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Calf Value Discovery Program: 1999 - 2000

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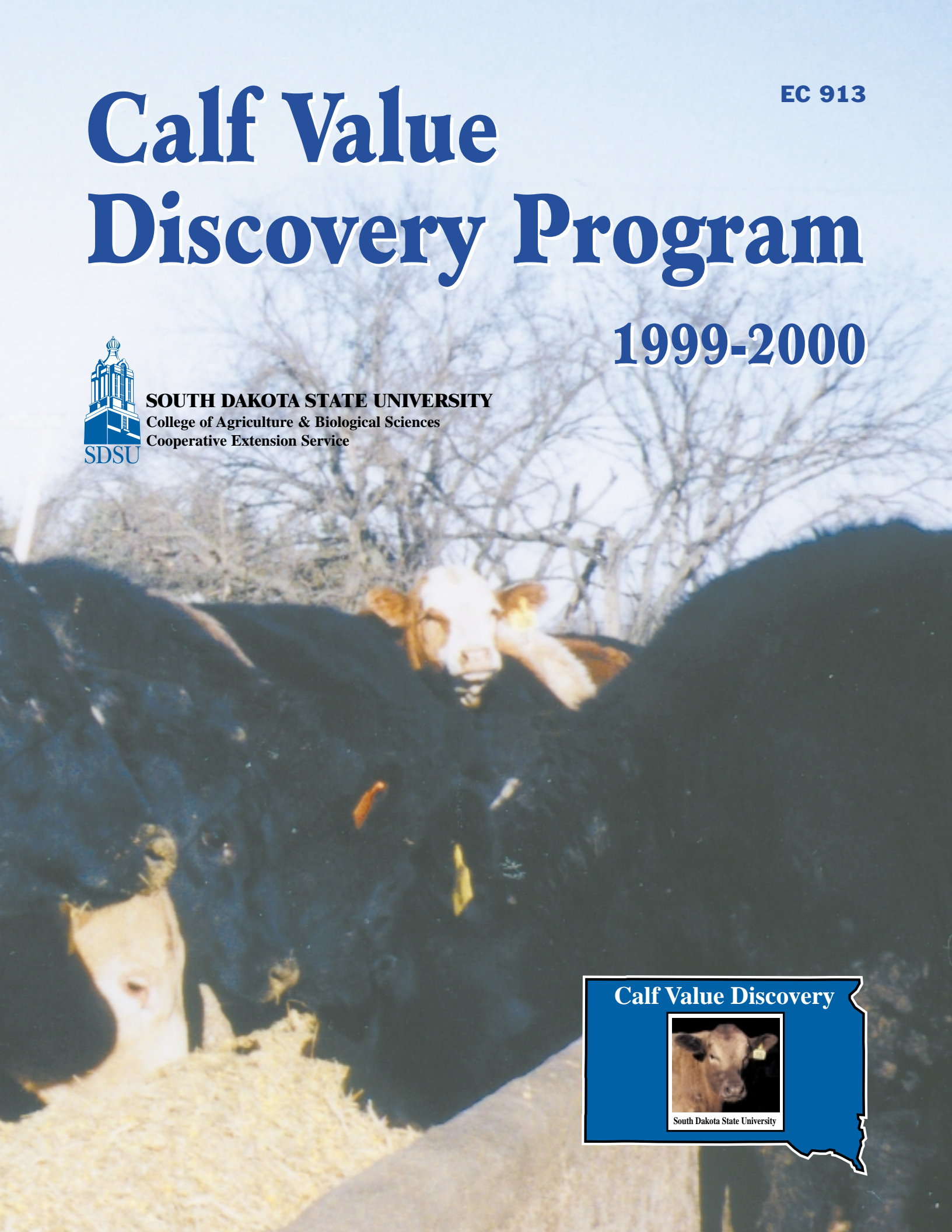
EC 913

