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Animal and Dairy Science Department
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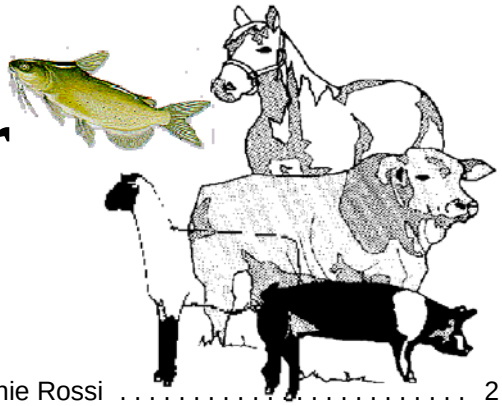
Livestock Newsletter



March/April 2005

http://www.ces.uga.edu/Agriculture/asdsvm/beef-home.html

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Robert L. Stewart
Extension Coordinator
Animal and Dairy Science Department

LIVESTOCK NEWSLETTER

March/April 2005 *AS-1*

47th Tifton Bull Performance and Sale Summary

Johnny Rossi
Extension Animal Scientist

The 47th Tifton Bull Sale was held at the Tifton Bull Evaluation Center in Irwinville on March 2, 2005. A total of 118 bulls sold for an average of $2,303. The was a good crowd with a total of 73 buyers from Georgia, Alabama, Florida, South Carolina, and West Virginia. Sale results are shown in Table 1.

The test consists of a three week warm-up period and an official 112 day high concentrate feed test designed to measure performance. Bulls were born between December 16, 2003 and February 29, 2004. Bulls are eligible for the sale if they finish in the top two-thirds of their breed based upon an index, which is average daily gain on test plus weight per day of age. Bulls must also pass a breeding soundness exam, have a yearling scrotal circumference of 30 cm or greater and be free of any physical defects to be eligible for the sale. The test average daily gain was very good at 4.26 pounds per day. The top gaining bull was an Angus bull that averaged 5.83 pounds per day and was consigned by Bear Creek Angus Farm. Performance data is shown in Table 2.

Table. 2004 Tifton bull sale summary.

Breed	No. Sold	Average
Angus	74	$2,512
Brangus	2	$3,100
Charolais	8	$1,538
Gelbvieh	6	$2,100
Gelbvieh Balancer	1	$1,500
Limousin	1	$2,300
Red Angus	2	$1,700
Shorthorn	1	$1,800
Simmental	22	$1,991
Sim-Angus	1	$2,000
10 breeds	118	$2,303

Table 2. 2004 Tifton bull test performance results.

Breed	No.	On test Wt.	Final Wt.	ADG	WDA
Angus	115	860	1346	4.33	3.48
Brangus	3	897	1392	4.41	3.36
Charolais	12	776	1250	4.23	3.26
Gelbvieh	8	782	1233	4.03	3.32
Gelbvieh-Balancer	1	645	1179	4.77	3.11
Limousin	1	1035	1577	4.84	3.80
Red Angus	3	817	1331	4.59	3.46
Shorthorn	2	785	1246	4.12	3.07
Simmental	32	821	1270	4.01	3.27
Sim-Angus	1	798	1347	4.90	3.48
Averages	178	842	1320	4.27	3.41

How Temperature can Affect Reproduction

Tim Wilson
Extension Animal Scientist-Beef Cattle

To the outsider, herd management may seem complex or even confusing. However, for the most part, basic beef cattle management requires common sense. One area that may be overlooked, but can have a substantial impact on profitability is heat stress.

Cow-calf operations that are on a year-round breeding season may need to address heat stress aggressively. Since many cattle on this type of breeding program will calve and breed during the hottest months of the year, heat stress may be a potential problem. Aside from the fact that calves born during the summer months typically weigh less than their counterparts born during the fall and spring at weaning, their dams may have difficulty rebreeding.

Scientists from South Dakota State University report that excessive exposure to high temperatures and humidity may cause physiological changes to occur resulting in heat stress (Table 1).

Table 1. Physiological Changes that May Occur Due to Heat Stress

- **Increased respiration rate**
- **Increased rectal temperature**
- **Increased water consumption**
- **Decreased weight gain**
- **Decreased activity**
- **Decreased fertility**

(Source: South Dakota State University)

Bulls and cows can suffer infertility due to heat stress. Researchers from Oklahoma State University have demonstrated that as bulls are exposed to elevated temperatures resulting from heat stress, the percent motile sperm decreased from 75-80% to less than 50% in some cases. Bull that undergo breeding soundness exams are required to maintain a sperm motility rate above 70%. Failure to do so would result in the bull receiving an unsatisfactory or classification deferred status.

As with bulls, cows can also suffer reduced fertility due to heat stress. Additional research from Oklahoma State (Biggers, 1986) demonstrates that elevated day temperatures can result in increased rectal temperatures thereby causing reduced pregnancy rates (Table 2).

Table 2. Effects of Imposed Heat Stress on Reproduction in Beef Cows.*

	Control	Mild	Severe
Day Temp. (F)	**71**	**97**	**98**
Night Temp. (F)	**71**	**91**	**91**
R. Hum. (%)	**43**	**27**	**38**
Rectal Temp.	**38.9**	**39.2**	**39.8**
Pregnancy	**83**	**64**	**50**

(Original Source of data: Biggers, 1986; OSU)
(*Table from Cow-calf Corner “Heat Stress Can Reduce Pregnancy Rates”, Dr. Glen Selk, OSU)

Cattlemen can manage heat stress by providing adequate shade. If shade is limited or not available, considerations should be made to provide this prior to the summer months. Cattlemen may also consider reducing stressors associated with the summer months such as fly control.

