

# Sell Your Feed Oats as Beef

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North Dakota farmers produced more than 100 million bushels of oats in 1971. Plump, heavy, nutritious and easy to feed, this oats is equal to the best oats grown anywhere in the nation, and is worth about 50 cents a bushel on the cash grain market.

Feeding trials at the Dickinson Experiment Station have shown that the returns from feed grain can be more than doubled if the grain is marketed as beef.

As an example, oats has been fed to calves from weaning to slaughter in trials conducted over the past two years. In the 1970-71 trial, oats was self-fed in three different forms; whole, rolled and ground. The ration for all trials also included hay and minerals, hand fed. Rations as fed for each trial are shown in Table 1.

Feed costs for this trial were figured at the following rates: oats, \$55 per bushel; tame hay, \$18 per ton; alfalfa hay, \$25 per ton; mineral mix, \$96 per ton; and processing, \$2 per ton.

The calves in these trials were started on oats and over a three-week period were brought up to a feeding of seven pounds per head per day before being given access to self-feeders.

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At the beginning of these trials the calves weighed between 430 and 440 pounds. They were finished after 331 days on feed, weighing between 1,065 and 1,100 pounds. Average gain per head for the entire trial was slightly over 650 pounds.

Table 2 summarizes the results of the 1970-71 trial.

**Table 2. Data from 1970-71 self-fed oats trial.**

Data on:	whole oats	rolled oats	ground oats
Avg. initial weight per head	432.1	430.7	440.0
Avg. final weight per head	1065.0	1101.4	1098.3
Avg. gain per head	632.9	670.7	658.3
Days fed	331	331	331
Avg. daily gain per head	1.91	2.03	1.99
Cost per head per day, cents	30.65	31.16	30.72
Hot carcass weight per head	618.0	656.4	652.0
Avg. dressing per cent	58.03	59.60	59.40
Avg. grade <sup>1</sup>	10.10	10.14	8.33
Avg. carcass value <sup>2</sup>	\$301.96	\$320.12	\$314.38

<sup>1</sup>Choice - 10, 11, 12, good - 7, 8, and 9.  
<sup>2</sup>Choice at \$49.50, good at \$47.00.

In the 1969-70 trial, only whole oats and rolled oats were compared. Table 3 shows the results for both trial periods with whole and rolled oats.

**Table 1. Ration fed and cost per head in the 1970-71 trial.**

Ration component	whole oats		rolled oats		ground oats	
	lbs./day	cost/cents	lbs./day	cost/cents	lbs./day	cost/cents
Oats	15.01	25.67	14.46	24.73	14.22	24.32
Tame hay	1.73	1.56	1.73	1.56	1.73	1.56
Alfalfa	1.97	2.46	1.97	2.46	1.97	2.46
Minerals	0.20	0.96	0.20	0.96	0.20	0.96
Processing	—	—	—	1.45	—	1.42
Total	18.91 lbs.	30.65¢	18.36 lbs.	31.16¢	18.12 lbs.	30.72¢

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DIRECTOR

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**Table 3. Two-year results with whole vs. rolled oats.**

Data on:	whole oats		rolled oats	
	1969-70	1970-71	1969-70	1970-71
Agv. initial weight per head	370.6	432.1	370.0	430.7
Avg. final weight per head	1005.6	1065.0	1060.7	1101.4
Days fed	314	331	314	331
Avg. daily gain per head	2.02	1.91	2.20	2.03
Hot carcass weight per head	571.9	618.0	636.1	656.4
Avg. dressing per cent	56.87	58.03	59.97	59.60
Avg. grade	7.38	10.10	9.29	10.14
Feed cost per hundred-pound gain	\$14.26	\$16.03	\$13.19	\$15.37

### Summary

These trials show that the high quality calves produced by North Dakota farmers and ranchers can be self-fed economically from weaning to slaughter, using oats and hay plus minerals.

Although rolled oats has given the best returns of the three rations fed in the trials reported here, rate of gain, feed efficiency and carcass quality have been satisfactory for all three rations.

Until the calves reached a weight of 600 pounds, gains were as good with whole oats as they

were with rolled or ground oats. Beyond this growth stage, processed feed produced the best gains. About 80 pounds less feed was required to produce 100 pounds gain with both ground and rolled oats.

It should be emphasized that calves in these trials are vaccinated for blackleg and malignant edema, and for type C and D enterotoxemia (over-eating disease) before being fed high energy rations.

### FROM THE DIRECTOR

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Until more disease and insect resistant varieties become available, growers can minimize losses through management practices. Crop rotation, plowing down sunflower refuse in the fall, early season control of volunteer plants, destruction of wild sunflowers and timely application of approved insecticides will help to minimize losses.

Sunflowers are particularly attractive to birds and considerable damage has resulted in isolated fields. A chemical repellent is now under study.

Visitors are always welcome to visit the research plots located on the NDSU farm crops research site west of the campus, either on formally organized tours or by appointment with sunflower researchers.