

1996-97 Texas A&M Ranch to Rail - North/South Summary Report

The Texas A&M Ranch to Rail program is an information feedback system that allows producers to learn more about their calf crop and the factors that influence value beyond the weaned calf phase of beef production. It is not a contest to compare breeds or breeders and it is not a retained ownership promotion program. It creates an opportunity for producers to determine how their calf crop fits the needs of the beef industry and provides the information needed to determine if changes in genetics and/or management factors are warranted in order to be competitive in beef production.

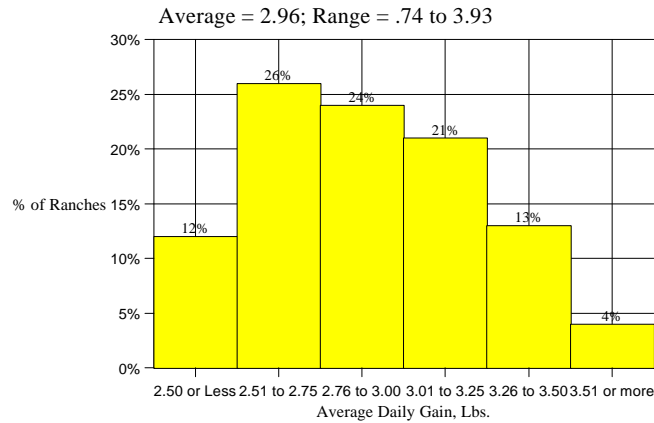
Entries from 186 ranches totaled 2,072 head that were placed on feed in October 1996 at Randall County Feed Yard at Amarillo and at Hondo Creek Feed Yard at Edroy. Upon arrival the steers were eartagged, weighed and processed. Each steer was assigned a per hundredweight value based upon current local market conditions by Federal-State Livestock Market News Service personnel to serve as a basis for calculating theoretical breakevens and the financial outcome of the program. The steers were sorted into feeding groups based upon weight, frame, flesh condition and biological type. Management factors such as processing, medical treatments and rations fed to the steers in Ranch to Rail were the same as the other cattle in the feedyards. Individuals were slaughtered when they reached the weight and condition regarded as acceptable for the industry and market conditions by the feedyard managers. The cattle were sold on a carcass basis with premiums and discounts for various quality grades, yield grades and carcass weights. Feed, processing and medicine costs were financed by the feedyards. All expenses were deducted from carcass income and proceeds were sent to the owner along with detailed performance, carcass and financial summary reports.

Performance Information

Weights used to determine gain were off-truck arrival weight and sale weight (final weight less a 4% pencil shrink). Average off-truck weight was 614 pounds and average sale weight was 1,163 pounds. Days on feed averaged 186 and ranged from 148 to 224. The average daily gain for all steers was 2.96 pounds while the range for the ranch entries varied from .74 to 3.93 as shown in the following graph. Thirty eight percent of the entries gained over 3.0 pounds per day while 12% gained 2.5 pounds per day or less. Most of the low rates of gain were due to death loss in a ranch entry since total sale weight minus total off-truck weight divided by total head days was the calculation used to determine the performance of each ranch group. The range in off-truck weight varied from 344 pounds to 994. Sale weight (not including those railed) ranged from 811 to 1,632 pounds. Management of the extremes in off-truck weight was a problem since some of the

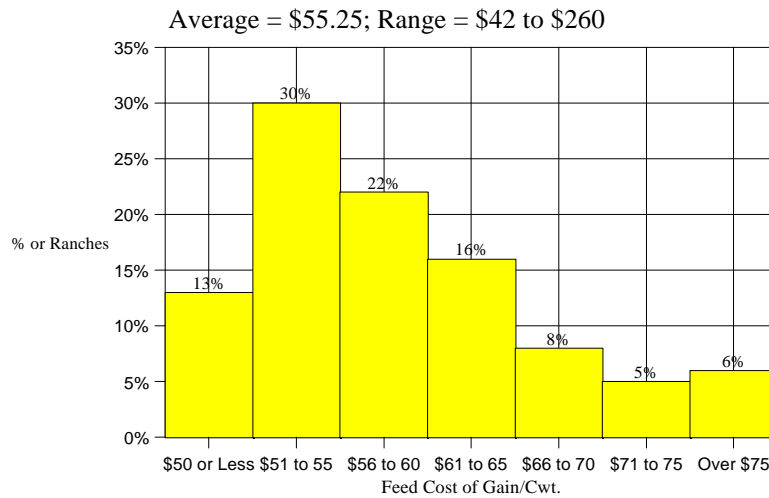
extremely heavy steers were likely overfed until a truckload lot was available for the first shipment to the packer and the very light calves were marketed in the last marketing group when they might not have been at their optimum.