Producers who breed during the summer months may improve pregnancy rates by simply moving their breeding season to a different time of year. As with any management consideration, careful attention should be given to market parameters and goals. If you have any questions related to heat stress and its effects on reproduction, please feel free to contact you county extension agent or me at (912)681-5639.

2005 GEORGIA JUNIOR NATIONAL LIVESTOCK SHOW

2005 GEORGIA NATIONAL BREEDING EWE SHOW

SHOWMANSHIP

CLASS 1	Ty McDermitt	Colquitt 4H
CLASS 2	Katie Josey	Franklin 4H
CLASS 3	Robert Hibbs	Oconee 4H
Champion Commercial	Kate Josey	Franklin 4H
Reserve Champion Commercial	Lindsay Josey	Franklin 4H
Champion GA Bred & Born	Kate Josey	Franklin 4H
Reserve Champion GA Bred & Born	Lindsay Josey	Franklin 4H
Hampshire Champion	Kristen Clayton	Wilkes 4H
Reserve Hampshire Champion	Kristen Clayton	Wilkes 4H
Champion GA Bred & Born	Kristen Clayton	Wilkes 4H
Reserve Champion GA Bred & Born	Kristen Clayton	Wilkes 4H
Suffolk Champion	Beth Lynn	Tattnall 4H
Suffolk Reserve Champion	Beth Lynn	Tattnall 4H
Champion GA Bred & Born	Beth Lynn	Tattnall 4H
Reserve Champion GA Bred & Born	Dixie M. Jarriel	Tattnall 4H
AOB Champion	Jennifer Dalton	Banks 4H
AOB Reserve Champion	Jennifer Dalton	Banks 4H
Champion GA Bred & Born	Jennifer Dalton	Banks 4H
Reserve GA Bred & Born	Jennifer Dalton	Banks 4H
Supreme Champion	Kate Josey	Franklin 4H
Supreme Reserve Champion	Beth Lynn	Tattnall 4H
Champion GA Bred & Born	Kate Josey	Franklin 4H
Reserve Champion GA Bred & Born	Beth Lynn	Tattnall 4H

COUNTY GROUPS OF 3

1. Franklin 4H
2. Oconee 4H
3. Banks 4H

BEEF GROOMING CONTEST

Division 1	Grades 7- 9 (Individual Competition)	Chandler Aikens - Berrien 4H
Division II	Grades 10-11 (Individual Competition)	Katie Rosenbalm - Dade 4H
Division III	Grades 7-9 (Team Competition)	Tift 4H
Division IV	Grades 10-12 (Team Competition)	Cook FFA

LIVESTOCK QUIZ BOWL

Tift 4H

2005 HEIFER SHOW RESULTS

Showmanship

3rd & 4th Grade	Brandon Webb	Murray 4H
5th Grade	Will Bius	Decatur 4H
6th Grade	Brent Gentry	Perry Middle FFA
7th Grade	Hunter Ballew	Murray 4H
8th Grade	Melissa Lance	Union 4H
9th Grade	Derek Webb	Murray FFA
10th Grade	Austin Atkinson	Jackson 4H
11th Grade	Ashley Cleary	Tift 4H
12th Grade	David Martin	Bulloch 4H

Commercial Division Winners

Division 1 Champion	Jedd Davis	Worth 4H
Division 1 Reserve	Josh Thompson	Colquitt FFA
Division 2 Champion	Ben Perrin	Rabun 4H
Division 2 Reserve	Elise Embrick	Jackson FFA
Division 3 Champion	David Miller	Gordon 4H
Division 3 Reserve	Ward Black	Jackson FFA
Division 4 Champion	Morgan Moser	Henry 4H
Division 4 Reserve	Jeffrey Taylor	Jackson FFA
Commercial Grand Champion	David Miller	Gordon 4H
Reserve Grand Champion	Morgan Moser	Henry 4-H
Angus Champion	Cody Green	Haralson 4H
Angus Reserve Champion	Benjamin Whiddon	Turner 4H
Red Angus Champion	Katie Brown	Franklin 4-H
Red Angus Reserve Champion	Jeremy Herrin	Turner High FFA
Charolais Champion	Trey Harrell	Grady 4H
Charolais Reserve Champion	Taylor Gazda	Oconee 4H
Chi-Influenced Champion	Ethan Armour	Washington/Wilkes FFA
Chi-Influenced Reserve Champion	Hallie Graham	Stephens High FFA

Hereford Champion	Morgan Dinsmore	Franklin 4H
Hereford Reserve Champion	Kallie Johnson	Cherokee 4H
Limousin Champion	Lacy Stephens	Oconee 4H
Limousin Reserve Champion	Adam Arnold	Madison Co. FFA
Maine-Anjou Champion	Henry Davis	Worth Middle FFA
Maine-Anjou Reserve Champion	Jason Thrasher	Oglethorpe Co. FFA
Other Breeds Champion	Sarah Waters	Bulloch 4H
Other Breeds Reserve Champion	Jeremy Dyer	Dade 4H
Shorthorn Champion	Austin Taylor	Cook Co. FFA
Shorthorn Reserve Champion	Lacy Stephens	Oconee 4H
Simmental Champion	Chad Davis	Murray 4H
Simmental Reserve Champion	Steven Cooper	Jackson 4H
% Simmental Champion	Will Bius	Decatur 4H
% Simmental Reserve Champion	Hannah Sullins	Cass Co. FFA