Calf Value Discovery Program

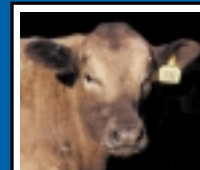
1999-2000



SOUTH DAKOTA STATE UNIVERSITY
College of Agriculture & Biological Sciences
Cooperative Extension Service



Calf Value Discovery

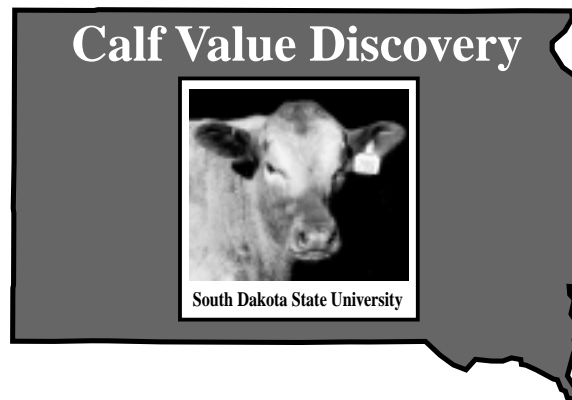


South Dakota State University

CALF VALUE DISCOVERY

A feedlot performance and carcass data collection program conducted by South Dakota State University that enables producers to analyze their

- management strategies
- herd health programs
- genetics



1999–2000 CALF VALUE DISCOVERY PROGRAM SUMMARY REPORT

Forty producers with 316 entries participated in the second year of the Calf Value Discovery (CVD) information-gathering program. Calves were fed at VanderWal Yards, Bruce, and VanderWal Farms, Volga.

Steers entered the feedlot November 4 and 5, 1999, at VanderWal Yards and November 19 and 20, 1999, at VanderWal Farms. Upon arrival, steers were vaccinated with Bovashield 4, One Shot Pasteurella, and 7-Way Clostridial. Steers were also eartagged and weighed, and blood was drawn to test for titers.

All steers were fed in the same pen at each location. Steers were implanted twice at both locations. At VanderWal Yards, steers were implanted with Synovex-S 25 days after arrival and with Revalor-S approximately 100 days prior to harvest. At VanderWal Farms, steers were implanted with Ralgro if they weighed less than 650 lb at arrival or Magnum if they weighed more than 650 lb at arrival. Steers at VanderWal Farms were reimplanted approximately 100 days prior to harvest with Magnum. After 35 days on feed, calves were placed on an accelerated-finishing program which contained 0.60 mcal NEg/lb and 12.5% crude protein on a dry matter basis. Steers were marketed when they reached acceptable weight and finish standards.

All carcass and performance information was returned to the producer along with a financial summary.

