

Table 13

A comparison of dry rolled and steam rolled sorghum grain.
July 25 to November 6, 1959—104 days.

| Treatment | Dry rolled grain | Steam rolled grain |
|--------------------------------|------------------|--------------------|
| Lot number | 15 | 17 |
| Number heifers | 9 ¹ | 9 |
| Initial wt. per heifer, lbs. | 604 | 602 |
| Gain per heifer | 260 | 251 |
| Daily gain per heifer | 2.50 | 2.41 |
| Daily ration per heifer, lbs.: | | |
| Sorghum grain, self-fed | 17.3 | 17.1 |
| Soybean meal | 1.5 | 1.5 |
| Prairie hay | 4.7 | 4.8 |
| Ground limestone | 0.1 | 0.1 |
| Salt | 0.06 | 0.04 |
| Feed per cwt. gain: | | |
| Grain | 692 | 708 |
| Soybean meal | 60 | 62 |
| Prairie hay | 188 | 199 |
| Dressing percentage | 58.6 | 58.9 |
| Av. carcass grade ² | 16.7 | 16.6 |
| Marbling score ³ | 7.7 | 7.9 |

1. Ten heifers were in this lot originally; one was removed due to poor health.

2. The USDA grade low good was assigned a numerical value of 16; average good, 17.

3. Degree of marbling: A score of 7 indicates small amount, 8 indicates slight amount. The higher the score, the less marbling.

A Comparison of Feeding Hay to Heifers on Bluestem Pasture and in Drylot, 1958-1959. Project 253-2.

E. F. Smith, D. L. Good, B. A. Koch, and F. W. Boren

This study was designed to evaluate mature dry winter pasture for animals fed all of the harvested roughage such as hay that they would consume. In addition one group of animals wintered in drylot were moved to pasture one month prior to the start of the summer growing season to study their adjustment to pasture.

The following experimental treatments were used:

Lot 8—Wintered in a 139-acre bluestem pasture from December 1, 1958, to April 30, 1959, and fed all of the prairie hay they would eat with 4 to 6 pounds of alfalfa hay per head daily.

Lot 18—Wintered in a drylot 50 by 120 feet in size from December 1, 1958, to April 30, 1959, and fed hay in the same manner as lot 8.

Lot 18A—Wintered in a drylot 50 by 120 feet in size from December 1, 1958, to March 30, 1959, and fed hay in the same manner as lot 8 and lot 18. From December 1, 1958, to March 30, 1959, these animals were wintered with lot 18; from March 30, 1959, to April 30, 1959, they were in the same pasture as lot 8.

Observations

The results of this test are reported in Table 14.

Feeding hay to heifers on pasture reduced their hay intake as compared to drylot feeding.

Those fed hay on pasture gained less than those fed in drylot, and those moved to pasture one month before the grazing season also gained less than those kept in drylot.

The heifers in this test were grazed together during the summer following the winter period. The combined winter and summer gains in pounds per head daily were: lot 8, 0.66; lot 18, 0.75; lot 18A, 0.71. None of these gains were significantly different when statistically analyzed.

Table 14

A comparison of feeding hay to heifers in drylot and on pasture.
December 1, 1958, to April 30, 1959—150 days.

| Lot number | 8 | 18 | 18A |
|---|------------------|--------|-----------------------------|
| Number heifers per lot | 10 | 10 | 10 |
| Feeding area | Bluestem pasture | Drylot | Bluestem pasture and drylot |
| Initial wt. per heifer, lbs. | 493 | 497 | 497 |
| Gain per heifer, lbs. | 12 | 87 | 45 |
| Daily gain per heifer, lbs. | 0.08 | 0.58 | 0.30 |
| Standard error of mean | ±0.06 | ±0.06 | ±0.05 |
| Daily ration per heifer, lbs.: | | | |
| Alfalfa hay | 4.6 | 4.9 | 4.6 |
| Prairie hay | 7.7 | 9.8 | 8.9 |
| Bluestem pasture | Yes | No | Month of April only |
| Mineral (2 parts bonemeal, 1 part salt) | 0.18 | 0.06 | 0.06 |

A Comparison of Wintering in Drylot with Wintering on Bluestem Pasture for Yearling Steers on a Wintering, Grazing, and Fattening Program, 1958-1959. Project 253-4.

E. F. Smith, F. W. Boren, and B. A. Koch

This is the third trial in a series designed to study the effect of winter management on performance of yearling steers. The first trial was reported in Circular 349 and the second in Circular 371 from this station. Yearlings consume large quantities of feed compared with calves, and cost of production is increased accordingly. This study is concerned with lowering the cost of wintering by introducing the use of low-cost, low-quality winter grass and observing its effect on future performance, especially with regard to the effect on the carcass.

Experimental Procedure

Twenty head of yearling Hereford steers, grading about high good on the basis of USDA feeder grades, were used in the test. They came from near Fort Davis and Paducah, Texas, and were allotted into two lots on the basis of origin and weight. They were the heavy end of the calves purchased in the fall of 1958 and were about one year old when started on the test. The only difference in treatment of the two lots was during the winter period; the treatment for the two lots was as follows:

Lot 12. Wintered on bluestem pasture supplemented with 5 pounds of alfalfa hay per head daily; bluestem pasture from April 30 to July 23; fed grain on grass from July 23 to November 14 and grain in drylot from November 14, 1959, to January 8, 1960.

Lot 23. Wintered in drylot on prairie and alfalfa hay and then handled for the remainder of the test in an identical manner to lot 12.

Observations

1. The difference in winter management produced a significant difference in winter gain, which was reduced somewhat during the summer and fattening phase, but in total gain for all phases the steers wintered in drylot gained 32 pounds per head more than those wintered on pasture. This was a statistically significant difference. In addition, they had a higher dressing percentage and produced slightly superior carcasses.

2. Except for the gain and possibly the dressing percentage, the overall differences produced by the two treatments were somewhat small but in every case it favored steers wintered under drylot conditions.