County Groups
1. Jackson County 4H/FFA
2. Tift County 4H
3. Oconee County 4H

Breeder's Group Award:
1. Gazda Cattle Company

2005 STATE MARKET HOG SHOW RESULTS

Barrow Division Winners

Division I	
Champion:	Kristen Story - Turner Middle FFA
Reserve Champion:	Ashley Dodson - Tift 4H
Division II	
Champion:	Evan Royser - Barrow 4H
Reserve Champion:	Haley Gilleland - Ben Hill 4H

Division III

Champion:	Hunter Nelson - Thomas 4H
Reserve Champion:	Malone Thomason - Franklin 4H
Grand Champion Barrow	Hunter Nelson - Thomas 4H
Reserve Champion Barrow	Malone Thomason - Franklin 4H

Gilt Division Winners

Division IV

Champion:	Caitlynne Cannington - Grady 4H
Reserve Champion:	DJ Huff - Oglethorpe 4H

Division V

Champion	Austen Oliver - Wheeler 4H
Reserve Champion	Jennifer Williams - Jeff Davis 4H

Division VI

Champion	Lauren Bruce - Franklin 4H
Reserve Champion	Madison Jackson - Calhoun 4H

Division VII

Champion	Ashley Williams - Jeff Davis Middle FFA
Reserve Champion	Daniel Tribble - Taylor 4H

Division VIII

Champion	Haley Gibbs - Irwin FFA
Reserve Champion	Russell Roberson - Coffee 4H
Grand Champion Gilt	Ashley Williams - Jeff Davis Middle FFA
Reserve Champion Gilt	Lauren Bruce - Franklin 4H

SHOWMANSHIP

3&4 grade	Madison Jackson	Calhoun 4H
5th grade	Haley Cook	Heard 4H
6th grade	Ineisha Ezell	Turner 4H
7th grade	Collin Chandler	Seminole FFA
8th grade	Darren & Derek Cooper	Berrien FFA
9th grade	Brandon Haire	Pelham FFA
10th grade	Mark Lashley	Bainbridge FFA
11th grade	Megan Marchant	Jeff Davis FFA
12th grade	Carlyle Kirbo	Bainbridge FFA

2005 GEORGIA NATIONAL STEER SHOW RESULTS

SHOWMANSHIP

4th & under	Callie Akins	Berrien 4H . .
5th grade	Kelsi Thornton	Wilkes 4H . . .
6th grade	Garrett Brewer	Colquitt FFA
7th grade	Chelsea Brown	Thomas 4H .
8th grade	Danielle Thornton	Washington-Wilkes FFA
9th grade	Carrie Waldrop	Carroll 4H . .
10th grade	Caroline Black	Jackson FFA
11th grade	Ashley Clearly	Tift FFA
12th grade	Matt Holton	Mitchell 4H

SHOW RESULTS

Angus Champion	Reid Diers	Colquitt FFA
Angus Reserve Champion	Brantley Walker	Washington Wilkes FFA
Brahman Influence Champion	Stephen Vaughan	Bartow 4H
Brahman Influence Reserve Champion	Mallory James	Worth Middle FFA
Charolais Champion	Harden Mobley	Colquitt FFA
Charolais Reserve Champion	Jarrod Rowse	Screven 4H
Hereford Champion	Kayla Dobbs	Pickens FFA
Hereford Reserve Champion	Bentley Bagwell	Bartow 4H
Chi Influence Champion	Ryan Moore	Colquitt FFA
Chi Influence Reserve Champion	Henry Davis	Worth 4H
Limousin Champion	Kyle Goldman	Washington Wilkes FFA
Limousin Reserve Champion	Dustin Whittaker	Seminole 4H
Maine Champion	Matt Shirley	Jackson 4H
Maine Reserve Champion	Ben Scott	Coffee FFA
Other Breeds Champion	Steven Linkous	Stephens High FFA
Other Breeds Reserve Champion	Jason Sutton	Colquitt FFA
Simmental Champion	Matt Holton	Mitchell 4H
Simmental Reserve Champion	Landi Clark	Colquitt FFA
Shorthorn Champion	Kelly Tawzer	Franklin FFA
Shorthorn Reserve Champion	Heather Gillman	Worth FFA
Crossbred Division I Champion	Ash Bailey	Decatur 4H
Crossbred Reserve Division I Champion	Maggie Ramsey	Tift 4H

Crossbred Division II Champion	Matt Holton	Mitchell 4H
Crossbred Reserve Division II Champion	Anna Taylor	Cook FFA
Crossbred Champion	Matt Holton	Mitchell 4H
Crossbred Reserve Champion	Anna Taylor	Cook FFA

OVERALL GRAND CHAMPION	Ryan Moore	Colquitt 4H	Chi Influence
OVERALL RESERVE GRAND CHAMPION	Matt Holton	Mitchell 4H	Crossbred

