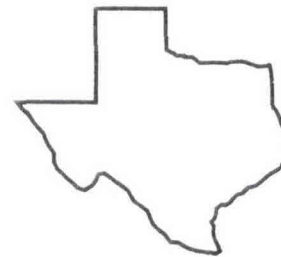
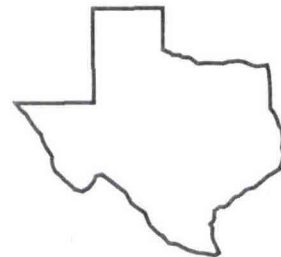


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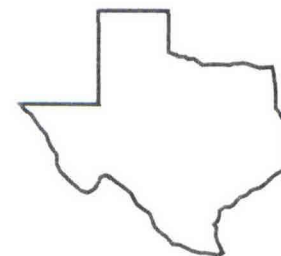
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PERFORMANCE AND CARCASS CHARACTERISTICS OF FALL-BORN CALVES PLACED INTO A HIGH PLAINS FEEDLOT AT WEANING

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Background. Traditional ownership phases of cattle from birth to slaughter have included cow-calf, stocker, and feeder. For the past several years, research with forages and pasture systems along with an ever-improving animal genetic base, has resulted in sufficiently heavy weaning weights to allow for direct placement of calves into the feedlot. The objective of this research was to ascertain feedlot performance and carcass traits of steers and heifers when placed in a commercial feedlot at time of weaning. Additionally, the feeding period was designed to be only long enough for the cattle to visually grade USDA Select or better.

Research Findings. Steers and heifers (1/2 Simmental x 1/4 Brahman x 1/4 Hereford) born during a 45-day period in September-October were grazed on ryegrass and/or clover during the pre-weaning phase. Bermudagrass pastures provided the only source of forage during June and July. Calves were vaccinated (Tex-Vac) on June 25, weaned on July 13, and shipped to a commercial feedlot in Hereford, Texas on July 21. Steers weighed 831 lbs and heifers weighed 748 lbs as they departed Overton (Table 1). Steers fed for 123 days had an average daily gain (ADG) of 3.52 lbs; whereas, heifers which fed for 147 days had an ADG of 2.67. With a 4% pencil shrink, pay weights were 1219 and 1129 lbs, respectively, for steers and heifers. Feed to gain conversions were excellent for both groups of cattle at about 6.1; however, consumption by heifers was less than anticipated (2.18% body weight [BW]).

Carcass traits were very acceptable with a backfat thickness of .31 inches for steers and .44 inches for heifers. The USDA yield grades and quality grades were representative of desirable lean beef traits. About 95% of both steer and heifer carcasses graded USDA Select with about 40% being in the upper portion of that grade. There was some detectable liver damage in both sexes with about 10% being classified as condemned from the steers.

Application. Properly managed pasture systems and a fall-calving season allow cattle to make optimum expression of their genetic growth potential and wean at weights which allows for the omission of a stocker phase. This research would indicate that cattle slaughtered at 13 to 14 months with carcass weights in excess of 700 lbs have the opportunity to grade USDA Select or better, and currently, without significant discounts for size or grade. With respect to rapidity and efficiency of production, as well as resultant carcasses that do not require excessive amounts of fat to be trimmed, heavy weaning weight calves placed directly into the feedlot offer significant potential economic opportunity for producers.

Table 1. Feedlot performance and carcass traits of calves placed into the feedlot at weaning.

Item	Feedlot Performance	
	Steers	Heifers
Number	27	18
Calving season	Fall '92	Fall '92
Age into lot, mos.	10	10
Date into lot	7-22-93	7-22-93
Date out of lot	11-22-93	12-16-93
Days on feed	123	147
Shipping wt, lbs	831	748
Off-truck wt, lbs	786	698
Transit shrink, %	7.4	6.7
Lot, final wt, lbs/hd	1270	1176
Feedlot ADG, lbs	3.52	2.86
Pay weight, lbs/hd	1219	1129
Pay weight ADG, lbs	3.27	2.67
Feed:Gain (dry)		
Feedlot	5.66	5.67
Pay weight	6.10	6.08
Avg. daily consumption, lbs	25.25	20.40
Estm. consumption, % BW	2.46	2.18
TOTAL COSTS/lb Gain, \$		
Feedlot	.4543	.5021
Pay weight	.4899	.5383
	Carcass Traits	
Approx. age at slaughter, mos.	13	14
Hot carcass wt, lbs	754	708
Estm. dressing, %	61.9	62.7
Fat thickness, in	.31	.44
Ribeye area, in ²	12.9	13.7
KPH	2.26	2.20
USDA Yield Grade	2.45	2.33
Marbling score	3.36	3.48
Maturity	A	A
USDA Quality Grade		
% Choice -	0	5.6
% Select +	40.7	38.9
% Select -	51.9	55.5
% Standard	7.4	0
Liver damage		
Fluke, %	14.8	11.1
Condemned	11.1	0