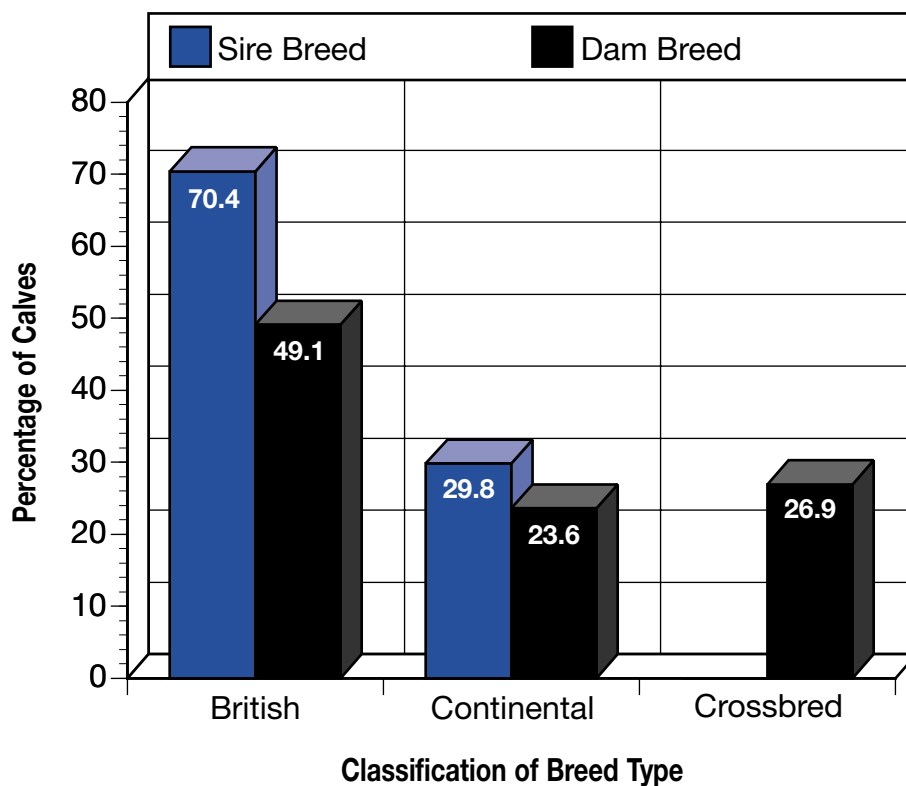
DISCOVERY PROGRAM

1999-2000 CALF VALUE DISCOVERY PROGRAM

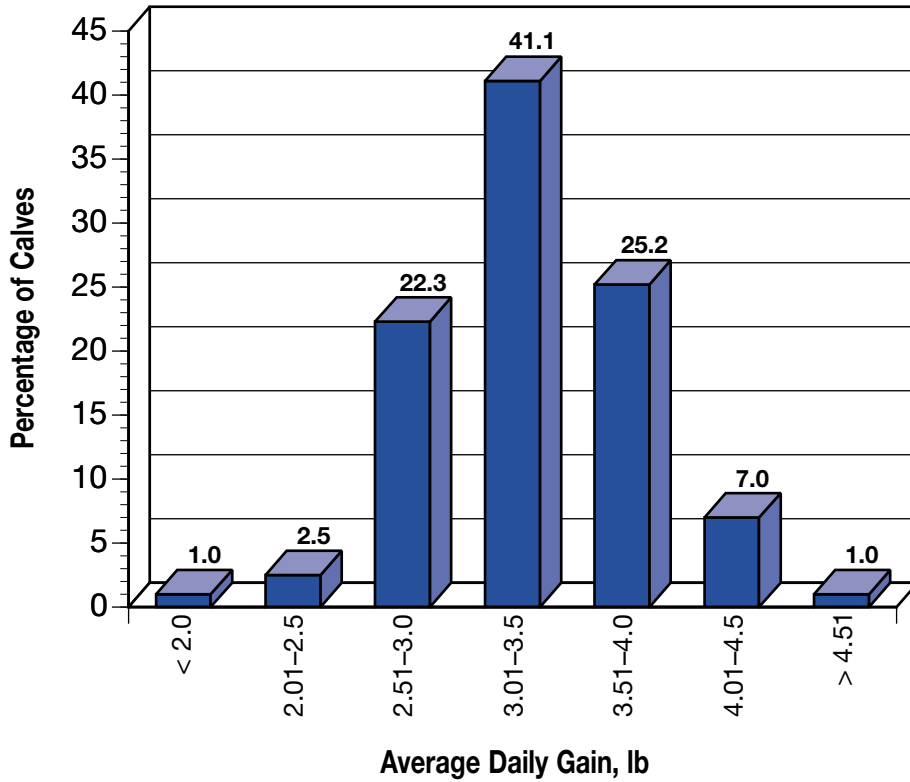
Head In	316
Head Out	314
In Weight	596
Out Weight	1266
DOF	203
F/G (pen)	6.55
Total Cost of Gain (\$/cwt)	39.32
Feed Cost of Gain (\$/cwt)	26.27
HCW	781
Price (\$/cwt HCW)	\$111.04

BREEDS REPRESENTED

A range of genetics was represented in the program and included 12 different sire breeds/combinations and 57 different dam breeds/combinations.



