Feedlot Performance and Carcass Traits for Southeast or Midwest Calves

W. D. Busby[1] D. Strohbehn[1], G. D. Fike[2], and M. E. King[2]

[1]Iowa State University, [2]Certified Angus Beef LLC

Tri-County Steer Carcass Futurity (TCSCF)

- 1982 - 35 Iowa consignors - 106 steers
- What is the most profitable steer in the feedlot?
- Ten member board has oversight of cattle fed at 10 different feedlots
- Each year identify problems facing cow-calf producers that they can help solve

Materials & Methods

- N=47,526 steer and heifer calves from 19 states
- Consigned to the Iowa Tri-County Steer Carcass Futurity (TCSCF) from 2002–09
- 19 states represented
  - 7 Midwest states (n=16,371) from IL, IN, IA, KS, MO, NE, OK
  - 12 Southeast states (n=31,155) from AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV
- Minimum 28 day preconditioning period prior to feedlot delivery

Materials & Methods

- Cattle were fed at 18 different feedlots
  - Fed a common dietary energy level
  - Administered similar implant and health protocols
- Depending on distance hauled, vaccinated, weighed, implanted and body condition scored within 4 days of arrival
- Weighed on test after 28 to 35 days on feed
- Disposition scored 3 or 4 times
- Average Daily Gain (ADG)
  - determined from initial weight (within 4 days of arrival) to harvest weight
- Feed to Gain (F:G)
  - determined using the Cornell Net Carbohydrate Model

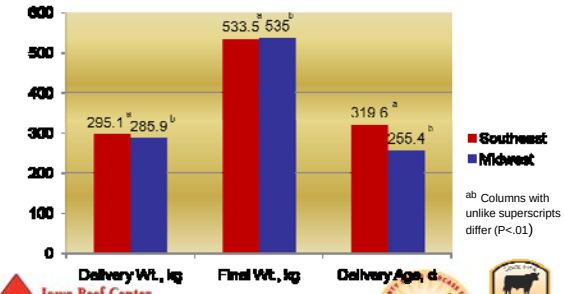
Materials & Methods

- Consignors submitted birth dates, breed of sire and breed of dam information
- Delivery value of calf determined by USDA AMS reporter in home state
- Feedlots recorded health treatments
- All death losses were posted by a veterinarian
- Cattle were harvested when visually evaluated to have 1 cm of external fat cover
- USDA and detailed carcass measures recorded

Materials & Methods

- Lot CAB® acceptance rates was based on the "new" CAB® requirements

Delivery Weight, Final Weight, and Delivery Age in SE vs. MW Calves



[ab] Columns with unlike superscripts differ (P<.01)

Morbidity, Mortality, and Treatment Cost of SE vs. MW Calves

	Region	
Item	Southeast	Midwest
Number of times treated	0.23[a]	0.35[b]
Morbidity rate, %	15.81[a]	22.11[b]
Mortality Rate, %	1.35[a]	1.81[b]
Treatment Cost, $/hd	5.53[a]	8.49[b]

[ab]Values within a row with unlike superscripts differ (P<.0001)

Quality Grade of SE vs. MW Calves

	Region	
Quality Grade	Southeast	Midwest
% Prime	1.08[a]	0.8[b]
% CAB	18.43[a]	16.91[b]
% Choice	65.26[a]	67.27[b]
% Select	30.99[a]	29.41[b]
% Standard	2.68	2.52

[ab]Percentages within a row with unlike superscripts differ (P<.01)

Feedlot Performance and Profitability of SE vs. MW Calves

	Region	
Factor	Southeast	Midwest
ADG, kg/d	1.45	1.45
F:G, kg/kg	6.92[a]	6.76[b]
Cost of gain, $/kg	1.399[a]	1.382[b]
Days on feed	166.6[a]	173.8[b]
Age at harvest, days	487.5[a]	430.5[b]
Profitability, $/hd	37.34[a]	23.79[b]

[ab]Means within a row with unlike superscripts differ (P<.0001)

Conclusions

- Southeastern vs. Midwestern calves:
  - Were older and heavier at delivery
  - Had fewer health problems
  - Had similar ADG
  - Had higher CAB® acceptance rate
  - Were more profitable

Iowa Beef Center
Iowa State University