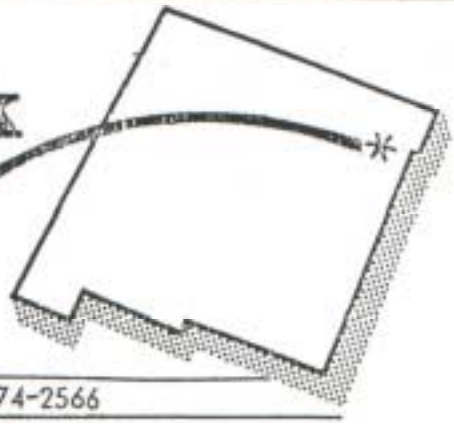
Agricultural Experiment Station U.S. Department of Agriculture

Clayton Livestock Research Center



PROGRESS REPORT

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

Periodic progress reports of research at the Clayton Livestock Research Center will be prepared by Dr. Glen Lofgreen, Superintendent, in order to keep you informed of research findings and programs at the Center. An open house and dedication of the facilities will be held on October 10, 1978. Also, the Fort Stanton Experimental Ranch (near Capitan) tour and dedication will be August 30, 1978 beginning at 9:30 a.m.

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

Progress Report 1 (May 1978)

STARTING RATIONS FOR NEWLY RECEIVED CALVES

In October of 1977, a study was initiated at the Clayton Livestock Research Center to obain information on the nutrition and handling of newly received cattle. Calves were purchased in Florida and shipped to the Center arriving on October 27, 1977, December 2, 1977, January 14, 1978 and February 25, 1978. A total of 514 calves have been studied to date. The purpose of this report is to present the results obtained in a comparison of three energy levels using receiving rations containing milo as the grain. Additionally, each ration was fed either with or without free choice alfalfa hay.

The composition of the three rations is shown in table 1.

The calves were processed off truck unless they arrived in late afternoon or at night in which case they were processed the next

Table 1. Composition of the rations

Ingredient	Percent Concentrate		
	25	50	75
	Percent Composition		
Alfalfa hay	60.0	45.0	20.0
Cottonseed hulls	5.0	5.0	5.0
Flaked milo	3.3	24.5	46.15
Rice bran	3.5	3.5	3.5
Ground corn	3.5	3.5	3.5
Cottonseed meal	3.35	6.0	8.2
Fat	3.0	3.0	3.0
Molasses	7.0	7.0	7.0
Urea	.25	.5	.75
Ground limestone	-	1.0	2.0
Sodium tripolyphosphate	.6	.5	.4
Trace mineralized salt	.5	.5	.5
Vitamin A	----------1000 IU/lb----------		

morning. Processing consisted of castrating, branding, dehorning, vaccinating for IBR, PI_3, Blackleg and Malignant edema, worming, treating with a pour-on and the administration of 500,000 units of vitamin A. Rectal temperatures were recorded and half the calves were treated with 35 cc of Oxytetracycline (approx. 5 mg per pound) for three successive days as a preventive medication program.

Table 2 shows a comparison of the three energy levels. Calves on the intermediate energy level ate the most total feed, gained the most weight and made the cheapest gain. The lowest energy ration produced the poorest results. Much of the difference betwe the two higher energy rations is due to t fewer deads on the intermediate ration. Even if the deads are charged equally to all rations, the low energy ration produced the poorest results with the two higher energy rations producing comparable results.

Subsequent reports will present the results of providing free choice alfalfa and the three day administration of Oxytetracycline.

Table 2. Comparison of energy levels

Items Compared	Percent Concentrate		
	25	50	75
Number of calves	172	170	172
Death loss	8	4	8
Percent of calves treated	85	82	84
Treatments per calf	6.5	6.6	7.2
Percent returns	19	17	20
Medication cost per head, $	3.64	3.63	4.12
Daily feed intake, lb			
Milled ration	7.28	7.84	7.43
Alfalfa hay	2.19	2.05	1.57
Total	9.47	9.89	9.00
Daily weight gain from arrival, lb	1.18	1.66	1.40
Feed per pound gain, lb	8.03	5.96	6.43
Cost per pound gain from arrival, ¢			
Feed	42.72	31.66	34.72
Processing and medication	15.41	10.93	14.21
Total	58.13	42.59	48.93