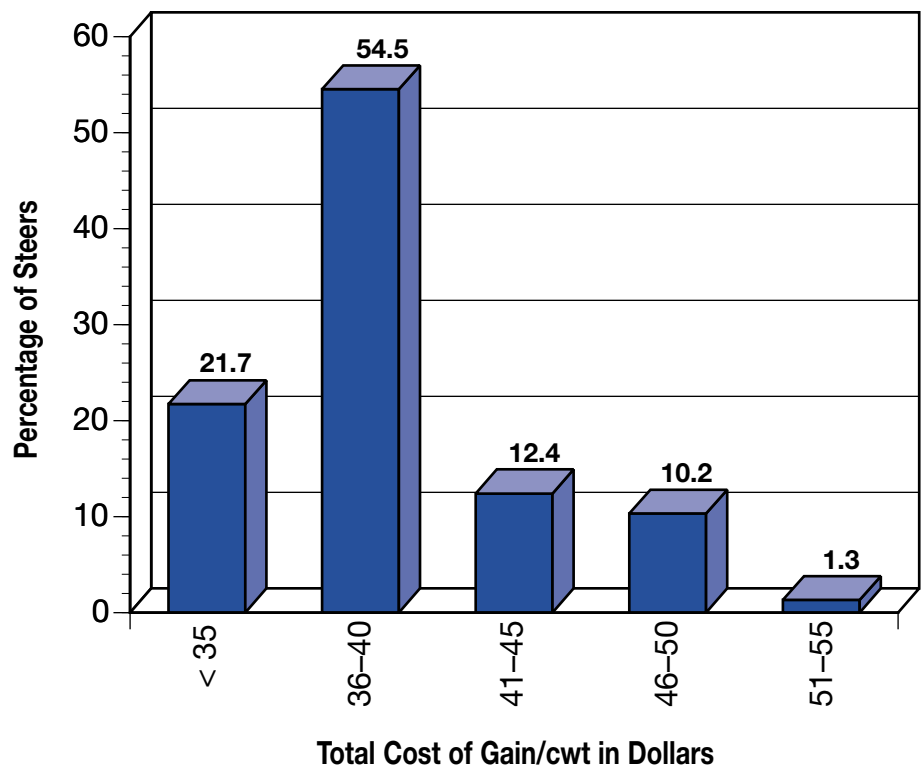
CUMULATIVE AVERAGE DAILY GAIN



Weights used to calculate gain were **in weight** (weight taken upon arrival) and **pay weight** (weight taken before slaughter, with a 4% pencil shrink). The average in weight was 596 lb, with a standard deviation of 89 lb. Average out weight was 1266 lb with a standard deviation of 91 lb. Average daily gain was 3.33 lb/day with a range of 1.96 to 4.63 lb/day. Ninety-seven percent of the steers gained more than 2.51 lb/day.