Average Daily Gain



Feed consumption for each steer was determined by dividing total pen consumption by total head days for the pen and each steer was assigned its prorated share based upon its days on feed. This is based upon the assumption that all steers had equal access to feed. To help assure this, steers of similar size and type were placed in the same pen. Steers that gained faster had more desirable feed costs of gain since feed cost was divided by net gain to calculate feed costs of gain. The chart below shows that the average feed cost of gain was \$55.25 per cwt. and the range varied from \$42 to \$260 per cwt.

Feed Cost of Gain



Total cost of gain per cwt. averaged \$61.52 and ranged from \$45 to \$300 as shown below. Entries with low total costs of gain were characterized by high rates of gain and low, or no medicine costs.

Total Cost of Gain



Carcass Information

The steers were sold on a carcass basis when the feedyards determined that each steer was at its optimal market condition. Steers were sold in 18 groups based upon current market demands.

The steers at Randall County Feed Yard were sold to IBP at Amarillo. Yield Grades 2 and 3 were priced on a split yield grade (i.e. 2a/2b and 3a/3b). Yield Grade 2a would be all steers with a Yield Grade between 2.0 and 2.49, whereas 2b would be 2.5 to 2.99. Carcasses that weighed over 950 or less than 550 received a discount.

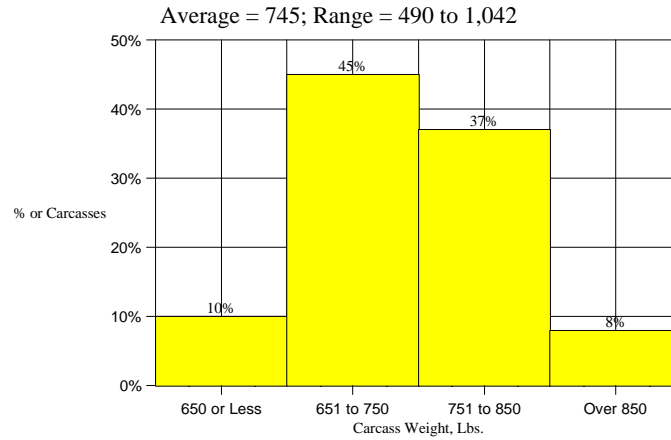
The steers at Hondo Creek Feed Yard were sold to Sam Kane Beef Processors at Corpus Christi. Yield Grades 2 and 3 were not split as they were at Amarillo and prices received for Standard carcasses were dependent upon yield grades. There were no weight discounts.

**CARCASS PRICES RECEIVED
1996-1997 RANCH TO RAIL-SOUTH (\$/lb.)**

DAYS ON FEED		152	159	166	173	198	199	215	216
MARKETING NO.		1	2	3	4	5	6	7	8
SALE DATE		3/27	4/3	4/10	4/17	5/12	5/13	5/29	5/30
QUALITY GRADE	YIELD GRADE								
PRIME & CHOICE	1	1.12	1.12	1.10	1.10	1.13	1.13	1.11	1.11
	2	1.11	1.11	1.09	1.09	1.12	1.12	1.10	1.10
	3	1.09	1.09	1.07	1.07	1.10	1.10	1.08	1.08
	4	.89	.89	.87	.87	.90	.90	.88	.82
SELECT	1	1.07	1.07	1.05	1.05	1.08	1.08	1.06	1.06
	2	1.06	1.06	1.04	1.04	1.07	1.07	1.05	1.05
	3	1.04	1.04	1.02	1.02	1.05	1.05	1.03	1.03
	4	.84	.84	.82	.82	.85	.85	.83	.83
STANDARD	1	1.02	1.02	1.01	1.01	1.02	1.02	1.00	1.00

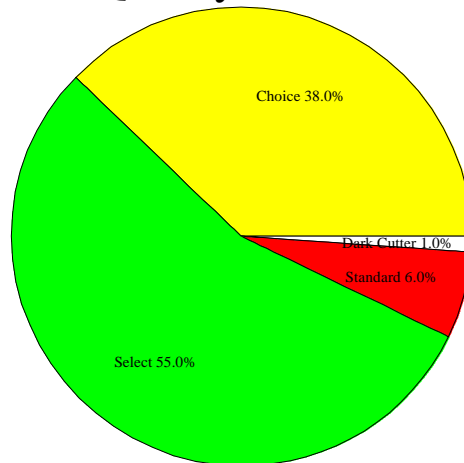
Carcass weights averaged 745 pounds. However, 18% were outside the range of 650 - 850 pounds generally preferred by most packers. Carcass weights ranged from 490 to 1,042 pounds.

