

Cattle Business in Mississippi – April 2008
“Stocker Cents” article

Comparison of Feedlot Performance, Carcass Characteristics and Profit of Calves from the Southeast and Midwest

Justin Rhinehart – Extension Beef Cattle Specialist, Mississippi State University

It is no secret that feeder calves from the southeastern United States are often regarded as inferior to calves originating from other parts of the country. Even though this is completely inaccurate, the stereotype still remains and serves as an excuse to buy calves from some southeastern states at a discount compared to the national market. This discount has been overcome in some states by aggressively pursuing alternative marketing methods that either build a good reputation for their cattle or capture the benefits of proper management and genetic selection through retained ownership.

The most recent nail in the coffin of this misconception comes from a study presented at the Southern Section meeting of the American Society of Animal Science. The study concluded that calves from the Southeast required fewer health treatments during the feeding phase and were \$11.32/head more profitable than calves from the Midwest.

The trial was conducted from 2002 to 2007 by the Tri-County Steer Carcass Futurity (TCSCF) and included a total of 27,538 steers and heifers. There were 15 states represented:

<u>Southeast</u>	<u>Midwest</u>
Mississippi	Iowa
Georgia	Missouri
Virginia	Indiana
Alabama	Illinois
North Carolina	Minnesota
South Carolina	
Tennessee	
Florida	
West Virginia	
Kentucky	

The cattle were fed a common ration in 10 different feedlots in southwest Iowa. Similar implant and health protocols were maintained in each lot. Within four days of arrival, each of the calves were vaccinated, weighed, implanted and body condition scored. A “warm-up” period of 28 to 35 days allowed the cattle to become acclimated to the ration and new environment. After the warm-up period, they were weighed and considered on test.

The first thing that was noticed was that the age and weight at delivery were different for the two regions. The Southeaster cattle were older and slightly heavier than the

Midwestern calves. Morbidity, treatment cost and mortality rates were also different with Southeastern calves lower in each category.

Midwestern calves performed better in the feedlot having a higher overall average daily gain and were heavier at harvest. Some aspects of carcass value also differed between the groups. Midwestern cattle had a larger ribeye area and lower calculated yield grade. There was no difference in percent Choice but a larger percentage of the Southeastern cattle qualified for Certified Angus Beef (CAB).

Effects of region on feedlot and carcass traits

Item	Southeast	Midwest
Number of Head	18,228	9,310
Arrival Wt.*	640	628
Delivery Age (Days)*	324	253
Final Wt.*	1067	1181
Overall ADG*	3.17	3.21
Morbidity Rate*	15.22%	20.76%
Treatment Cost (\$/hd)*	\$5.01	\$7.38
Mortality Rate*	1.43%	1.76%
Hot Carcass Wt.*	723	727
Fat Cover (in)*	0.44	0.42
Ribeye Area (in. ²)*	12.32	12.47
Calculated Yield Grade*	2.84	2.78
% YG 1&2*	58.6	63.5
% YG 3*	39.4	35.9
% YG 4&5*	2.0	1.5
% Prime	1.14	1.01
% Choice	67.94	69.28
% Select	28.33	27.22
% Standard	2.59	2.48
% CAB*	21.57	19.02
Profit (\$ / Head)*	\$48.63	\$37.31

(* indicates statistical difference)

Southeastern calves compared to Midwestern calves were:

- Heavier on delivery (11 lbs.)

- Older on delivery (71 days)
- Health treatments were less (5.5%)
- % Choice or better was not different
- CAB acceptance was greater (2.5%)
- Returns were greater (\$11.32/head)

The argument can be made that the Southeastern cattle represented in this study are managed more intensively than average because producers who retain ownership through the feeding phase are more concerned with practices that improve feedlot performance. However, the same would be true for the Midwestern calves. This makes the comparison and results valid. Furthermore, this illustrates one of the best methods to capture the added value of genetic and health management; retained ownership.