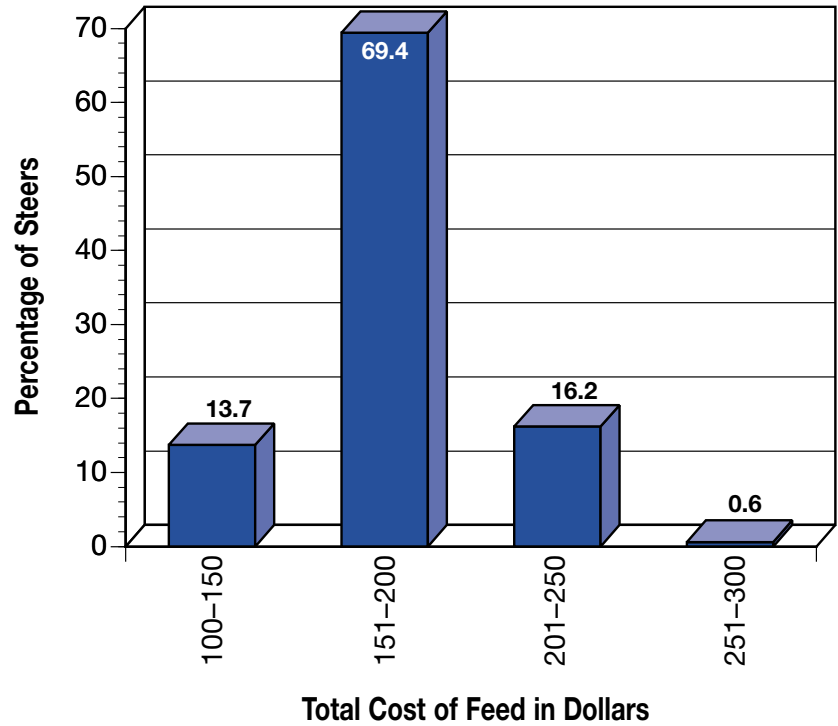
TOTAL COST OF GAIN PER CWT

The total cost of gain per cwt ranged from \$29.41 to \$54.02 with an average of \$39.32.

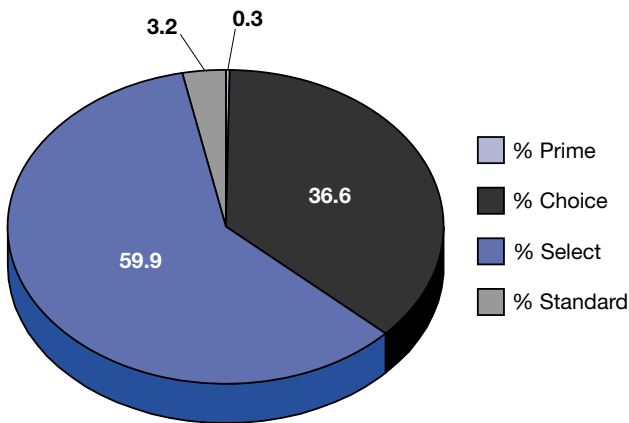


Feed cost is the total dollars of feed per steer. Feed cost averaged \$175.89 and ranged from \$100.93 to \$256.00.

