

Level of Protein for Heifer Calves Wintered on Bluestem Pasture, 1963-64 (Project 253).

C. V. DeGeer, E. F. Smith, D. Richardson, and D. L. Good

The 66 heifers used in this study were good-to-choice Herefords purchased near Fort Davis, Texas, assigned to treatments on a random-weight basis.

The heifers were rotated between pastures so any differences due to pastures were minimized. Dicalcium phosphate was fed to standardize phosphorus intake between groups.

The results are reported in Table 39.

The heifers receiving only sorghum grain lost weight during the winter, an average of 0.30 pound each daily. As the amount of soybean meal increased in the ration, performance improved. Heifers receiving 1 pound of soybean oil meal and 1 pound of sorghum grain per head daily gained 0.25 pound per head daily and where the soybean meal was increased to 1.7 pounds daily, gain increased slightly to an average of 0.35 pound per head daily.

These heifers will be bred during the summer to study the effect of the protein levels on reproductive performance.

Table 39  
Level of protein for heifer calves wintered on bluestem pasture, December 6, 1963, to March 30, 1964—115 days.

Treatment	Sorghum grain	Sorghum grain and soybean oil meal	Sorghum oil meal
Lot no. ....	1	2	3
No. of heifers ....	11	11	11
Initial wt., lbs. ....	433	424	427
Daily gain per head, lbs. ....	-0.35	-0.25	0.34
Daily ration, lbs.:			
Ground sorghum grain .....	2	2	1
Soybean oil meal .....	.....	.....	1
Dicalcium phosphate .....	0.1	0.1	0.075
Vitamin A, I.U. ....	.....	.....	15,000
Bluestem pasture .....	Free choice	Free choice	Free choice
Salt .....	Free choice	Free choice	Free choice

1. Sorghum grain was fed early in the trial.