

The Value of Diethylstilbestrol Implants¹ and Implants Plus an Antibiotic² for Wintering Steer Calves, 1960-61 (Project 253-6).

C. L. Drake, E. F. Smith, B. A. Koch, D. Richardson, and F. W. Boren

Thirty-four good-to-choice Hereford steer calves from near Alpine, Texas, were randomly assigned (Snedecor's³ randomization table) to three treatments:

Lot 19. Control.

Lot 20. Each steer implanted with 24 mgs. of diethylstilbestrol in the right ear.

Lot 21. Each steer implanted with 24 mgs. of diethylstilbestrol in the right ear and fed 70 mgs. of Aureomycin daily, mixed with sorghum grain.

Each animal in each lot received daily 5 lbs. of sorghum grain, 4 lbs. of alfalfa hay, and prairie hay free choice. They will be grazed and fattened during the summer and fall of 1961. Some will be reimplanted with diethylstilbestrol to collect more information on its use in a wintering, grazing, and fattening program.

Observations

Weight gains were not significantly affected by either stilbestrol implants or Aureomycin; however, the combination treatment administered to lot 21 apparently reduced the feed required per 100 lbs. of gain compared with the controls (lot 19).

Table 8

The value of diethylstilbestrol implants with and without chlortetracycline (aureomycin) for wintering steer calves.

December 2, 1960, to March 24, 1961—112 days.

Treatment	Control	Stilbestrol implant	Stilbestrol implant and Aureomycin
Lot number	19	20	21
Number of steers	14	10	10
Initial wt. per steer, lbs.	536	521	520
Daily gain per steer	0.95	1.01	1.08
Standard error of mean	.06	.04	.08
Daily ration per steer, lbs.:			
Sorghum grain	5.0	5.0	5.0
Alfalfa hay	4.0	4.0	4.0
Prairie hay	8.7	8.0	8.1
Salt (free choice)			
Stilbestrol implant, 24 mgs.	No	Yes	Yes
Aureomycin, 70 mgs. per head daily	No	No	Yes
Feed per cwt. gain, lbs.:			
Sorghum grain	523	493	457
Alfalfa hay	418	395	370
Prairie hay	927	791	748

A Comparison of Feeding Hay to Steers on Bluestem Pasture and in Drylot, 1960-61 (Project 253-2).

C. L. Drake, E. F. Smith, F. W. Boren, and B. A. Koch

This study was designed to compare winter bluestem pasture with drylot as a place to winter calves. The same ration, alfalfa and prairie hay, was fed to both groups.

1. Diethylstilbestrol implants (Stimplants) were furnished by Chas. Pfizer and Co., Inc., Terre Haute, Ind.

2. Chlortetracycline (Aureomycin) was furnished by the American Cyanamid Co., Pearl River, N.Y.

3. George W. Snedecor. Statistical Methods. Iowa State University Press, Ames, Iowa (1959).

The following experimental treatments were used:

Pasture 8. Fourteen steers wintered in a 139-acre bluestem pasture from December 2, 1960, to March 24, 1961, and fed 4 pounds of alfalfa hay per head daily. Prairie hay and salt were offered free choice.

Lot 22. Fourteen steers wintered in a drylot 50 x 120 feet, without shelter and fed the same as those in pasture 8.

Observations

The results of this test are shown in Table 9. The steers in drylot consumed 2 pounds more prairie hay per head daily and gained slightly more than those wintered on bluestem pasture; however, the difference in gain was not statistically significant.

These steers will be grazed together this summer to determine the influence of different regimes on summer grazing gains.

Table 9

A comparison of feeding hay to steers in drylot and on bluestem pasture. December 2, 1960, to March 24, 1961—112 days.

Lot number	22	8
Number of steers per lot	14	14
Feeding area	Drylot	Bluestem pasture
Initial wt. per steer, lbs.	490	512
Daily gain per steer	0.41	0.32
Standard error of mean	.03	.03
Daily ration per steer, lbs.:		
Alfalfa hay	4.0	4.0
Prairie hay	10.2	8.3
Salt (free choice)		
Bluestem pasture	No	Yes

Different Methods of Managing Bluestem Pastures, 1960 (Projects 253-3 and 253-5).

E. F. Smith, K. L. Anderson, B. A. Koch, F. W. Boren, and C. L. Drake

This experiment was designed to determine the effect of different stocking rates, of deferred grazing, and of pasture burning on cattle performance, productivity of pastures, and range condition as determined by plant population changes. In addition to the yearly report, a summary of cattle gains for the past 11 years of the study is included.

Experimental Procedure

Two-year-old Hereford steers with an average USDA feeder grade of high good were used to stock the pastures in 1960. They had been purchased as calves from near Fort Davis, Texas, and were used in this experiment in 1959 as yearlings. During the winter of 1959-60, prior to this grazing trial, they were fed sorghum silage and alfalfa hay in drylot until about March 1 when they were moved to a bluestem pasture where they were fed alfalfa hay until the grazing season started.

The experimental treatment for each pasture was:

Pasture 1. Moderate stocking rate, 3.7 acres per steer.

Pasture 2. Overstocked, 2.6 acres per steer.

Pasture 3. Understocked, 5.4 acres per steer.

Pastures 4, 5, and 6. Deferred grazing at the moderate stocking rate, 3.7 acres per steer. All steers were grazed on pastures 4 and 6 from May 4 to July 6. They were then moved to pasture 5 where they remained until September 8. From this date until September 29 they were allowed to graze in all three pastures.

Pasture 9. Burned April 7, 1960, moderate rate of stocking.

Pasture 10. Burned April 7, 1960, moderate rate of stocking.

Pasture 11. Burned May 4, 1960, moderate rate of stocking.