FEED COST

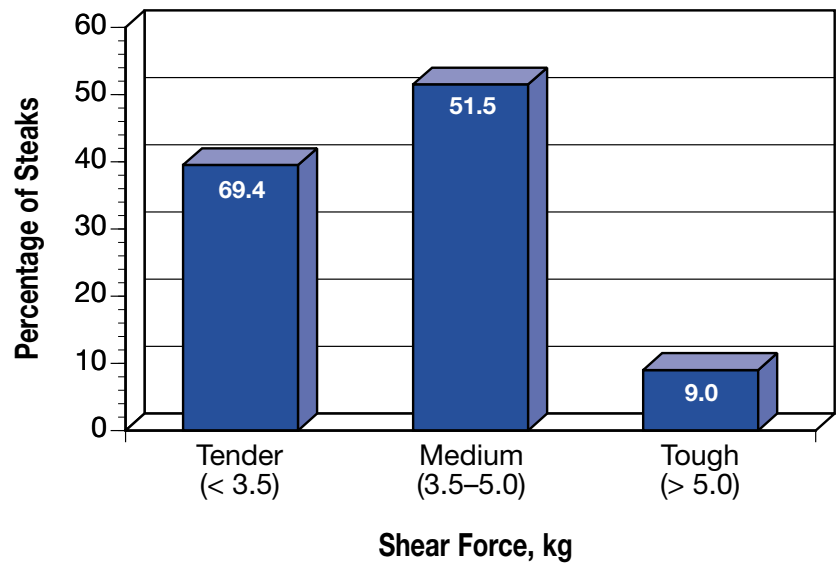


USDA QUALITY GRADES



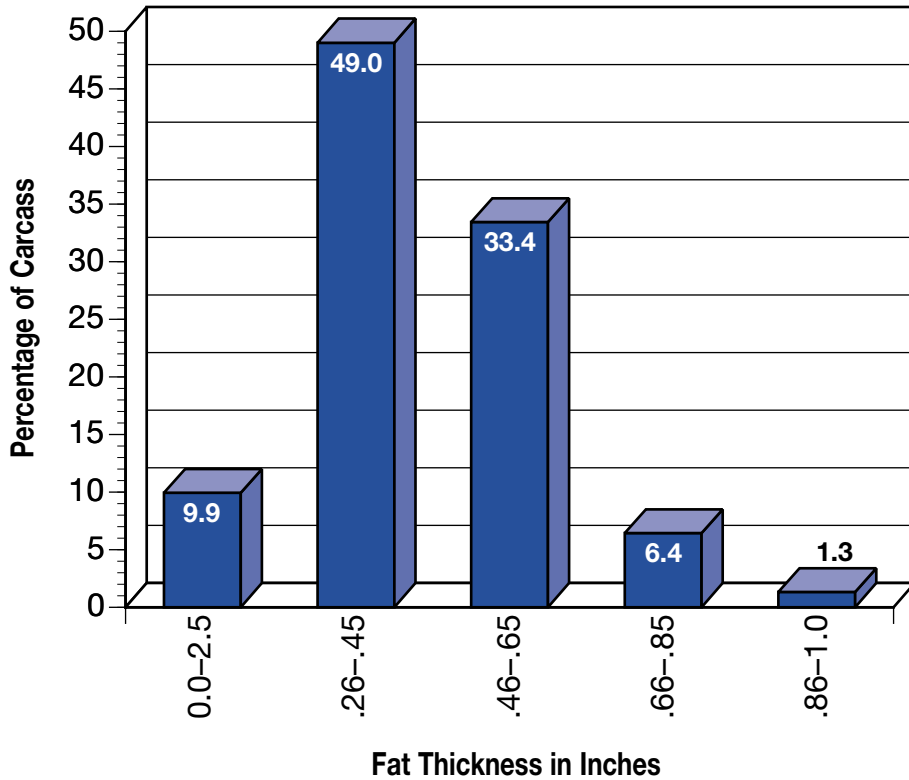
Of all steers, 37% graded choice or higher, 59.9% graded select, and 3.2% graded standard.

WARNER-BRATZLER SHEAR FORCE



After the steers were marketed, a portion of the longissimus dorsi was removed from the carcass. Warner-Bratzler Shear Force was performed on a rib steak to determine tenderness. The steak was classified as tender, medium, or tough based on the amount of force required to shear it.

