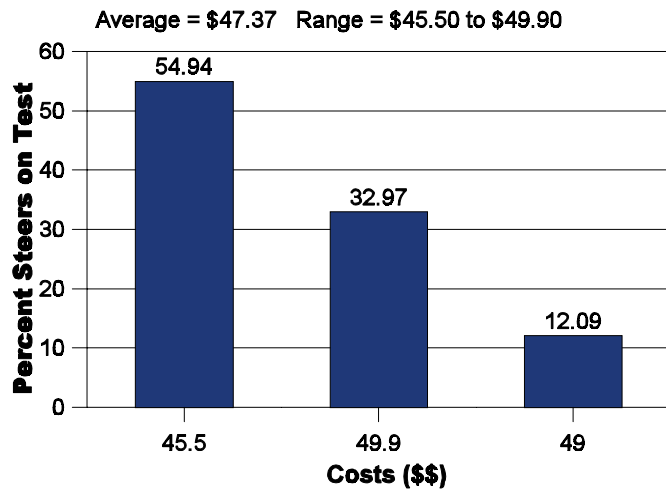


2.5 pounds. There was very little illness in the calves once the test began, which partially explains why the rates of gain were so high. The beginning weights of the calves ranged from 409 to 825 pounds, which resulted in calves being sorted into pens based on weight, breeding and predicted days on feed. This system appears to have been successful for the majority of the calves.

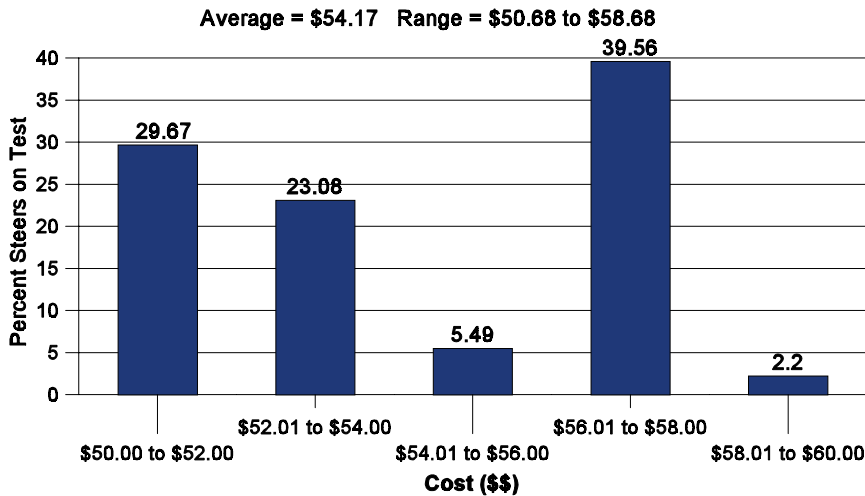
Feed consumption per head was calculated by dividing the total pen consumption by the total number of head days for the pen. Each steer was then assigned its feed costs according to the number of days on feed. This was based on the assumption that every steer had equal access to feed. Sorting of the calves initially and throughout the program enabled calves of similar weight to be fed together. Individual feed intake may have varied within each group, but this variation was probably only slight.

Feed costs were calculated for each group marketed at the time of marketing and reflect current commodity prices for the feeds in the ration at the time the calves were marketed. Feed cost of gain averaged \$47.37 and ranged from \$45.50 to \$49.90.

