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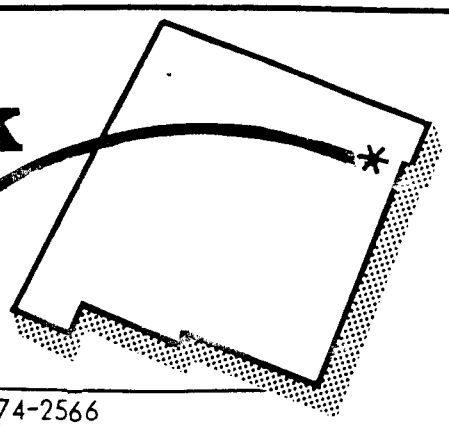
Clayton Livestock Research Center



PROGRESS REPORT

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FEEDLOT PERFORMANCE AND CARCASS CHARACTERISTICS OF CHIANINA CROSSBRED STEERS DURING A 160-DAY FINISHING PERIOD[1]

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Current marketing trends within the beef industry are emphasizing a shift from the traditional marketing of generic beef products to a system emphasizing brand name retail beef products. Recent examples of this trend include selling of certified Angus Beef, Chianina Lite (Key Lite) Beef and various beef products packaged and labelled for retail sales by the packer. is type of brand name or market designted marketing system offers several options for commercial and seedstock producers, however, the producer must evaluate and target management systems to the brand name program which offers the greatest marketing potential and financial return. The objective of this report is to provide feedlot performance and carcass data on Chianina crossbred steers to evaluate their potential use in a particular brand name or marketing niche.

On May 27, 1987, 40 head of Chianina crossbred (Chianina bull x black baldie cow) yearling steers with an average weight of 647 lb. were received at the Clayton Livestock Research Center. Cattle were processed (mass medicated, vaccinated, implanted, injected with vitamin A and ivermectin, branded, ear-tagged and weighed) immediately off the truck. Cattle were then sorted into three pens and brought on feed with a 75% concentrate milled feed with grass hay provided free choice for the first week after arrival. tle were then finished on an 85% concentrate milled feed. Cattle were on feed for 160 days at which point they were sent to Iowa Beef Processors in Amarillo, Texas for slaughter. Individual carcass data were collected at this time. Feedlot performance and carcass data are presented in Table 1. Overall performance throughout the feeding period was exceptional with cumulative mean weight gains in excess of four lbs/day. Average daily gains, however, did decline drastically during the final 40 days of the feeding period resulting in much poorer feed-to-gain conversions than observed during the first 120 days on feed. This was probably attributable to the larger maintenance requirements experienced as the cattle grew and matured. Carcass data indicated all cattle graded in the choice and select quality grades with a mean yield grade of 2.9. Under the present marketing system, it is generally desirable for cattle to remain on feed long enough to grade USDA Choice. This is often at the expense of a lower yield grade and decreased animal performance during the final phases of the feeding period. With a market-designated or brand-name tape of marketing system it may be desirable for the producer to breed or feed cattle to fill a particular marketing niche. In this trial, while a positive net financial return (Table 2) was realized under existing markets, by designating a particular brand-name market, which emphasizes a minimal amount of fat, it may be possible to improve economic returns even more.

[1] The authors wish to thank Mr. W. F. Martin, Gladstone, New Mexico, for providing cattle used in the study and to Dr. Ted Montgomery, West Texas State University and to Iowa Beef Processors, Amarillo, Texas for collection of carcass data.

Table 1. Feedlot Performance and Carcass Characteristics of Chianina Crossbred Steers During a 160 Day Finishing Period.

Item	Days on Feed 0-28	0-65	0-93	0-121	0-149	0-160
Average daily gain, lb/d	2.94	4.82	4.78	4.68	4.26	4.13
Daily Feed Intake, lb[1]	14.6	22.4	24.5	26.0	25.7	25.9
Feed-to-Gain, lb	4.97	4.65	5.13	5.55	6.03	6.27

Carcass Data	Mean	Range
Hot carcass wt, lb	814	734 - 922
Dressing %	62.0	59.9 - 64.9
Quality grade[2]	11.0	9.0 - 13.0
Yield grade	2.9	1.5 - 4.4
Ribeye area, in[2]	13.9	11.1 - 16.3
Fat cover, in	.54	.20 - 1.00
Marbling score[3]	4.9	4.3 - 6.1
Kidney, pelvic and heart fat, %	2.0	1.5 - 2.5
% grading choice	35.3	
% grading select	64.7	

[1] As-fed basis
[2] Quality grade: 9 = low select; 10 = select, 11 = high select, 12 = low choice, 13 = choice.
[3] Marbling score: 3 = trace; 4 = slight, 5 = small; 6 = modest.

Table 2. Costs and Value of Chianina Crossbred Steers During a 160-Day Finishing Period.

Number of head	38
Processing costs, total, $	367.52
Feed Costs, $[1]	8,198.55
Total costs during feeding period[2]	8,566.07
Total costs for gain from off-ranch wt., $/cwt	35.37
Liveweight price received, $/cwt	65.36
Net return during feeding period, $/cwt	29.99

[1] Cost per ton of feed = $101.67 which includes markup for labor and yardage.
[2] Does not include interest costs.

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