

PUBLICATIONS

1993

FIELD DAY REPORT - 1993

Texas A&M University Agricultural Research and Extension Center at Overton

**Texas Agricultural Experiment Station
Texas Agricultural Extension Service**

Overton, Texas

May 28, 1993

Research Center Technical Report 93-1

All Programs and information of the Texas Agricultural Experiment Station and Texas Agricultural Extension Service are available to everyone without regard to race, color, religion, sex, age, or national origin.

Mention of trademark of a proprietary product does not constitute a guarantee or a warranty of the product by the Texas Agricultural Experiment Station or Texas Agricultural Extension Service and does not imply its approval to the exclusion of other products that also may be suitable.

PERFORMANCE OF DOMESTIC AND MEXICAN STEERS ON WINTER PASTURES IN EAST TEXAS

F. M. Rouquette, Jr., M. J. Florence, C. R. Long, J. W. Holloway, and B. G. Warrington

Background. For many years, steers have been crossed from Mexico into Texas to be grazed on small grain pastures or native rangeland and then shipped to the High Plains feedlots for fattening. Economic incentives to purchase these cattle were linked primarily to anticipated compensatory gain, animal health, and overall vigor and thriftiness of the Mexican steers under Texas climatic conditions. Although both genotype and phenotype have dramatically changed in recent years, Mexican steers which have been moved into Texas have traditionally been Brahman and/or dairy crossbred cattle. Since about a million of these steers currently cross into Texas, a cooperative experiment was initiated between TAES-Overton and TAES-Uvalde to evaluate the method of wintering (backgrounding) on grazing performance and subsequent feedlot and carcass characteristics.

Research Findings. One truck of Mexican No. 1's and two truckloads of No. 1-1/2 steers were crossed into Texas at Presidio and transported to Uvalde (9 hours). After a 2-day rest, steers were sorted into six groups by weight, frame score, and visually assessed breed type. One-third of each sorted group from each truck was transported to Overton (total = 110 head). Of the 110-head, there were more than 30 "types" of steers that were visually grouped into 8 categories (Table 1). These steers were assessed to be representative of Mexican steers that are currently available for grazing programs. Domestic, 1/2 Simmental : 1/4 Hereford : 1/4 Brahman steers reared at TAES-Overton were also grazed to provide a baseline for weight gain. These Simmental crossbred (SIMX) steers were relatively uniform and were representative of improved, rapid growth rate cattle, but may not be representative of the average "domestic" steers in Texas. The pay weight of Mexican steers was 455 lbs at Presidio, and the delivery weight at Overton was 435 lbs. The SIMX steers grazed prepared seedbed rye-ryegrass from November to June 2, 1992. Due to unfavorable climatic conditions in the fall, Mexican steers received hay *ad libitum*, 3 lbs/hd/day of a 3:1 (corn:soybean meal) supplement, and limited winter pasture grazing from December 9, 1991 to January 30, 1992. From January 30 until June 2, Mexican steers grazed rye-ryegrass pastures continuously.

Average daily gain for the SIMX steers was about 2 lbs per day and for Mexican steers was about 1.8 lbs per day over the entire 176-day period (Table 2). Within the arbitrary groupings, Mexican steers in Group 3 (dairy crossbred with less than 25% Brahman breeding)

gained 1.97 lbs/day, and steers in Group 7 (dairy crossbred with approximately 50% Brahman breeding) gained 2.14 lbs/day overall.

Application. Within certain breed types, Mexican steers can make daily gains comparable to domestic, terminal-cross steers. These Mexican steers were relatively youthful cattle (8 to 18 months); thus, the additional 9 hours transportation to Overton resulted in sickness in approximately 1/3 of the steers. Variability in gain was apparent among the arbitrary groupings; however, the group performance met or exceeded expectations for these types of cattle.

Table 1. Visual assessment of breed type and estimated percentage Brahman of steers.

Group	n	Breed Type ¹	Approximate
			Brahman Breeding (%)
DOMESTIC	19	1/4S x 1/4H x 1/4B	25
MEXICAN			
1	13	H	0
2	10	A; AxH; AxO	0
3	15	DxH; DxB; DxAxB	0-25
4	22	AxB; AxHxB; AxCxB; HxB; HxCxB	<25
5	16	AxB; HxB; DxB	25-50
6	16	AxB; HxB	50
7	9	DxB; DxAxB	50
8	7	HxB; OxB; DxB; AxCxB	>50

¹ Breed types of Mexican steers estimated by visual appraisal by 2 scorers.

H = Hereford; A = Angus; D = Dairy; B = Brahman; C = Charolais; O = Other; S = Simmental.

Table 2. Weight gains of domestic and Mexican steers during winter-spring period.

Group	Weight		Average Daily Gain ¹	
	Receiving	Final	Overall	Winter Pasture Only
DOMESTIC	473	858	2.04	2.04
MEXICAN				
1	450	754	1.73	1.94
2	428	737	1.76	2.09
3	423	773	1.97	2.21
4	446	767	1.83	2.17
5	444	756	1.78	2.12
6	425	726	1.71	2.17
7	393	774	2.14	2.31
8	414	699	1.62	1.90

¹ ADG for Winter Pasture included time spent full-time grazing of rye-ryegrass pastures and Overall ADG is from time of purchase to time of shipping to feedlot.