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## EC882 Feed Fed - Gains in Weight - Money Records of 4-H Beef calves Nebraska 4-H Baby Beef Club Members Nebraska 1946

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Nebraska  
COOPERATIVE EXTENSION WORK  
IN AGRICULTURE AND HOME ECONOMICS

U. of N. Agr. College & U. S. Dept. of Agr. Cooperating  
W. H. Brokaw, Director, Lincoln

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FEED FED -- GAINS IN WEIGHT -- MONEY RECORDS  
OF

4-H BEEF CALVES  
NEBRASKA 4-H BABY BEEF CLUB MEMBERS  
NEBRASKA, 1946

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INTRODUCTION

During the fall of 1946, 4-H Beef Calf Club record books were examined and collected from Boone, Chase, Cheyenne, Cuming, Dawson, Douglas, Fillmore, Otoe and York Counties, Nebraska. Nearly one thousand record books were checked in these twelve counties. Reports of two hundred and twenty one calves were selected to use in this study. All the records that showed complete details were used. They gave the kinds, amounts and price of feeds fed; the feeding dates, the weights and costs of the calves.

This story includes the different kinds and amounts of feeds, the cost of these feeds and other small cash expenses of feeding and caring for the calves. The cost of the feed and other cash costs are about 85 percent of the total expenses of fattening a calf. There has been no charge made for the work of the club member or for the shed or barn used. Premiums won or costs of showing the calves at fairs are not put into this report. The feed fed to the calves and the gains in weight are shown in table I. The cash expenses and receipts are given in table II. The 221 records were divided into six groups according to amount of feed fed per 100 pounds of gain.

RESULTS OF BUYING, FEEDING AND SELLING  
4-H BABY BEEVES, NEBRASKA, 1946

(All figures used in this story are averages for the number of calves in each group and are taken from tables I and II.)

GROUP 1. CALVES

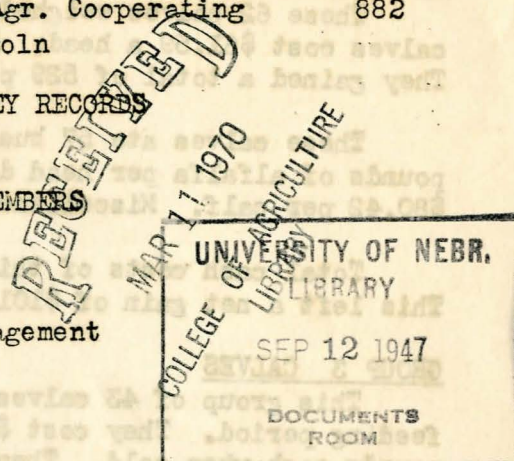
These 29 calves weighed 387 pounds a piece when they were put on feed. They cost \$62.87 a head. They were fed 304 days and weighed 935 pounds when sold. They gained 548 pounds a piece or 1.8 pounds per day.

These calves ate 48 bushels of corn, 174 pounds of protein supplement and 752 pounds of alfalfa hay per head during the feeding period. This feed cost \$69.22 per calf. Miscellaneous costs were \$2.83.

Total cash costs, including the cost of the calf were \$134.92. The calves sold for \$264.74 and left a net gain to their owners of \$129.83 per head.

The feed cost was \$12.63 for each 100 pounds gain. This was the least of any group.

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## GROUP 2. CALVES

These 62 calves weighed 369 pounds a piece, when they were put on feed. These calves cost \$61.59 a head. They were fed 265 days and weighed 898 pounds when sold. They gained a total of 529 pounds per head or 2 pounds each day.

These calves ate 57 bushels of corn, 129 pounds of protein supplement and 934 pounds of alfalfa per head during the feeding period. This feed cost a total of \$80.42 per calf. Miscellaneous costs were \$4.14.

Total cash costs of this group of calves were \$146.15. They sold for \$247.21. This left a net gain of \$101.06 per head. Feed cost was \$15.20 per 100 pounds gain.

## GROUP 3 CALVES

This group of 43 calves weighed 384 pounds per head at the beginning of the feeding period. They cost \$61.56 a piece. They were fed 306 days and weighed 917 pounds each when sold. They gained a total of 533 pounds per head or 1.74 pounds per day.

They ate 70.9 bushels of corn, 183 pounds of protein and 1087 pounds of alfalfa hay per head during the feeding period. The feed cost was \$102.51 per calf and miscellaneous costs were \$2.54.

Total cash costs for these calves were \$166.61. They sold for \$292.34, leaving a net gain of \$125.73 per head. The feed cost was \$19.20 for each 100 pounds gain.

## GROUP 4 CALVES

This group of 46 calves weighed 385 per head at the beginning of the feeding period. They cost \$54.18 per head which is \$6.66 less than any other group. They were fed 297 days and weighed 899 pounds when sold. They gained a total of 514 pounds per head, which is less than the first three groups. They gained 1.73 pounds per day.

