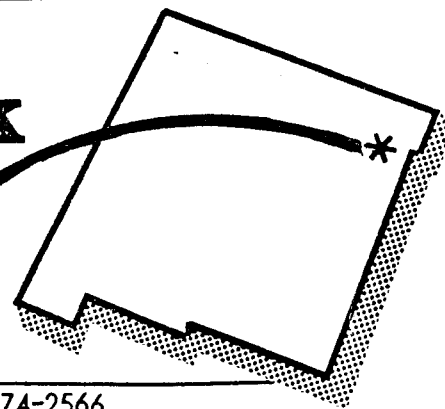




Clayton Livestock Research Center

PROGRESS REPORT



Route 1 Box 109 Clayton, New Mexico 88415 Tel. (505) 374-2566

Progress Report No. 11 (September, 1979)

SUPPLEMENTATION OF WHEAT PASTURE WITH ALFALFA HAY DURING THE FINAL MONTH OF A GRAZE-OUT

Glen P. Lofgreen

In 1978, 120 acres of wheat pasture were used at the Clayton Livestock Research Center in a graze-out program. During the final month 241 yearlings weighing 500 pounds lost an average of 30 pounds per head. The cattle were removed on June 5. In this immediately past season (1979) a similar program was used on 120 acres of wheat pasture except that during the last 30 days (ending May 31) the field was divided in half with a hot wire and the steers grazing one half the field were supplemented with an average

of approximately 4.25 lb of alfalfa hay daily. Cattle grazing the other half of the field were not supplemented.

Initially, 107 head were in the supplemented group and 108 were not supplemented. It soon became apparent that the supplemental alfalfa was sparing the forage and 32 head were moved from the unsupplemented to the supplemented group resulting in 139 being supplemented and 76 remaining in the unsupplemented group. At the conclusion of the

Item	Wheat pasture alone	Wheat pasture plus Alfalfa hay
Number of cattle	76	139
Average initial weight, lb	590	615
Days	30	30
Total gain, lb ¹	1,564	5,588
Daily gain, lb ¹	.69	1.34
Total gain at the unsupplemented rate, lb		2,877
Extra gain from supplemented alfalfa hay, lb		2,711
Alfalfa hay fed, lb		17,880
Alfalfa hay per lb of extra gain, lb		6.60
Cost per lb of extra gain, ¢ ²		26.40
Total cost of alfalfa hay, \$ ²		715.20
Value of extra weight gain, \$ ³		1,870.59
Return over hay cost, \$		1,155.39

¹ Corrected for .15 lb per head per day lower rate of gain for supplemented cattle during first 28 days on full feed.

² Hay priced @ \$80 per ton and weight gain valued @ 69¢ per pound.

30-day period no differences could be seen in the amount of forage remaining in the two halves of the field. At the conclusion of the graze-out all cattle were placed in the feedlot on a finishing ration.

The results of the final 30-day comparison are shown in the table. During the first 28 days following removal from pasture and feeding a finishing ration, the cattle supplemented on wheat pasture gained 3.68 lb per head daily while those which received no supplement on pasture gained 3.83. The difference of .15 lb per day was deducted from the gain of the supplemented cattle to arrive at the tabular value of 1.34 lb per

head per day. Even with this correction the supplement of approximately 4.25 lb of alfalfa hay daily resulted in an increased gain of .65 lb per day at a cost of 26.40¢ per pound, with alfalfa charged at \$80 per ton. The extra gain would be worth 44.85¢ if the gain is valued at 69¢ per lb. At these assumed values for the cost of alfalfa and the value of the gain, a \$715.20 investment in alfalfa hay returned a gross of \$1,870.59 or \$1,155.39 above the cost of the hay. This amounts to \$8.31 per head in 30 days. No charge was included for getting the hay to the cattle. One could apply his own costs to the data to determine if such a procedure might pay in his situation.

Please visit the Clayton Livestock Research Center at your convenience. Temporary winter pastures have been planted and the center-pivot irrigation system is in operation. A load of light weight calves has recently arrived from Florida and they are being fed different rations during a 28-day receiving period.

The 1980 Livestock Research and Cattle Growers Short Course will be held at New Mexico State University in Las Cruces on February 18-19, 1980. Mark your calendar!

A. B. Nelson

A. B. Nelson, Head
Department of Animal and Range Sciences

**Agricultural Experiment Station
NEW MEXICO STATE UNIVERSITY
Las Cruces, New Mexico 88003**

L. S. Pope, Director

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