Carcass Weights



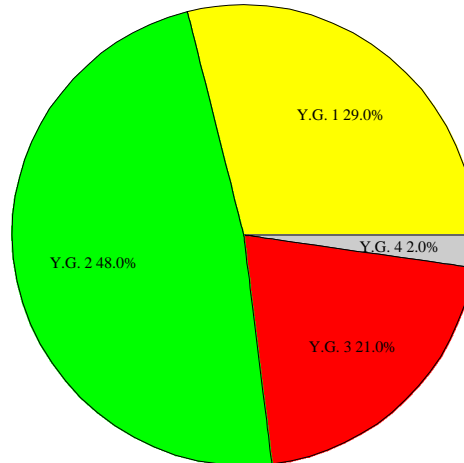
Thirty eight percent of the carcasses graded Choice, 55% were Select and 6% graded Standard. Twelve carcasses did not receive a quality grade because they were dark cutters.

Quality Grades



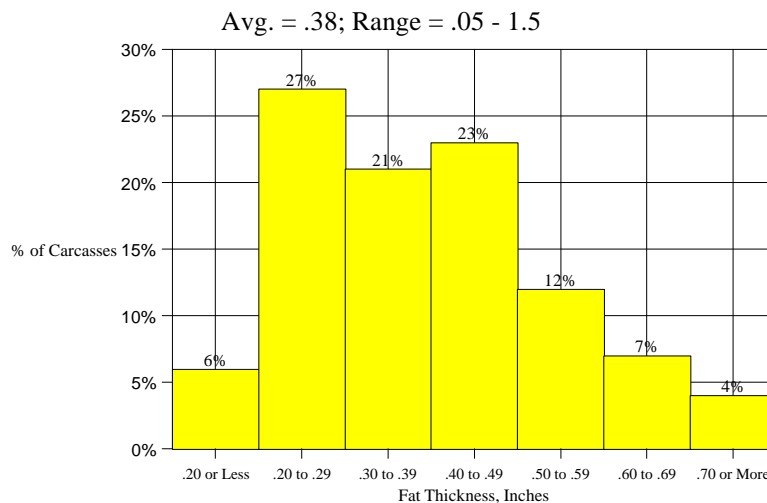
Seventy seven percent of the carcasses were Yield Grades 1 and 2 and only 2% were Yield Grade 4.

Yield Grades



Fat is one of the major factors that influences yield grade. Average fat thickness over the ribeye was .38 inches. The range was .05 to 1.5 inches. Some of the extremely fat carcasses were the result of overfeeding and the genetic predisposition to accumulate fat. Carcasses that are extremely lean often do not possess adequate marbling and are more prone to produce cuts that are tough due to cold shortening. Carcasses with .25 to .45 inches of external fat are more optimal.

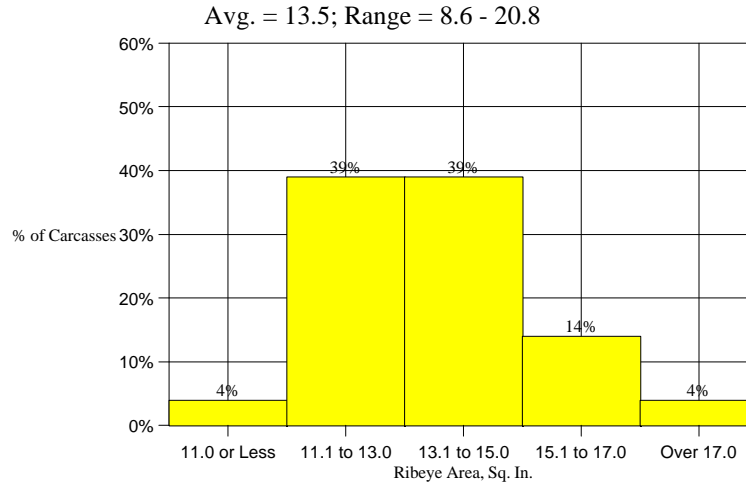
Fat Thickness



Ribeye area is a primary indicator of carcass muscularity and lean meat yield. The average ribeye area was 13.5 square inches. The range varied from 8.6 to 20.8 square inches. Extremes in ribeye size