Feed Cost of Gain



Total Cost of Gain



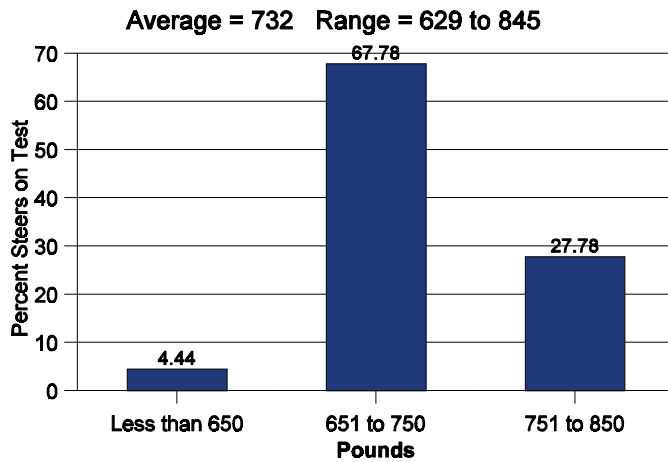
The total cost of gain included feed, yardage, shipping and brand inspection fees. The total cost of gain per cwt. averaged \$54.17 and ranged from \$50.68 to \$58.68.

Carcass Information

The steers were sold on a carcass basis when the ultrasound scan combined with live weight, breed characteristics and visual evaluation indicated a high probability of the carcass grading choice. The steers were sold in four market groups.

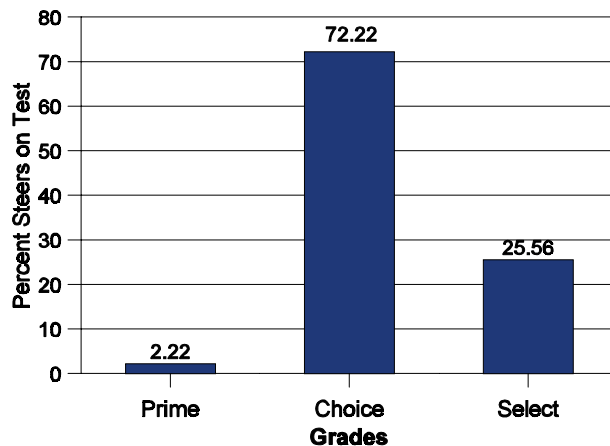
Carcass weights averaged 732 pounds, with 95.56% of the carcasses falling within the 650 lb. to 850 lb. range preferred by most packers.

Carcass Weights



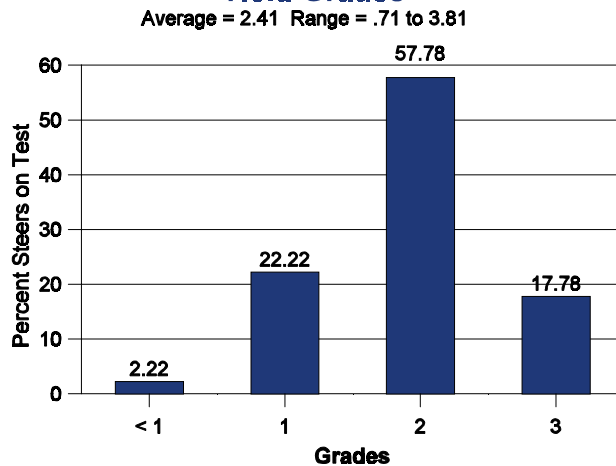
Seventy two percent of the carcasses graded Choice, 2% were Prime and 25.5% were Select. None of the cattle graded lower than Select.

Quality Grades



Eighty two percent of the steers produced carcasses with yield grades below 3.0. Only 17.8% of the carcasses had yield grades over 3.0. Average yield grade was 2.41 and the range was from .71 to 3.81.