County Groups

1 Colquitt FFA
2 Jackson 4H/FFA
3 Berrien 4H/FFA

Show Breeder's Group

1 Calloway Cattle Company — Heard County

2005 GEORGIA NATIONAL DAIRY SHOW RESULTS

Showmanship

Grade 4	Brooke Helton	White 4H
Grade 5	Clay Porter	Morgan 4H
Grade 6	Haley Valis	Perry FFA
Grade 7	Katie Garrett	Oconee 4H
Grade 8	Amanda Gay	Lincoln FFA
Grade 9	Anna Savelle	Oconee 4H
Grade 10	Katie Williams	Morgan 4H
Grade 11	Amanda Davis	Houston FFA
Grade 12	Heather Foss	Houston FFA

County Groups of Five

1 Houston FFA
2 White County 4H/FFA
3 Morgan County 4H

Show Results

Division 1 Champion	Meredith Franks	Burke 4H
Division 1 Reserve	Ethan Tewksbury	Morgan FFA
Division 2 Champion	Alana Carter	Houston FFA
Division 2 Reserve	Kayla Maughon	Putnam FFA

Division 3 Champion	Amanda Davis	Houston FFA
Division 3 Reserve	Buck Ray	Houston FFA
Division 4 Champion	Heather Foss	Houston FFA
Division 4 Reserve	Anna Savelle	Oconee 4H
Grand Champion	Heather Foss	Houston FFA
Grand Reserve	Amanda Davis	Houston FFA

Dates To Remember:
June 9-11- Southern National Angus show, Perry GA

Beef Cattle Research Update

Dr. Charles McPeake
Extension Beef Specialist

Winter 2005

Summarized by Michigan State University personnel

Following are reviews of research projects recently reported at scientific meetings or in scientific publications. Please feel free to use as you see fit.

Reducing Calf Stress During Transition From Pasture to Feedlot

Scientists at the Lacombe, Alberta Research Centre are conducting some interesting research on strategies to reduce the deleterious effects of various stressors on weaned calves during the transition from pasture to feedlot (transport, handling, nutrition, etc.). They found that initiating a stress response early in the transition period may be of benefit to calves. For calves given a low dose of dexamethasone at time of departure, the weight loss during a 10-hour transport was significantly less than that of control calves (39 vs. 47 lb) transported for the same length of time.

In another initiative, the Lacombe researchers are investigating the development of a “hormone hay” product for feeding weaned calves prior to and/or following transport. They found in the previous trial that when certain important nutrients were added to the diet on top of the dexamethasone treatment there was a further reduction in weight loss (30 vs. 47 lb). However, newly weaned pasture calves will often fail to consume these nutrients when provided in the form of a conventional grain-based feedlot diet. For this reason, attempts are being made to introduce these nutrients into a prepared hay product that would be a more familiar feed to weaned calves (Cook et al. 2004. Lacombe Research Centre Newsletter, Vol. 8, Issue 4, Nov., 2004).

Effects of Morbidity on Performance and Profitability of Grazing Stocker Cattle

The impact of bovine respiratory disease (BRD) on stocker cattle systems has not been studied under extensive range conditions. Three experiments were conducted by Texas A & M Univ. scientists to determine the effects of morbidity of stocker cattle grazing Southern Plains rangelands. Cattle were grazed from April until August, at which time they were marketed.

In Exp. 1 (658 male calves; 509 lb.), 17% of the cattle were treated for BRD at less than 8 days after arrival, 6% from 8-14 days, and 8% of those over 14 days. Calves requiring 14 days of therapy had lower average daily gains (ADG) than did cattle having less than 14 days of therapy (1.45 vs. 1.56 lb).

In Exp. 2 (279 steers and bulls; 476 lb.), ADG of steers was greater for steers than for bulls castrated after arrival (1.63 vs. 1.41 lb). Castration after arrival led to a 10.3% loss in season-long gains. Bulls castrated after arrival had greater morbidity than steers (60% vs. 28%).

In Exp. 3, 633 heifers (553 lb.) were used to determine the effects of morbidity on weight gain and reproduction. Heifers were exposed to bulls from April through August, and marketed as bred heifers. Those requiring two or more treatments gained significantly less than did healthy heifers (0.68 vs.

0.75 lb/day) and had lower conception rates (66 vs. 81%). Morbid heifers conceived 0.6 mos. later than healthy heifers.

Under the conditions of Exp. 1 and Exp. 2, morbidity decreased net returns 9.7 to 21.3% per animal. In Exp. 3, adjusted gross returns per animal for replacement heifers were 3.0 to 7.8% lower for morbid than for healthy heifers.

The results of this study clearly show that morbidity can have a dramatic effect on the performance, reproduction and profitability of grazing stocker cattle (Pinchak et al. 2004. J. Animal Sci. 82:2773).

CARCASS/MEAT SCIENCE

Relationship of Backfat Thickness to Feed Efficiency and Carcass Marbling

It is generally assumed that feed efficiency decreases when gain is composed of fat rather than lean tissue. However, a recent study by John Brethour at Kansas State University's Hays Research Center contradicted this assumption when it was observed in a very interesting study that feed efficiency was the same over a wide range of fat gain (44 to 58% fat gain/empty body gain). Conversion of NEg to fat was 3.98 times more efficient than conversion to protein. However, because the energy cost of lean and fat tissue seemed to be nearly equal, using a single coefficient for predicting gain from NEg is valid regardless of whether gain is predominantly muscle or fat. Much of this equivalency may be explained by the fact that muscle is composed of 73% water and only 22% protein, whereas fat contains only 10% water. Following is a summary of results.