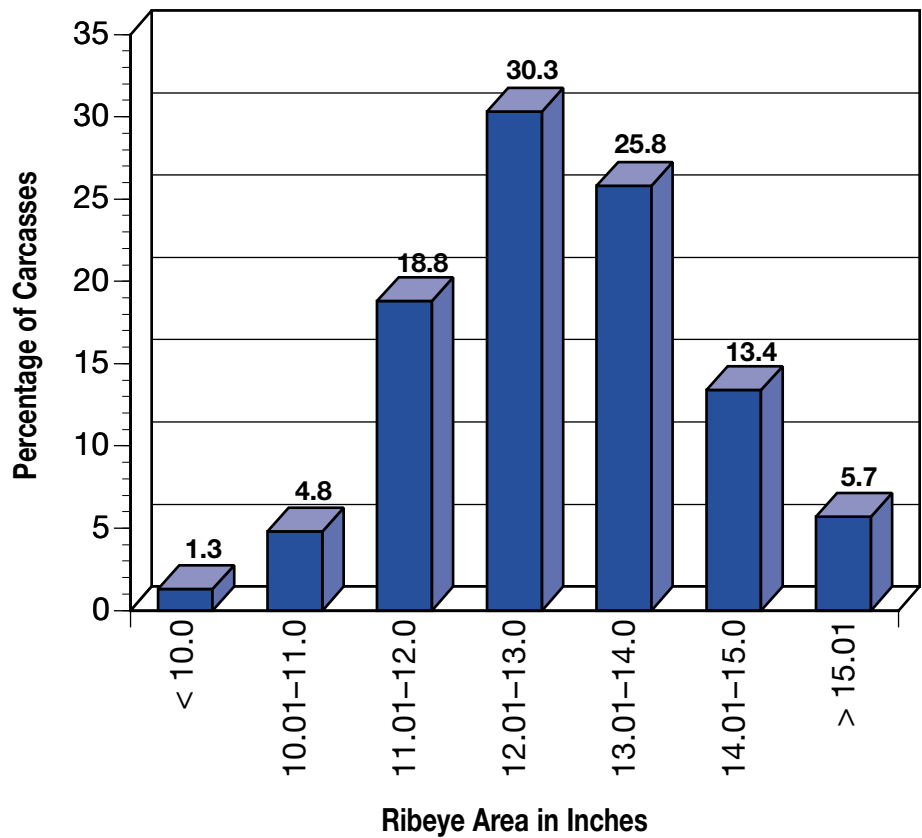
12TH RIB FAT THICKNESS



◀ Average 12th rib fat thickness was .43 inches with a range of 0.1 to 1.0 inches of backfat. Forty-nine percent of the carcasses were within the range of .26-.45 inches of external fat; this is ideal to have acceptable yield grades. Fat thickness is an important measure as it is inversely related to retail yield.

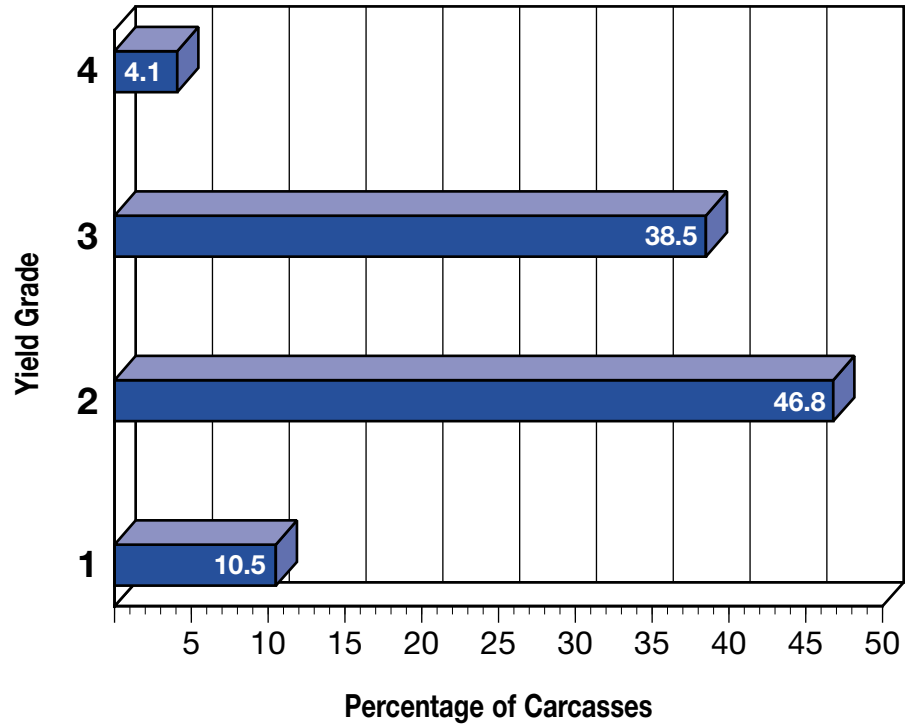
▶ The range in ribeye area was from 9.1 to 18.9 sq inches with the mean of 12.9 sq inches. Seventy-five percent of the steers had a ribeye area of more than 12 sq inches. A typical ribeye area would be equivalent to 1.75 sq in/cwt of carcass.