These calves ate 75.5 bushels of corn, 177 pounds of protein supplement and 1443 pounds of alfalfa hay per head during their feeding period. The feed cost was \$106.02 per calf and miscellaneous costs were \$2.65. Total cash costs for these calves was \$162.85. They sold for \$259.71. This left a net gain of \$96.86.

## GROUP 5 CALVES

These 37 calves weighed 462 pounds a piece when put on feed. They cost their owners \$60.84 a head. They were on feed 289 days, and weighed 938 pounds when sold. The gain was 289 pounds per head or 1.65 pounds per day.

These calves were fed 81.4 bushels of corn, 171 pounds of protein supplement and 1456 pounds of alfalfa per head during the feeding period. This feed cost \$113.45 per calf and miscellaneous costs were \$2.50.

Total cash costs, including the cost of the calves, was \$176.87. The calves sold for \$264.74 and left a net gain to their owners of \$114.40. The feed cost was \$23.84 for each 100 pounds gain. These calves sold for \$31.00 per cwt.

## GROUP 6 CALVES

These 14 calves weighed 501 pounds per head when they were put on feed. They cost \$71.02 a head. They were fed 248 days. This is the shortest time any of the calves were fed. They weighed 833 pounds when sold. They gained 332 pounds in weight or a 1.34 pound gain per day. This is the lowest gain of any group.



#### GROUP 6 CALVES (Continued)

These calves were fed 76.6 bushels of corn, 126 pounds of protein and 1222 pounds of alfalfa. The feed cost was \$104.11 per calf. Total cash costs were \$177.24 per calf. These calves sold for \$208.75 and left a net gain of \$31.51 per head. The feed cost was \$31.39 for each 100 lbs. gain. This was the highest feed cost of any group.

#### SUMMARY

Records of 231 calves are used in this story. About the same thing may have happened to all beef calves fed in the State, except "feeder" calves. All calves in the first four groups averaged less than 400 pounds at the beginning. The last two groups averaged between 450 and 500 pounds. All calves averaged less than 1000 pounds when sold.

Group 1 calves made the greatest net gain in weight (548 pounds.) Other groups had less gain following in order from 1 to 6. Groups 1, 3 and 4 were fed about 300 days, the others somewhat less.

Group 2 would probably have done better if fed longer. All groups of calves gained about 1.75 pounds per day, except the last two. One and three-fourths pounds of gain per day is a good gain.

The first two groups made the most profitable gains. Group 3, 4, 5 and 6 probably did not make good use of all the feed fed. It cost too much to feed them. Groups 5 and 6 may not have been as good calves as the others, but this is not shown in the price paid or received for the animals.

These calves all cost about the same, about \$60.00 per head or from \$13.00 to \$17.00 per hundred. The average selling price was \$265.00 per head or from \$25.00 to \$31.00 per hundred. With this difference between the buying and selling prices of \$11.00 to \$14.00 per hundred, most any one could have made money feeding calves in 1946. Usually, the difference between the buying and selling price is only \$2.00 or \$3.00 per hundred.

4-H club boys may get nearly as good prices as this in 1947. But these good prices may not come again for a long time. The price of fat cattle, on the Omaha market, has not been as high as this any other time during the past thirty years.

How can the 4-H club boy or girl be good calf feeders and make a little money any year? If long time average prices are used with these same calves and same feed, they may show something of what would happen any year, feeding 4-H calves. This is shown in Table III and the following narrative.



TABLE I.

FEED FED AND GAINS IN WEIGHT  
4-H CLUB BEEVES  
NEBRASKA 1946

If the 4-H Club Member cannot understand this Table, he should ask his parents, his Club Leader or his County Agent.

Groups of Calves <u>1/</u>	:	:	:	:	:	:	:	:	:
Amounts of digest-	:	Your :	316 to :	556 to :	680 to :	762 to :	901 to :	1,093 to :	:
ible feed fed per	:	Calf :	543 :	647 :	752 :	882 :	1,063 :	1,506 :	:
100 lbs. gain	:	:	:	:	:	:	:	:	:
(Group Number)	:	:	(1) :	(2) :	(3) :	(4) :	(5) :	(6) :	:
Number of Calves	:	:	29 :	62 :	43 :	46 :	37 :	14 :	:
	:	:	:	:	:	:	:	:	:
	:	Average Amounts Per Calf							:
Feed Fed	:	:	:	:	:	:	:	:	:
Bushels of Corn	:	:	48.0 :	57.3 :	70.9 :	75.5 :	81.4 :	76.6 :	:
Lbs. of Protein <u>2/</u>	:	:	174 :	129 :	183 :	177 :	171 :	126 :	:
Lbs. of Alfalfa	:	:	752 :	934 :	1,087 :	1,443 :	1,456 :	1,222 :	:
Total units of feed fed:	:	:	:	:	:	:	:	:	:
that could be digested :	:	:	2,571 :	3,209 :	3,824 :	4,187 :	4,493 :	4,106 :	:
Digestible Units of	:	:	:	:	:	:	:	:	:
feed fed for each 100	:	:	469 :	607 :	717 :	815 :	944 :	1,237 :	:
lbs. gain	:	:	:	:	:	:	:	:	:
Production Gains and	:	:	:	:	:	:	:	:	:
Feeding Period	:	:	:	:	:	:	:	:	:
Beginning Weight	:	:	387 :	369 :	384 :	385 :	462 :	501 :	:
Ending Weight	:	:	935 :	898 :	917 :	899 :	938 :	833 :	:
Net Gain in Weight	:	:	548 :	529 :	533 :	514 :	476 :	332 :	:
Days Fed	:	:	304 :	265 :	306 :	297 :	289 :	248 :	:
Lbs. Gain per Day	:	:	1.80 :	2.00 :	1.74 :	1.73 :	1.65 :	1.34 :	:

Footnotes: 1/ The calves were divided into groups by the amounts of digestible feed fed each calf, from the lowest to the highest amounts. The calf that was fed the least amount of feed is in Group 1. He used 316 units of feed. The calf that received the most feed is in Group 6 and he had 1506 units.

2/ This is boughten feed and is high in feeding value.



TABLE II.

## EXPENSES AND RECEIPTS

From  
4-H BEEF CLUB RECORDS  
NEBRASKA - 1946

All costs and receipts shown in this Table are the averages taken from  
4-H Club records.

Groups	Your Calf	Average Costs and Returns Per Calf					
		1	2	3	4	5	6
Number of Calves		29	62	43	46	27	14
Costs:		\$	\$	\$	\$	\$	\$
Calf		62.87	61.59	61.56	54.18	60.84	71.02
Total feed		69.22	80.42	102.51	106.02	113.45	104.11
All Other <u>1/</u>		2.83	4.14	2.54	2.65	2.58	2.11
Totals		\$134.92	\$146.15	\$166.61	\$162.85	\$176.87	\$177.24
Price paid for each 100 pounds		16.24	16.69	16.03	14.07	13.17	14.17
Feed Cost per 100 lbs. gain		\$ 12.63	\$ 15.20	\$ 19.20	\$ 20.63	\$23.84	\$ 31.39
Total Cost per 100 lbs. gain <u>2/</u>		\$ 13.15	\$ 15.98	\$ 19.70	\$ 21.14	\$ 24.38	\$ 32.05
Total Money Received from sale of calf		\$264.74	\$247.21	\$292.34	\$259.71	\$291.27	\$208.75
Net Returns <u>3/</u>		\$129.83	\$101.06	\$125.73	\$ 96.86	\$114.40	\$ 31.51
Price received for each 100 pounds		28.31	27.52	31.88	28.89	31.05	25.06

Footnotes: 1/ All other costs include salt, minerals, medicines, insurance, interest and miscellaneous.

2/ No costs for labor, housing, or taxes are included.

3/ Net returns are the total moneys left after selling the calf and paying the expenses.



TABLE III.

LONG-TIME AVERAGE PRICES  
4-H BEEF CLUB COSTS  
Nebraska

Using long time average prices, groups 1, 2 and 3, would pay the total cost of feed, labor, housing, interest and taxes and have some profit left for their owners. Groups 4, 5 and 6 would pay little or no profit and might even be a loss. The long time average feed costs, for the last three groups, is more than the long time price of \$11.32 per cwt. received for good to choice fat steers in Omaha.

Groups	Your Calf	Cost and Returns Based on Long-time Averages					
		1	2	3	4	5	6
Number of Calves		29	62	43	46	27	14
Calf		\$ 31.46	\$ 30.00	\$ 31.22	\$ 31.30	\$ 37.56	\$ 40.73
Total feed		39.30	44.91	55.87	60.43	64.11	58.62
Miscellaneous <sup>1/</sup>		2.83	4.14	2.54	2.65	2.58	2.11
Total Gross		\$ 73.59	\$ 79.05	\$ 89.63	\$ 94.38	\$104.25	\$101.46
Feed Cost per 100 lbs gain		\$ 7.17	\$ 8.49	\$ 10.48	\$ 11.75	\$ 13.47	\$ 17.65
Total Cash Cost per 100 lbs gain <sup>2/</sup>		\$ 7.69	\$ 9.27	\$ 10.96	\$ 12.27	\$ 14.01	\$ 18.29
Gross Returns		\$ 105.84	\$ 101.65	\$ 103.80	\$ 101.77	\$ 106.18	\$ 94.29
Net Returns		32.25	22.60	14.17	7.39	1.93	-7.17

Note: Long-time average prices:

Long-time average prices used in figuring Table III are as follows: The ten year average price (1931-1942), paid for good to choice feeder steers in Omaha, has been \$8.13 per cwt. (20 year price not available.) For twenty years (1923-1942) Nebraska farmers received an average of 64 cents per bushel for corn. Alfalfa was \$9.97 per ton for this same period. Oil meal averaged \$2.77 per cwt. for 11 years (1936-1946). Good Choice fat steers averaged \$11.32 per cwt. in Omaha from 1923 to 1942.

- <sup>1/</sup> This is a cash cost of miscellaneous small items that cannot be listed as feed.
- <sup>2/</sup> Includes feed and miscellaneous cash items; it does not include housing, labor or taxes.