- There was no correlation between ultrasound estimates of backfat thickness on the live animal and future feed efficiency.
- Correlations between average backfat thickness and average daily as well as backfat thickness and dry matter intake were also essentially zero.
- Carcass backfat was a poor predictor of carcass marbling score, even though backfat thickness was an important predictor of percentage of empty body fat.

The authors proposed that selection over time for leaner carcasses with improved marbling may have overridden a relationship between percentage of empty body fat and marbling score (Brethour. 2004. J. Anim. Sci. 82:3366).

Visual Preference of Consumers for Steaks Differing in Marbling Level and Color

Univ. of Nebraska researchers conducted a study of consumers in Chicago and San Francisco (124 per city) to determine visual preference and value for fresh beef steaks differing in marbling level and lean color. Marbling levels were high (Modest/Moderate; Upper 2/3 USDA Choice) vs. low (Slight; USDA Select). Colors were bright, cherry-red vs. dark-red. Consumers selected their preferences and provided the price they would be willing to pay for each of four steaks (2 marbling levels and 2 colors).

- Most consumers preferred low over high marbling (86.7% in Chicago and 67.0% in San Francisco).
- Bright cherry-red color was preferred by a higher percentage of consumers (67.6% in Chicago and 76.5% in San Francisco).

- All preference groups were willing to pay more for their preference. Those consumers who preferred low marbling were willing to pay more for their preference than those who preferred high marbling ($1.12 vs. $0.80 more per lb). Consumers who preferred bright cherry-red color were willing to pay more for their preference than those who preferred dark-red ($0.74 vs. $0.64 more per lb).

The authors noted that consumers who preferred low marbling seemed to desire lean products, and those who preferred high marbling seemed to desire products with high eating quality. This study indicated that consumers are willing to pay more for their preferred product; however, most consumers preferred the visual appearance of low marbling and bright cherry-red color (Killinger et al. 2004. J. Anim. Sci. 82:3288).

Palatability and Value Ratings by Consumers of Steaks Similar in Tenderness But Differing in Marbling Level

This Univ. of Nebraska study was conducted as a part of the study involving visual evaluation of beef steaks that was reviewed previously (see above). The objective was to determine consumer sensory acceptance and value of steaks differing in marbling level (high=Upper 2/3 USDA Choice, and low=USDA Select), but similar in Warner-Bratzler shear force value. Consumers in Chicago and San Francisco (124 per city) evaluated two matched pairs of high- and low-marbled steaks, and had an opportunity to participate in a silent, sealed-bid auction to purchase the same strip loins as the samples they evaluated.

·High-marbled steaks were rated equivalent in tenderness but significantly higher in juiciness, flavor, and overall acceptability than low-marbled steaks.
·Chicago consumers bid more ($0.24/lb) for high-marbled steaks, whereas San Francisco consumer did not.
·Consumers who found high-marbled steaks more acceptable and those who found low-marbled steaks more acceptable were willing to pay significantly more for the product they preferred (range of $1.13 to $1.94 more per lb).

Overall, the results of this study and the one preceding it clearly show that there are markets for more than one kind of beef from a visual as well as a palatability standpoint. Visually, the majority of consumers prefer a low-marbled, bright cherry-red product over a high-marbled, dark-red product. However, when they consume the cooked product, the vast majority prefer more highly marbled beef. The authors concluded that consumers interested in purchasing steaks that will be acceptable in eating quality should perhaps be encouraged to purchase steaks that have higher degrees of marbling than they would normally purchase. It was further noted that education is needed to help consumers identify steaks they will find acceptable in eating quality (Killinger et al. 2004. J. Anim. Sci. 82:3294).

FUTURE TRENDS

Cattle-Fax® recently (Nov. 15, 2004) held their annual Outlook & Strategies Seminar in Denver. Following are brief summaries of their projections.

Short-Term Projections (2005)

- Based upon the expectation that the border will re-open to Canadian fed and feeder cattle:

-Fed cattle prices will average $82 to $83/cwt, with a range from the mid $70's to $90.
-Feeder steer (750-800 lb) prices will average $100 to $102/cwt with highs around $108 and lows at $94 to $95.
-Feeder calf (550 lb) prices will average $115 to $118/cwt.
-U.S. Utility cull cow prices will average $49 to $51/cwt.
-Bred commercial cow prices are expected to peak in 2005 at about $1050.

- Domestic beef demand is expected to be flat in 2005.
- Total net beef supplies are expected to reach a record-high 28.2 billion lb in 2005, driven by a nearly 5% increase in domestic beef production which will be partially offset by larger exports and smaller net imports compared to 2004.
- Choice beef cutout values will decline slightly from 2004's $141/cwt, but will continue to be historically strong at $138.
- Choice/Select price spread will average close to that of 2004 at $9/cwt.

Longer-Term Projections

- Net U.S. beef supplies will continue to set annual record highs through 2008.
- Feeder calf prices are expected to average above $100/cwt through 2007, and then trend back into the high $90s late in the decade.
- Cow/calf returns will average about $140/head in 2005. They will decline in 2006 and 2007, but continue to be well into the positive range.
- Bred commercial cow prices will trend lower from 2005's peak of $1050 to about $900 by 2008.
- U.S. Utility cull cow price will decline to about $45/cwt by 2008.