RIBEYE AREA

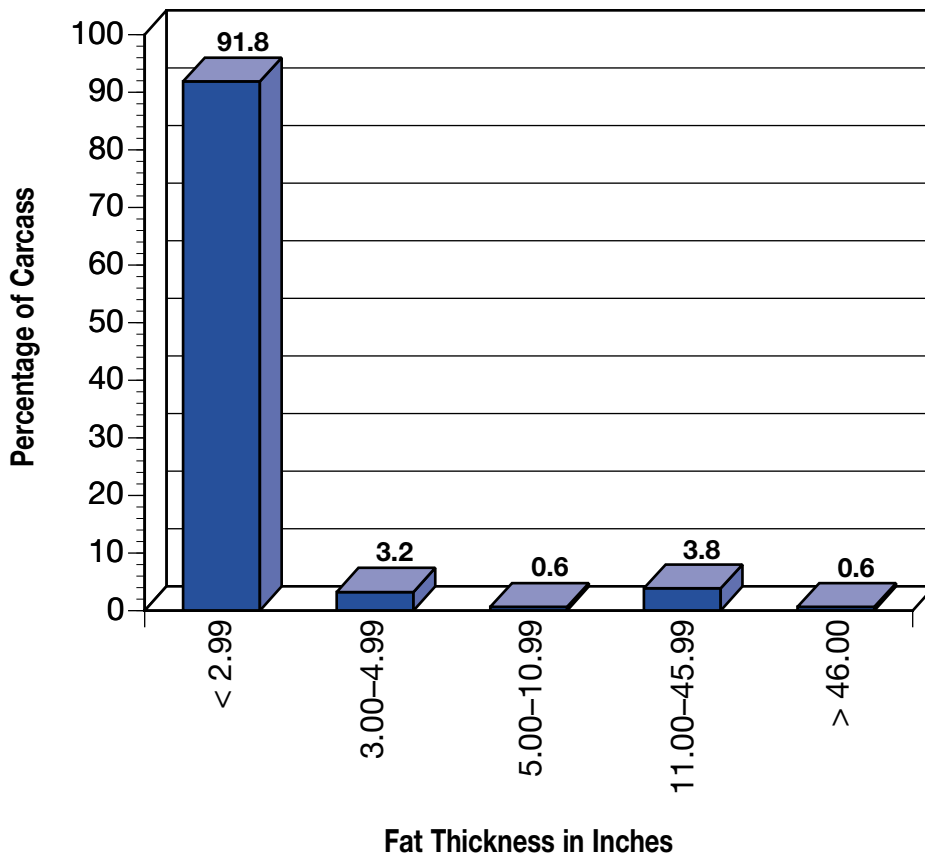


USDA YIELD GRADES

Yield grade for 57% of the carcasses was 1 or 2; the average was 2.8. Carcasses ranged from .96 to a 4.52 calculated yield grade.



AVERAGE ANIMAL TREATMENT COST/OWNER



Average per-calf treatment cost was less than \$5.00 for 95% of owners. Five percent of the owners had treatment costs which exceeded \$5.00 per head, with 4.4% of the owners having treatment costs equal to or greater than \$11.00 per head. If a long-term average profit per head in the feedlot is considered to be nearly \$10, then 4.4% of the owners consigned groups of cattle that would not be expected to breakeven and another 0.6% of owners consigned cattle that would significantly decrease the feeder's profit.

TABLE OF HEALTH EVENTS

The table shows the health events for the CVD calves. At harvest, 304 of the carcasses were checked for lung lesions and liver abscesses. Lung lesions were observed in 18 of the carcasses, indicating prior pneumonia. Preliminary research has indicated many cattle have lung lesions at slaughter but were not detected as ill in the feedlot.

Health Events for 316 Calf Feds	Number of Calves (% of total)
Ill 1 time	38 (12%)
Ill > 1 time	15 (5%)
Affected w/respiratory disease (1 or > times)	105 (34.5%)
Affected w/lung lesions	18 (5.7%)
Condemned livers	21 (6.9%)
Died in feedlot	2 (0.6%)
Realized in feedlot	0

The variability seen in the carcass data collected from this program is a representation of the variability in the beef industry. Producers can use the CVD information to improve the consistency and uniformity of their product. In the program, producers learn the value of the product their genetics produced and can use this information to make more knowledgeable decisions in their operations, eliminate non-conforming cattle and correct problems associated with health and management. These changes will allow producers to improve the overall efficiency of their operations, remain competitive, and survive.

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