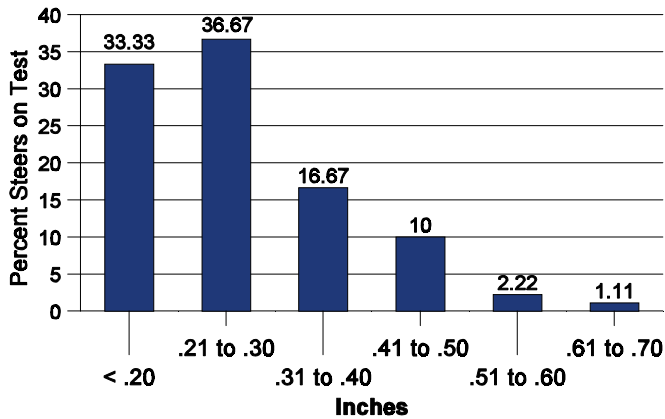
Yield Grades



Yield grade is influenced by the amount of fat a carcass is carrying and the carcass' muscle mass. The average back fat thickness over the ribeye was .29 inches and fat thickness ranged from .05 to .65 inches. Optimal fat thickness is between .25 and .45 inches. Less than this optimal amount can lead to tough cuts due to cold shortening and these carcasses often do not display enough marbling to grade choice. Thicknesses in excess of the .45" level leads to excessive trim waste. High fat deposition can be a factor of either being held on feed too long, genetic disposition to deposit fat, or a combination of both.

Backfat Thickness

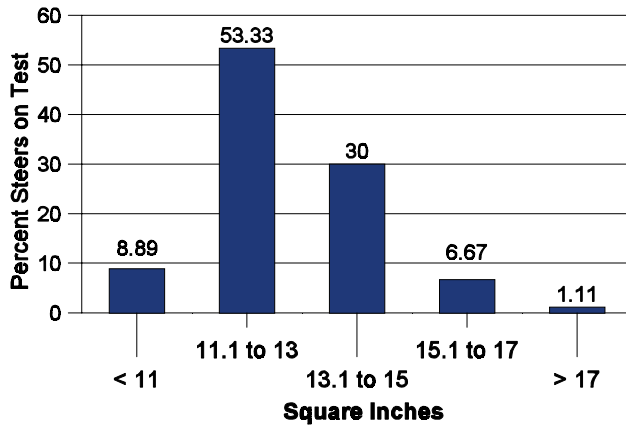
Average = .29" Range = .05" to .65"



The surface area of the ribeye is the chief indicator of overall muscle mass on the carcass. Ranch to Rail steer ribeyes averaged 12.75 square inches and ranged from 10.1 to 17.8 square inches. Ribeye areas in the range of 11.0 to 17.0 are the most marketable in the retail market, and 91% of the carcasses fit that criteria. Extremes on both sides of this optimal range present marketing and fabrication problems and selection should be made to minimize these types of animals from the beef herd.

Ribeye Area

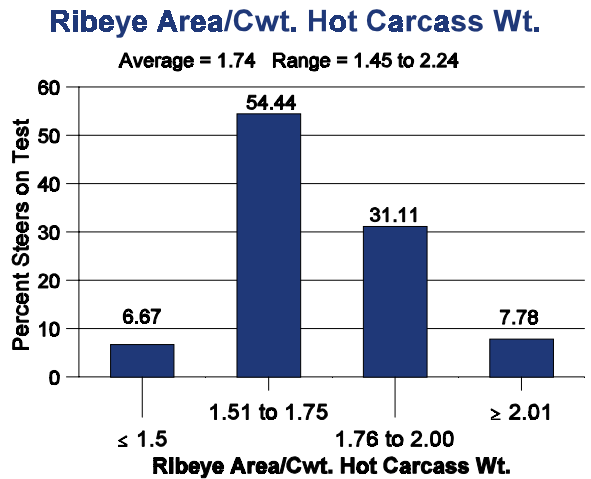
Average = 12.75 sq. inches Range = 10.1 to 17.8 sq. inc



Carcass Characteristics of Ranch-to-Rail steers for each marketing period

Days on Feed	140	168	217	245	
Date Sold	4/7/99	5/5/99	6/23/99	7/21/99	
Quality Grade	Yield Grade	No.	No.	No.	No.
Prime	3		1	1	
Choice	1	2	4	2	3
	2	9	8	18	5
	3	6	4	4	
Select	1	4	2	3	1
	2	4	4	1	2
	3	1	1		
Cutability (%)					
47 ≤ 50		12	10	15	3
51 ≤ 53		13	14	12	7
54 ≤ 56		1		2	1

The amount of ribeye area tends to increase as carcass size increases. One way to measure ribeye area relative to carcass size is to calculate the ribeye area per 100 pounds of hot carcass weight. The average was 1.74 square inches per cwt., and the range was 1.45 to 2.24. The higher values indicate greater thickness of muscle, but selection solely on this trait could increase management problems associated with calving difficulty. Therefore, selection should be made for moderately high muscling which would coincide with a 2.2 or smaller ribeye area per cwt. of hot carcass weight. Nearly 99% of the steers on test fell into this range.