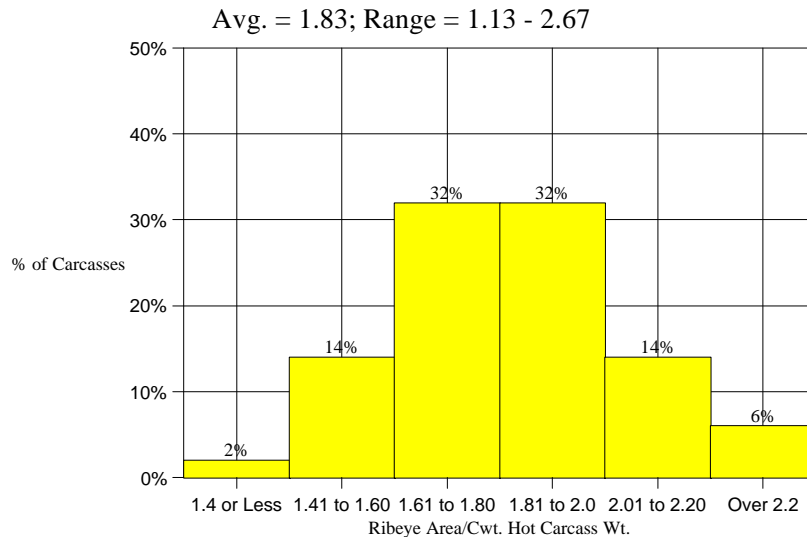
present problems in fabricating cuts. Ribeyes that range from 11.0 to 17.0 square inches generally have more utility in the beef industry and 92% of the carcasses fell in that range.

Ribeye Area



Ribeye area is greatly influenced by carcass weight. Heavier carcasses tend to have larger ribeyes. Ribeye area per 100 pounds of hot carcass weight provides a measure of relative muscling. The average was 1.83 square inches per cwt., while the range was 1.13 to 2.67 square inches per cwt. Higher values indicate increased muscling, but production related factors such as calving ease necessitate not selecting for extreme muscling, therefore 2.2 is probably an upper limit while less than 1.8 generally means more muscling is needed.

Ribeye Area/Cwt. Hot Carcass Weight



Financial Information

The budget below shows that the average net return per head sold was \$96.28.

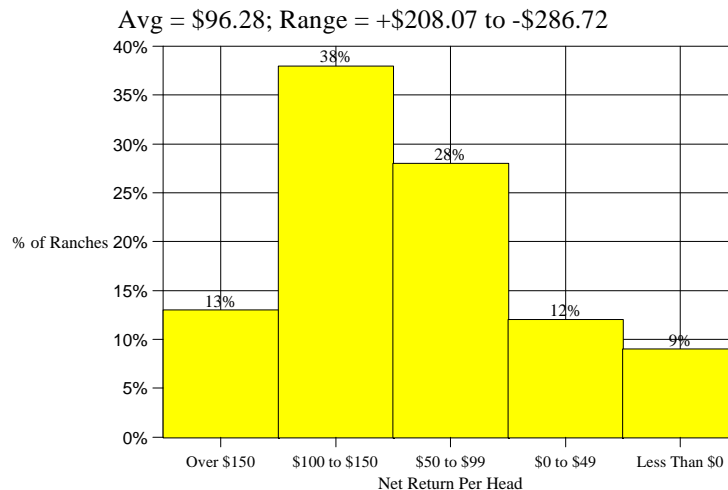
1996-97 Ranch to Rail Summary Financial Results

Income	\$787.43
Expenses	
Feeder Steer Value	\$353.47
Feed	303.24
Medicine	3.02
Processing	11.67
Death Loss	8.95
Fees	1.40
Interest	6.67
Other	<u>2.73</u>
Total	\$691.15
 Net	 \$96.28

The range in returns per ranch varied from +\$208.07 to -\$286.72 per head for the cooperating 186 ranches. The distribution of net returns is shown in the graph below. Ninety one percent of the ranches had a positive net return. Highly profitable entries were characterized by high rates of gain, low medicine costs and high grading, lean carcasses.