Continuing Major Trends

·Globilization—Increased Competition
·Retail and Foodservice Consolidation
·Beef Safety—Accountability
·Increased product branding and differentiation
·Accelerated development of new consumer friendly and convenience oriented beef products
·Further advances in value determination for fed cattle
·Capital requirements—who can afford to play?
·Risk management and forward pricing tools?
·Productivity/Technology

Georgia Beef Challenge

Robert L. Stewart and Patsie T. Cannon
Animal and Dairy Science Department
The University of Georgia

The Georgia Beef Challenge was organized in 1991 to allow Georgia cattle producers to gain information on the health, performance, and carcass merit of their cattle. Over the years, thousands of calves from Georgia cattle operations have been evaluated. During that time, we have learned volumes about the genetics of our cattle, both from an individual herd standpoint and how Georgia cattle compare to the rest of the beef industry. Our partners at Tri County Steer Carcass Futurity (TCSCF) in Southwest Iowa continue to do a super job with our cattle.

In 2003 - 2004, 2,030 calves were consigned to the program. Shipments started in May and ended in February. As usual, factors beyond our control influenced the outcome of the Beef Challenge**.** Weather was relatively good for feeding cattle in Iowa. There was a wide range of profitability this year (Table 1). One of the primary factors which affected profitability in the majority of the pens was the action taken by the Georgia Beef Challenge Risk Management Committee. The committee consisted of Turner Callaway, Jim Collins, Mac Hall, Curt Lacy, Bobby Lovett, John McKissick, Bobby Miller, Clay Sims, Frank Thomas, Robert Stewart, and Patsie Cannon. They set a pricing strategy to (1) protect the beginning value of the calves, and (2) to take a $50 per head profit if and when available. Special thanks is due to Jim Collins, Curt Lacy, and John McKissick for their extraordinary work for our program. They organized the breakeven projections, watched the market, and ordered the contracts.

Table 1 – Summary of 2003-04 Georgia Beef Challenge

	No.		Ave. Act.	Ave.	Profit	Cost	Over	Hot				Calc.	
	Of	Death	Carcass	Gross	or Loss	of Gain	all	Carcass	Dress	Fat	Ribeye	Yield	Quality
Feedlot	Calves	Loss	Price	Income	Per Head	$/cwt.	ADG	Wt.	%	Cover	Area	Grade	Grade
Forristall May 03 Heifers	88	0.000%	135.63	1,031.17	(6.70)	58.98	3.52	761	61.4%	0.48	12.5	2.98	67%
Todd Bentley May 03 S + H	15	0.000%	155.07	1,014.15	119.31	59.02	2.84	655	60.6%	0.38	11.6	2.63	60%
SMB June 03 Steers	89	2.247%	144.65	1,039.25	85.81	51.07	3.10	734	61.5%	0.41	12.7	2.67	51%
Forristall July 03 Heifers	30	0.000%	150.55	1,038.40	289.74	56.98	3.13	689	61.1%	0.48	12.8	2.64	93%
Lorimor July 03 Steers	104	4.808%	125.46	911.03	104.91	44.89	3.39	763	61.5%	0.50	12.6	3.06	82%
Gregory August 03 Steers	143	0.000%	130.70	894.89	88.71	66.21	2.69	693	61.5%	0.46	12.1	2.86	67%
Pellettwood Sept 03 Heifers	59	1.695%	130.78	908.65	26.20	52.73	3.60	709	60.8%	0.45	12.6	2.75	93%
Rolling B Oct 03 Steers	212	0.472%	138.55	964.64	75.68	52.65	3.31	700	61.5%	0.51	11.9	3.05	84%
Forristall Sept 03 Heifers	46	2.174%	128.18	863.78	92.67	57.07	2.87	691	61.4%	0.50	11.9	3.03	82%
Bentley East Sept 03 Steers	72	2.778%	130.53	967.18	79.97	53.00	3.25	763	61.3%	0.45	12.5	2.93	84%
Chambers Sept 03 Steers	61	1.639%	130.78	870.72	(14.63)	68.36	2.54	676	60.8%	0.31	11.9	2.41	47%
Todd Bentley Oct 03 Steers	146	2.055%	133.11	968.10	12.12	61.23	3.25	735	61.5%	0.44	11.9	3.00	99%
Todd Bentley Oct 03 Heifers	72	9.722%	134.66	814.77	(35.87)	66.28	2.64	675	61.3%	0.50	11.9	2.94	81%
Todd Bentley Nov 03 Heifers	45	0.000%	137.82	913.79	94.47	58.11	3.14	664	60.7%	0.56	11.2	3.28	98%
Gregory-SC Oct 03 Steers	29	3.448%	138.54	920.67	(23.64)	63.00	2.95	688	61.3%	0.48	11.8	2.95	75%
Chambers Nov 03 Steers	96	0.000%	146.57	1,059.94	115.27	53.70	3.36	723	61.6%	0.44	12.0	2.87	90%
Chambers Dec 03 Steers	106	3.774%	143.00	993.30	11.64	57.86	3.27	722	61.3%	0.39	12.3	2.63	68%
Gregory Oct 03 Steers	179	1.117%	137.97	1,008.22	(4.59)	60.93	3.28	738	61.5%	0.42	12.4	2.78	66%
Bentley East Dec 03 Heifers	80	2.500%	147.20	908.36	13.50	62.38	2.82	652	61.5%	0.48	11.4	2.93	97%
Todd Bentley Dec 03 Heifers	80	3.750%	142.23	918.27	(20.77)	54.71	3.22	670	61.5%	0.47	12.0	2.80	90%
Todd Bentley Dec 03 Steers	144	3.472%	139.49	987.51	43.74	53.66	3.43	733	61.5%	0.44	12.6	2.77	77%
Bentley East Feb 04 Steers	56	0.000%	136.60	1,166.10	115.80	55.18	3.94	854	61.8%	0.41	13.4	2.89	79%
SMB Feb 04 Heifers	37	2.703%	130.75	826.12	1.79	61.74	2.84	649	61.4%	0.45	11.9	2.67	97%
Gregory Feb 04 Steers	41	2.439%	131.80	931.67	46.65	54.97	3.43	725	61.1%	0.39	12.8	2.52	60%
AVES for 2003-04	2,030	2.069%	$137.04	$960.57	$47.46	$57.35	3.20	718	61.4%	0.45	12.2	2.86	78%

