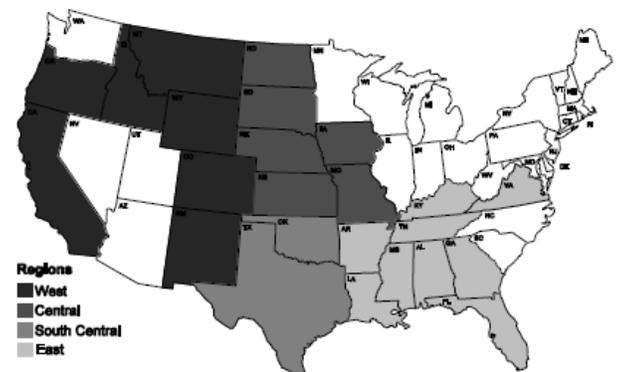
In addition to providing the breed makeup of their cows, producers were asked to give the best description of the breed makeup of the majority of their 2007 calf crop. In general, the breed makeup of the 2007 calf crop was similar to the breed makeup of the breeding cow herd. Two- or three-breed crosses accounted for the majority of the 2007 calf crop on nearly three of four operations (72.7 percent). Across all herd sizes, two-breed crosses accounted for the majority of the calf crop in the highest percentage of operations. These results may indicate that producers are taking advantage of the hybrid vigor associated with crossbreeding. Across all regions, the majority of the 2007 calf crop consisted of two-breed crosses for the highest percentage of operations.

Over one-half of operations (54.9 percent) reported that British breeds accounted for the genetic makeup of all or most of their 2007 calf crop. Fewer than one of five operations (17.9 percent) reported that all or most of their calves were Continental breeds. Nearly four of five operations (79.8 percent) reported that no animals in their 2007 calf crop had Brahman-influenced genetics.

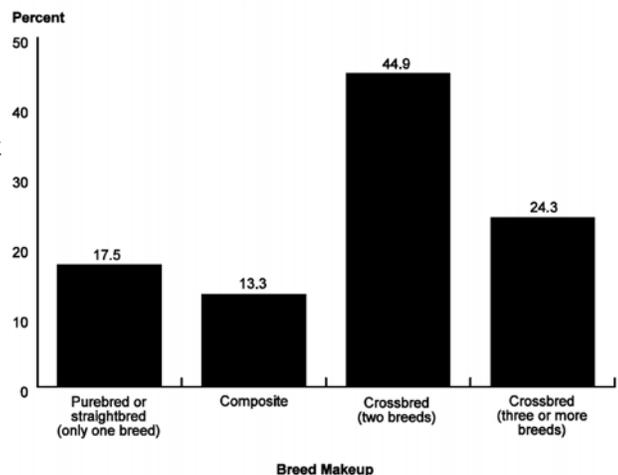
Source: National Animal Health Monitoring System

“...Two- or three-breed crosses accounted for the majority of the 2007 calf crop. Producers are taking advantage of the hybrid vigor associated with crossbreeding”

NAHMS Beef 2007-08 Participating States by Region



Percentage of Operations by Best Description of the Breed Makeup of the Majority of Beef Cows on the Operation



Mississippi Beef Cattle Improvement
Association—Productivity and Quality

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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

MBCIA Genetic Profit Tips – May 2009

Contemporary Groups

Animals within the same contemporary group are alike for all factors that go into the formation of these groups. These factors may differ slightly from association to association and do depend on the trait being analyzed. Table 4 shows the factors that typically go into the formation of contemporary groups for the most common traits.

In order to get accurate estimates of contemporary group effects, it is important not to have single animals in a contemporary group. Producers should try to manage animals as similarly as possible so that many animals are included in each contemporary group. Obviously, there are some situations in which it is impossible to eliminate single animal contemporary groups (i.e., 4-H show steer, sick animal, etc.), but these should be kept to a minimum. If a single animal is in a contemporary group, it is impossible to determine what portion of the performance can be attributed to the non-genetic factors and what portion of the performance is due to genetics. Because of this, the performance of calves from single animal contemporary groups is not included in the calculation of EPD by national cattle evaluation procedures. These animals could, however, receive an EPD from pedigree estimates.

Just like single animal contemporary groups, single sire contemporary groups should be avoided. When a single bull sires all the calves within a contemporary group, it is more difficult to determine how much of the performance is due to the genetics of the sire and how much of the performance is due to the nongenetic factors that are common to that contemporary group.

Table 4. Typical factors used in the formation of contemporary groups.

Trait	Grouping Factors
Birth Weight	Breeder-Herd Code, Year, Season, Sex, Breed Composition, Birth Management Code, Service Type (Embryo Transfer Calves)
Calving Ease Direct	Same as Birth Weight
Calving Ease Maternal	Same as Birth Weight
Carcass Traits	Weaning or Yearling Weight Contemporary Group, Management/ Pen/Feeding Unit, Days on Feed, Harvest Date, Grading Date, Carcass Sex, Date on Feed, Breed of Dam
Feed Efficiency	Weaning or Yearling Weight Contemporary Group, Feed Efficiency Management/Feeding Unit Code, Days on Feed (or Date on Feed), Date Scanned or Harvested, Sex, and Breed Composition
Heifer Pregnancy	Yearling Weight Contemporary Group, Heifer Pregnancy Management Code, Breeding Season Start and End Dates, Exposure, Breeding Pasture, and/or Sire Effect
Mature Cow Body Condition Score	Breeder-Herd Code, Year, Date Measured, Age at Measurement (Years), Breed Composition, and Birth Management Code
Mature Height	Same as Mature Cow Body Condition Score
Mature Weight	Same as Mature Cow Body Condition Score
Stayability	Breeder-Herd Code, Birth Year, Code of the Breeder-Herd in which the cow produced a calf, Breed Composition
Ultrasound Body Composition Traits	Weaning or Yearling Contemporary Group, Management/Feeding Unit Code, Date Scanned, Sex
Weaning Weight	Birth Weight Contemporary Group, Management/Pasture Code, Date Weighed, Weaning Sex, Breed Composition, Service Type (Embryo Transfer Calves)
Yearling Frame Score	Weaning Weight Contemporary Group, Management/Feeding Unit Code, Date Weighed, Yearling Sex
Yearling Weight	Same as Yearling Frame Score

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