

YOUR RATION CAN FIT YOUR FEED SUPPLY

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North Dakota farmers and ranchers combine their excellent feed grains and hay in many ways to make suitable fattening rations for feeding calves from weaning until they are ready for market. Profitable feeding depends not only on having rations that will produce good feedlot gains, but also on rations that will use home grown feeds to the best possible advantage.

Both gain and return per head over feed cost were good in this trial comparing three different rations which, except for the mineral supplement, were made up entirely of home-grown feeds.

Ration 1 was made up of oats, chopped tame hay, alfalfa and minerals. The oats was fed whole until the calves reached a weight of about 600 pounds, after which it was ground. Each month, beginning when the calves weighed about 600 pounds, 15 per cent of the oats was replaced with barley until the barley made up 60 per cent of the grain in the ration. In this ration the grain, hay and minerals were self-fed separately.

Table 1. Rations Fed Per Head Per Day.

Ration component	Ration 1 Lbs./day	Ration 2 Lbs./day	Ration 3 Lbs./day
Oats	10.35	12.32	8.66
Barley	3.91	—	3.68
Alfalfa	1.07	0.87	0.87
Tame hay	2.44	3.39	3.40
Minerals	0.20	0.20	0.20
Total	17.97	16.78	16.81

Table 2. Feed Cost and Cost of Gain Per Head.

Cost of:	Ration 1	Ration 2	Ration 3
Oats	\$ 58.57	\$ 69.71	\$ 49.04
Barley	22.92	—	21.55
Alfalfa	4.43	3.59	3.60
Tame hay	7.27	10.10	10.12
Minerals	3.18	3.18	3.18
Grinding	4.24	5.55	5.56
Total cost per head	\$100.61	\$ 92.13	\$ 93.05
Feed cost per hundredweight gain	\$ 15.00	\$ 13.82	\$ 14.16

Douglas is animal husbandman and Nelson is assistant animal husbandman, Dickinson Experiment Station.

Ration 2 was made up of ground oats 75 per cent, tame hay 20 per cent and alfalfa 5 per cent, plus minerals. This ration was self-fed as a complete mixed ration.

Ration 3 was made up the same as Ration 2 at the start. After the calves weighed about 600 pounds, 15 per cent of the oats was replaced with barley each month until the barley made up 60 per cent of the grain in the ration. This ration also was fed as a complete mixed ration.

The mineral mixture for all three rations was made up of three parts di-calcium phosphate and one part trace mineral salt, and was fed at the rate of 0.2 pound per head per day.

Both complete mixed rations (2 and 3) were processed in a portable grinder-mixer, using a 3/16-inch screen for the oats and a 1-inch screen for the hay.

Table 3. Weights, Gain, Carcass Data and Return.

Data on:	Ration 1	Ration 2	Ration 3
Avg. initial weight	430.0	432.9	430.7
Avg. final weight	1100.7	1099.3	1087.9
Avg. gain per head	670.7	666.4	657.1
Avg. daily gain	2.03	2.01	1.98
Avg. hot carcass weight	663.7	654.3	667.7
Avg. grade ¹	10.00	9.14	8.57
Avg. dressing per cent	60.30	59.52	61.38
Avg. carcass value	\$328.54	\$319.64	\$323.57
Return per head over feed cost	\$227.93	\$227.52	\$230.53

¹Choice 10, 11, 12; good 7, 8, 9.

Summary

These data are from a single year's trial, and as such are insufficient to draw positive conclusions. They do show, however, that any of the rations used produced excellent gains over a long feeding period of 331 days; that the lowest feed costs per hundredweight gain was obtained with Ration 2, 75 per cent oats, tame hay and minerals; that feed cost per hundredweight gain at \$15 or less for all rations makes all three rations efficient and economical; and, that the return per head over feed costs was a profitable return, and was practically the same for all three rations.