Table 1 summarizes the performance, carcass data and profitability for the 2003-2004 Beef Challenge. On average this was a very good year for most phases of the program. A few of the categories were below our targets.

Death loss at 2.069% is below industry averages, but exceeds our desired maximum of 1%. Of the 24 pens on feed, two had death losses over 4% and seven had no loss. The differences were not due to the attention paid by the feeders, rather they reflect differences in preparation of the cattle. We need to continue to pay attention to detail when developing the health history of our calves. Proper vaccination and backgrounding are essential in order to minimize sickness and death. There were a number of reasons for death during the year. By far, the most common reasons were pneumonia, acute pneumonia, or chronic pneumonia. The next common reason was Chronic BRD. The overall average daily gain at 3.20 pounds per day was impressive. One pen had an average of 3.94 with the lowest being 2.54. Other than death loss, performance is the single most important factor in determining profitability.

Carcass traits were also good news for this year's consignors. Average fat cover at 0.45 inches is within the target of 0.40 - 0.45 inches. The industry average is 0.52 inches of fat cover. Average Yield Grade of 2.86 is acceptable but slightly above the target of 2.50 or less. Ribeye area average was 12.2. The pen average range was from a low of 11.2 square inches to a high of 13.4.

Seventy eight percent of the Georgia Beef Challenge carcasses had a Quality Grade of Low Choice or better. The industry goal is 70 percent Low Choice or better. In addition, Table 2 reveals how our cattle grade within the parameters of prime, choice, select, standard, and canner.

Table 2 – Quality Grades for cattle shipped during 2003-04.

Category	No.	Percentage of Cattle Harvested	Percentage of Cattle Shipped
Prime	24	1.2%	1.2%
Choice	1518	77.1%	74.8%
Select	399	20.3%	19.7%
Standard	26	1.3%	1.3%
Canner (stag)	1	0.1%	0.0%
		Total Shipped: 2,030	
		Total Harvested: 1,968	

Table 3 indicates the increasingly important premiums that are added to the base carcass price of our animals.

Table 3 - Premiums added to cattle shipped during 2003-04

Premium	No.	Percentage of Cattle Harvested	Percentage of Cattle Shipped
Prime	24	1.2%	1.2%
CAB	394	20.0%	19.4%
Yield Grade	992	50.4%	48.9%
		Total Shipped: 2,030	
		Total Harvested: 1,968	

For Dress Percentage, 96.1 percent of the Georgia animals harvested were in the window of 57.0 - 64.9 percent. Our overall pen average was 61.4 percent.

Table 4 itemizes the Adjusted Final Weights for the calves shipped during 2003-04. Note 32.5% of animals harvested were from 1,101 - 1,200 lbs.

Table 4 - Adjusted Final Weight for cattle shipped during 2003-04.

Category (lbs.)	No.	Percentage of Cattle Harvested	Percentage of Cattle Shipped
572 – 600	2	0.1%	0.1%
601 – 700	1	0.1%	0.0%
701 – 800	4	0.2%	0.2%
801 – 900	20	1.0%	1.0%
901 – 1000	120	6.0%	5.9%
1001 – 1100	470	23.6%	23.2%
1101 – 1200	647	32.5%	31.9%
1201 – 1300	441	22.2%	21.7%
1301 – 1400	210	10.6%	10.3%
1401 – 1500	63	3.2%	3.1%
1501 – 1565	11	0.6%	0.5%
		Total Shipped: 2,030	
		Total with Final Weights: 1,989	

Note in Table 5 that only 1.2 percent of our animals received discounts due to heavy or light hot carcass weights.

Table 5 - Hot carcass weight discounts taken on cattle shipped during 2003-04.

Category	No.	Percentage of Cattle Harvested	Percentage of Cattle Shipped
Over 950 lbs.	4	0.2%	0.2%
Under 550 lbs.	19	1.0%	0.9%
		Total Shipped: 2,030	
		Total Harvested: 1,968	

Defects were found in 7.9% of the animals. Table 6 gives a summary of the problems. Defects included trim, dark cutter, disposition, horns, lungs, rat tails, one condemned, one stag, one yellow fat, and one bull. All defects represent a deduction straight off the profit of those animals. Even though disposition does not show up as an identifiable carcass trait, it does affect performance and lowers quality grade. In order to address these problems, we must select for disposition in our cow herds; use polled bulls or proper de-horning technique; monitor respiratory problems (pneumonia in a calf can result in trim on a lung at harvest); and use proper castration technique.

