

Agricultural Experiment Station  
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 Publication

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to

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 AGRIC. ENG. DEPT.

Average feed cost for both steers and heifers for the four-year period is \$3.20. Average gain for

**Table 2. Average Weights and Gains of Calves in the High Energy Ration Trial.**

	1968	1969	1970	1971	4-yr. Avg.
<b>Steers</b>					
Days on trial	20	17	21	20	20
Number of head	48	39	43	49	179
Avg. Oct. weight per head	381.6	386.0	388.3	364.2	380.0
Avg. Nov. weight per head	403.2	414.4	424.4	386.9	407.2
Avg. weight gain per head	21.6	28.4	36.1	22.7	27.2
Avg. daily gain per head	1.08	1.67	1.72	1.14	1.40
<b>Heifers</b>					
Days on trial	20	17	21	20	20
Number of head	49	54	44	51	198
Avg. Oct. weight per head	370.5	382.5	373.2	342.4	367.2
Avg. Nov. weight per head	387.6	404.4	410.1	361.8	391.0
Avg. weight gain per head	17.0	21.9	36.9	19.4	23.8
Avg. daily gain per head	0.85	1.25	1.76	0.97	1.21

the feeding period for both steers and heifers for the four-year period is 25.5 pounds. At this rate of gain, the required return per pound of beef to pay the feed cost is 12.5 cents. Average November selling price for 400 pound calves at Dickinson over the past four years has been about \$36 to \$40 for steers and \$31 to \$34 for heifers. Using these prices as a basis, feeding high energy rations to calves for three weeks after weaning has returned between \$5.25 and \$6.25 per head over feed costs.

Steers gained faster in three out of four trials, and were more efficient to feed than were heifers.

It should be emphasized that this trial represents a very minimum feeding period of 20 days following weaning. The calves from this trial go directly to other feeding trials where they gain two pounds or more per day until they reach slaughter weight. They could be continued on the high energy ration for any length of time desired in excess of 20 days if the intent of the producer was to sell them as backgrounded calves.

It should also be emphasized that calves at the Dickinson Experiment Station are **always** vaccinated for blackleg and malignant edema, and for type C and D enterotoxemia (over-eating disease) before being fed high energy ration after weaning.