

**Table 1.—Wintering and Grazing Steer Calves.**

Phase 1—Wintering—December 18, 1952, to May 4, 1953—137 days.<sup>1</sup>

Lot number .....	1	2	3	4
Number steers per lot .....	10	10	10	10
Place of wintering .....	Drylot	Bluestem pasture	Bluestem pasture	Bluestem pasture
Initial wt. of steer .....	417	416	416	417
Final wt. of steer .....	550	516	535	545
Gain per steer .....	133	100	119	128
Daily gain per steer .....	.97	.73	.87	.93
Daily ration per steer: <sup>1</sup>				
Soybean pellets .....	1.00	1.01	1.02	2.02
Prairie hay .....	13.36	1.83 <sup>2</sup>	1.72 <sup>2</sup>	1.72 <sup>2</sup>
Corn .....			1.00	
Mineral <sup>3</sup> .....	Yes	Yes	Yes	Yes
Salt .....	Yes	Yes	Yes	Yes
Dry bluestem pasture .....	No	Yes	Yes	Yes
Feed required for 100 lbs. gain:				
Soybean pellets .....	94.73	123.00	103.36	190.62
Prairie hay .....	1265.41	231.00	174.50	162.23
Corn .....			103.36	
Dry bluestem pasture .....		Free choice		
Feed cost per cwt. gain <sup>4</sup> .....	\$20.31	\$10.73	\$11.98	\$13.08
Feed cost per steer .....	27.01	10.73	14.26	16.74

Phase 2—Grazing—May 4 to July 30, 1953—87 days.

Initial wt. of steer .....	550	516	535	545
Final wt. per steer .....	727	691	717	721
Gain per steer .....	167	175	182	176
Daily gain per steer .....	1.92	2.01	2.09	2.02
Cost per 100 lbs. pasture gain \$	9.58	9.14	8.79	9.09

Summary of Phases 1 and 2

December 18, 1952, to July 30, 1953—224 days.

Initial wt. per steer .....	417	416	416	417
Final wt. per steer .....	727	691	717	721
Gain per steer .....	310	275	301	304
Daily gain per steer .....	1.38	1.23	1.34	1.36
Feed cost per 100 lbs. gain .....	\$ 13.87	\$ 9.72	\$ 10.05	\$ 10.77
Feed cost per steer .....	43.01	26.73	30.26	32.74

1. The wintering ration for Lot 1 was discontinued April 23 for Lots 2, 3, and 4 on April 18; the final weight for the winter period was taken May 4.

2. Prairie hay was fed to Lots 2, 3, and 4, only when snow covered the grass.

3. Mineral was two parts steamed bonemeal to one part salt.

4. Feed prices: corn, \$1.60 per bushel; soybean pellets, \$95 per ton; prairie hay, \$25 per ton; dry bluestem pasture, \$.50 per head per month; summer bluestem pasture, \$16 for season.

## Wintering and Grazing Steer Calves

Effect of Feeding Yearling Steers on Bluestem Pasture 2 Pounds of Corn or Soybean Pellets During the Latter Part of the Grazing Season, 1953.

PROJECT 253-1

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The nutritive value of bluestem pasture usually declines rapidly after midsummer. This test is an attempt to maintain a high rate of gain after midsummer with small amounts of concentrate feed.

### Experimental Procedure

Thirty-six head of good quality yearling Hereford steers were used in this test. They had been grazing together on bluestem pasture previous to the test. The steers were divided into three lots of 12 steers each, in a manner to equalize any difference due to previous winter treatments. They were grazed on bluestem pasture and received the following treatment from August 6, 1953, to October 23, 1953.

Lot 1—No supplement.

Lot 2—Two pounds of soybean pellets per head daily.

Lot 3—Two pounds of corn per head daily.

The steers were rotated on the pastures every 15 days to equalize any differences that might be due to pastures.

### Observations

1. Both supplements increased the gain slightly but not enough to pay for the supplement.

2. Apparently there was no great lack of protein in the grass, since the corn increased the gain slightly more than the soybean pellets.

3. As evaluated by a committee of animal husbandmen, the steers fed soybean pellets did not show so much bloom as those fed no supplement or those fed 2 pounds of corn.

**Table 2.—Effects of Feeding a Protein Supplement During the Latter Part of the Grazing Season to Yearling Steers on Bluestem Pasture.**

August 6-October 23, 1953—78 days.

Lot number .....	1	2	3
Number steers per lot .....	12	12	12
Management .....	No supplement	2 pounds soybean pellets	2 pounds corn
Initial wt. per steer .....	703	705	710
Final wt. per steer .....	811	823	835
Gain per steer .....	108	118	125
Daily gain per steer .....	1.38	1.51	1.60
Gain in wt. contributed to feeding soybean pellets or corn .....	0	10	17
Total soybean pellets or corn fed per steer—lbs.:			
Soybeans .....		156	
Corn .....			156
Gain per steer by periods:			
August 6-September 3 .....	50	58	40
September 3-October 2 .....	42	35	62
October 2-October 23 .....	16	25	23
Total gain August 6-October 23 .....	108	118	125