Table 6 - Defects noted in 160 out of 2,030 head of cattle shipped during 2003-04

Defect*	No.	Percentage of Total Defects	Percentage of Total Shipped
Total Trim	12	7.5%	0.6%
Dark Cutters	3	1.9%	0.1%
Disposition	44	27.5%	2.2%
Horns	27	16.9%	1.3%
Lungs	60	37.5%	3.0%
Rat Tail	10	6.3%	0.5%
Bull	1	0.6%	0.0%
Stag	1	0.6%	0.0%
Yellow Fat	1	0.6%	0.0%
Condemned	1	0.6%	0.0%
Totals	160	100.0%	7.9%

If an animal had more than one defect listed, then it was included in the category of the first defect listed for that animal. Eleven animals had more than one defect listed.

Table 7 shows the breakdown of the average disposition scores. Note over 85 percent of animals had average disposition scores from 1.0 - 1.8. TCSCF data shows a loss of $68 per head for cattle with disposition scores of 4.0 or higher.

Table 7 - Average disposition scores for cattle shipped during 2003-04.

Category	No.	Percentage of Cattle Harvested	Percentage of Cattle Shipped
1.0	728	36.1%	35.9%
1.3	555	27.6%	27.3%
1.5	166	8.2%	8.2%
1.7	189	9.4%	9.3%
1.8	77	3.8%	3.8%
2.0	134	6.7%	6.6%
2.3	67	3.3%	3.3%
2.4	1	0.0%	0.0%
2.5	21	1.0%	1.0%
2.6	1	0.0%	0.0%
2.7	20	1.0%	1.0%
2.8	9	0.4%	0.4%
3.0	20	1.0%	1.0%
3.2	1	0.0%	0.0%
3.3	7	0.3%	0.3%
3.5	4	0.2%	0.2%
3.6	2	0.1%	0.1%
3.7	2	0.1%	0.1%
3.8	2	0.1%	0.1%
4.0	3	0.1%	0.1%
4.3	1	0.0%	0.0%
4.5	1	0.0%	0.0%
4.7	2	0.1%	0.1%
5.0	1	0.0%	0.0%
		Total Shipped: 2,030	
1 = best and 5 = worst		*Total with Ave. Disposition Scores: 2,014*	

Presently, there are 929 calves (773 steers and 156 heifers) on the 2004-2005 Georgia Beef Challenge. We repeatedly find that our genetics are as good as anywhere in the United States. We firmly believe that data and predictability will be important marketing factors in the years to come. Participants in the Georgia Beef Challenge will be in position to attract attention whatever might happen to the market.

If you have calves you wish to consign, contact your local county Extension Agent or Patsie Cannon at 229/386-3683. They can furnish you with the entry information and preconditioning protocol to get your calves ready. In addition, feel free to access the website at www.tifton.uga.edu/pc-web to view Georgia Beef Challenge information and final reports from last year's pens. An additional website that may be of interest is www.tcscf.com which is maintained by the Tri-County Steer Carcass Futurity Cooperative and Iowa State University Extension.

USDA
Market News Branch
P O Box 86
Thomasville, GA 31799
Tel 912-226-1641

Market News
GEORGIA LIVESTOCK

Agricultural Building
Atlanta, Georgia 30334

WEEK ENDING: 3-25-05 The Cooperative Extension Service would like to thank Terry Harris for submitting this information.

GEORGIA CATTLE: RECEIPTS: 9,200 LAST WK 9,700 YEAR AGO 14,000

FEEDERS	STEERS	MED & LARGE 1	HEIFERS
	142.00-169.00	300/350 LBS	126.00-149.00
	123.00-158.00	350/400	120.00-142.00
	126.00-150.00	400/450	115.00-135.00
	118.00-144.00	450/500	110.00-132.00
	113.00-135.00	500/550	104.00-126.00
	105.00-129.00	550/600	98.00-116.00
	101.00-123.00	600/650	95.00-114.00
	100.00-116.00	650/700	95.00- 106.00

SLAUGHTER COWS	% LEAN		
	75-80%	850-1200 LBS	53.00-60.00
	80-85%	850-1200 LBS	53.00-68.00
	80-86%	OVER 1200 LBS	50.00-58.00
	85-90%	800-1200 LBS	46.00-52.00

5 Area Daily Wtd Average - Texas/Oklahoma; Kansas; Nebraska; Colorado; and Iowa/So Minnesota Feedlots:
Steers...Select/Choice 65-80% Weighted Average Price Range 81.00-82.00
Heifers..Select/Choice 65-80% Weighted Average Price Range

By-Product Drop Value (Steer)...Hide and Offal Value 8.27 /cwt.

Box Beef Cut-Out Value Choice 1-3 550/750 LBS. 135.69
Select 1-3 550/700 LBS. 129.39

Georgia Hogs: GA-FL-AL Direct Area Receipts 4900 Trends 7.00 lower

US 1-2 220/260 LBS. 46.00-48.00 Sows 300/500 LBS. _____ 500-UP_____

FEEDER PIGS	GEORGIA	TENNESSEE		GEORGIA	TENNESSEE
US 1-2 35/40 LBS.			55-60		
40/45			60/65		
45/50			65/70		
50/55			70/80		

IOWA-SOUTHERN MINNESOTA DIRECT HOGS: RECEIPTS _____ TRENDS .88 Lower
BARROWS & GILTS 49-51% LEAN 185 LB CARCASSES RANGE 59.75-68.00 WTD AVG. 66.26