These figures do not include trucking cost to ship the steers from ranch of origin to the feedyard due to lack of access to all records to determine that figure. They also do not reflect interest on steer value or an opportunity cost. These factors and others need to be considered when determining the profitability. The NCA-IRM-SPA Stocker/Feeder guidelines provide excellent methodology to determine full cost analysis to more accurately assess the economic and financial results.

Net Return Per Head



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Death Loss

Thirty four steers died for a 1.6% death loss with an economic impact of \$18,232.67. Shown below are the diagnosed causes of death.

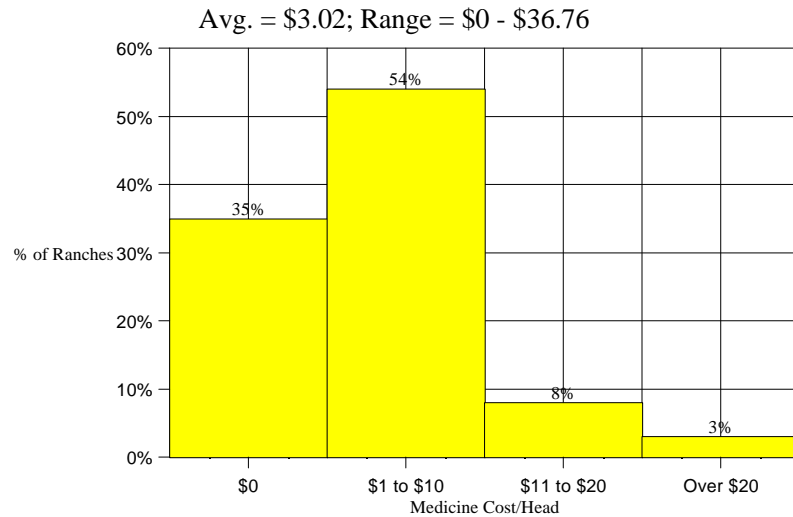
Death Losses

<u>Diagnosis</u>	<u>Head</u>
Pneumonia	21
Bloat	5
Peritonitis	2
Enterotoxemia	2
Other	4

Effect of Health on Performance and Profit

The health status of steers in the feedyard had a major impact on performance and profit. The average medicine cost above processing was \$3.02 per head. However, the range for the ranch entries varied from \$0 to \$36.76 per head. Thirty five percent of the ranches incurred no medicine expenses and an additional 54% had costs per head of \$10 or less. However, 3% of the entries had average medicine costs in excess of \$20 per head.

Medicine Costs



Steers that got sick not only incurred additional medicine costs, but they also generally gained less, were less efficient and graded lower. Shown below is a comparison of all steers that got sick vs. those

that required no treatment at the feedyard.

	<u>Sick</u>	<u>Healthy</u>
Head	298	1,774
Death Loss	7.7%	0.6%
Avg. Daily Gain	2.40	2.96
Total Cost of Gain	\$76.95	\$59.52
Medicine Cost	\$23.36	\$ 0.00
Net Return	<\$5.23>	\$112.19
Quality Grade		
Choice	26%	40%
Select	60%	55%
Standard	14%	5%

Healthy steers had an average of \$117.42 (112.19 - (-5.23)) more favorable return. Steers that got sick not only incurred an average of \$23.36 more expense in medicine costs, but there was \$94.06 in "lost value" (\$117.42 - \$23.36) due to reduced efficiency, lowered gain and reduced sale value. Calves that got sick were theoretically worth \$19.87 less per hundred weight upon arrival than steers that never required treatment.

Difference in Value

Healthy	\$112.19
Sick	<u>- < 5.23 ></u>
Difference	\$117.42

Avg. In Weight of Sick Steers = 591
 $\$117.42 \div 591 = \$19.87/\text{cwt}$ Less as Feeders

Summary

Extremes in net return, health costs, performance factors and carcass parameters among the Ranch to Rail entries reflect the variability that exists in the beef industry. Reduction of these variables and production of a product that meets the needs of all segments of the beef industry must be each producers goal. Ranchers need to assess their operations, implement cost effective management factors and adjust the genetics of their herd to make sure they are on target. Value based marketing at all levels of the industry is rapidly becoming a reality, and those that know what constitutes value and have a product that meets those demands will be competitive in the market place. The purpose of Ranch to Rail is to provide feedback to producers to allow them to make decisions to enhance their production efficiency, profitability and contribution of a satisfactory product in the beef industry.

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