FINANCIAL INFORMATION

As seen in the budget outlined below, the average net return per head was -\$21.89.

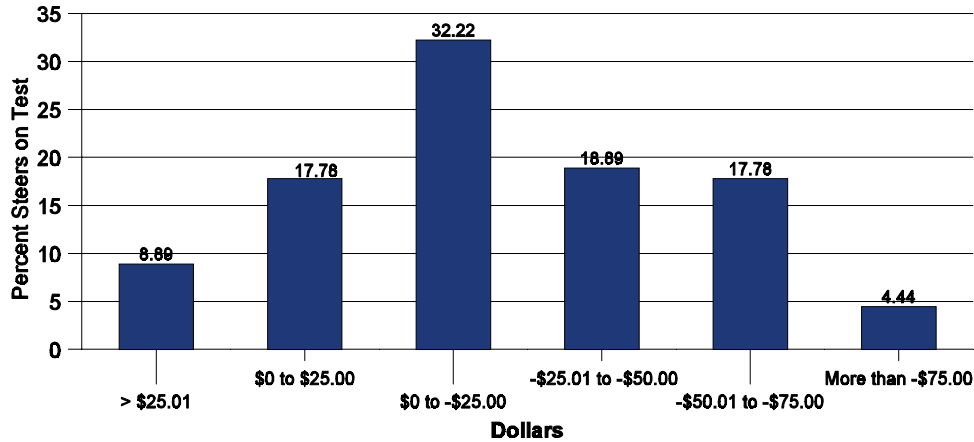
1998-99 Ranch to Rail Average Financial Results	
Income	\$756.51
Expenses	
Feeder Steer Value	\$456.75
Feed	281.68
Yardage	27.82
Shipping	10.40
Brand Inspection	<u>1.75</u>
Total	\$778.40
Net	<\$21.89>

The range in net return per head varied between a profit of \$60.57 and a loss of \$123.27. The profitable calves tended to be those that came in at slightly heavier weights, had high daily gains and were marketed early in the program. Those calves marketed later in the program were characterized by decreased efficiency of gain or were extremely light coming into the program. This was especially true of the cattle in the final market group. Profitability of the steers in the last two marketings was further hampered as we began entering the historical mid-summer price slump. Carcass price for the last two marketings were \$1.03 and \$1.01, respectively, compared to \$1.04 for the first two marketings.

Nearly 27 percent of the calves in the program had a positive net return. Thirty two percent of the steers showed a net loss of between \$0 and -\$25.00, while 41% had a net loss greater than -\$25.00. These numbers do not reflect the cost of trucking from the ranch to the feedlot or interest on the feeder steer value, as these values were not available for analysis.

Net Return Per Head

Average = -\$21.89 Range = \$60.57 to -\$123.37



Summary

The amount of variability in terms of feedlot performance, carcass traits and net return per head demonstrate the diversity found throughout the U.S. beef industry and in Utah. Producers must reduce this variability and produce a product that meets the needs of all segments of the industry if they are to remain competitive with competing meats such as pork and poultry. Ranchers must take stock of their respective operations, reduce costs wherever they can and then make adjustments in the genetics of their herd to insure they remain on track with market trends. The time is rapidly approaching wherein producers will be paid for the “value” of their product instead of simply being paid for a commodity. Those that know what comprises value in their product will be those who will receive higher returns for that product. The purpose of the Ranch to Rail program is to give producers the information on their cattle which will aid them as they make these production decisions to increase their production efficiency and profitability while providing a valuable marketable product to the beef industry.

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