

Prairie hay ..	246.55		1191.47	784.38	698.14
Sorghum silage		2933.11			
Salt	7.93	17.70	6.21	5.04	3.78
Mineral mixture	6.64	19.32	13.05	9.23	6.15
Dry bluestem pasture	ad lib				
10. Cost of feed per 100 lbs. gain ¹	\$21.56	\$17.70	\$15.16	\$14.49	\$16.51
11. Total feed cost per steer ¹	\$13.34	\$13.10	\$14.40	\$19.86	\$25.76
12. Initial cost per steer @ \$41 per cwt.	\$159.08	\$159.49	\$159.49	\$159.90	\$160.31
13. Initial cost plus feed cost	\$172.42	\$172.59	\$173.89	\$179.76	\$186.07
14. Necessary selling price per cwt. to cover initial cost plus feed cost	\$38.66	\$37.27	\$35.93	\$34.11	\$34.02
15. Appraised value per cwt. May 3, 1952	\$	\$	\$	\$	\$

- 1 The wintering period for Lot 1 was 101 days.
- 2 Prairie hay was fed to Lot 1 on dry bluestem pasture only when necessary.
- 3 Mineral mixture was composed of 2 parts steamed bonemeal to 1 part salt.
- 4 Feed prices may be found on page 58 of this publication.

Wintering Steer Calves on Alfalfa Silage, 1951-52

R. F. Cox and E. F. Smith

Introduction

This test was intended to compare alfalfa silage with alfalfa hay as a roughage for wintering steer calves by feeding nonwilted alfalfa silage to one lot, wilted alfalfa silage to another, and alfalfa hay to a third lot. However, the alfalfa hay lot was omitted this year because of a lack of hay comparable to the silage.

Experimental Procedure

Eighteen good quality Hereford steer calves were used in the test. They were part of a group of 150 steer calves obtained from Marfa, Texas, for experimental purposes. They were divided into two lots of 9 head each and started on test December 22, 1951. Both lots were given free access to a mineral mixture and salt. Lot 1 was fed nonwilted alfalfa silage, and Lot 2 was fed wilted alfalfa silage. No preservative was added to either silage. Each type of silage was stored separately in small tile silos. The silage was made from second-cutting alfalfa approaching full bloom. The nonwilted silage

was somewhat more mature than the wilted silage. The calves were fed all of the silage they would eat twice daily.

Observations

1. Nonwilted or wilted alfalfa silage put up without a preservative did not prove satisfactory in this test as the only roughage for wintering steer calves.

2. Wilted alfalfa silage was superior to nonwilted alfalfa silage in producing steer gains.

3. The calves on the nonwilted alfalfa silage did not consume enough silage to meet their dry matter requirement. They simply did not get enough to eat, although they were fed all they would clean up. The test was discontinued after 86 days, due to a shortage of wilted alfalfa silage and to the condition of the calves.

4. Following is the analysis of the two types of alfalfa silage:

Type	Moisture %	Protein %	Fat %	Fiber %	N-free ext. %	Ash %	Carotene dry basis mg/100gm
Nonwilted	75.28	4.00	.93	9.84	7.44	2.51	.63
Wilted	57.00	7.58	.89	16.50	13.61	4.40	.36

Wintering Steer Calves on Alfalfa Silage (December 22, 1951, to March 17, 1952—86 days)

1. Lot number	1	2
2. Number steers per lot	9	9
3. Ration fed	Nonwilted silage	Wilted silage
4. Average initial weight, lbs.	387	387
5. Average final weight, lbs.	372	412
6. Average gain, lbs.	-15	25
7. Average daily gain, lbs.	-.17	.29
8. Average daily ration, lbs.:		
Nonwilted alfalfa silage, no preservative	24.87	
Wilted alfalfa silage, no preservative		21.83
Salt04	.04
Mineral ¹05	.04

1 Composed of 2 parts steamed bonemeal to 1 part salt.

Project 253-2: Wintering, Grazing, and Fattening Heifers, 1950-51

E. F. Smith, R. F. Cox, D. L. Good, and D. L. Mackintosh

Introduction

This test was to obtain further information about fattening heifers in regard to the following points:

1. Cottonseed oil meal as compared to soybean oil meal as a protein supplement in winter rations.

2. Influence of the level of wintering on future gain and finishing of heifers.

3. Extending the grazing season on bluestem pasture for heifers that are to be finished for a fall market.

4. Compare full-feeding grain on brome grass to full-feeding grain in dry lot.