MINNESOTA FARM MANAGEMENT SERVICE NOTES

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SOME LIGHT ON BEEF PRODUCTION

Beef Production Returns 1923-24

The question of profitableness in beef cattle feeding is one that attracts the attention of many farmers every fall. While beef cattle can be made the means whereby large quantities of unsalable feeds can be marketed an element of speculation is involved, due to the nature of the business, which most farmers like to avoid.

As bearing on this question the following data obtained from records on nineteen carloads of cattle fed out by farmers in Redwood and Renville counties last winter is presented. There were so many different methods of feeding that it is impossible to make a general statement as to what constituted the best feeding practices. Most of the cattle fed in this region come in the light weight class altho a few carloads of heavy cattle are fed each year. No data from heavy cattle are included in these tables.

Costs and Receipts for Winter of 1923-24

TABLE I

Per Head	Average	Low	High
Initial cost	$28.66	$12.48	$42.15
Feed cost	29.50	15.67	43.31
Labor cost	2.31	1.04	4.90
Other costs	4.86	2.88	7.51
Total cost	65.33		
Pork credit	2.65	1.39	4.02
Manure credit	2.91	1.36	4.80
Net cost	59.77		
Sale value	67.94		
Profit	8.17	-12.94	17.40

The cattle varied in weight from 298 to 685 pounds per head at the beginning of the feeding period. This accounts for the wide range in the initial cost and in part for the wide range in feed cost per head altho the lowest feed cost per head was not with the smallest animals. The variation in the item of labor was due entirely to feeding conveniences. The other costs are made up of interest on the investment in cattle, shelter, marketing expense and other cash costs. This item will vary largely as the investment per head varies.

In order to have broken even the farmer who lost most money per head would have had to receive $6.68 per hundred weight while the one who made the most profit would have needed only $7.16 per hundred weight. In the first case the cattle were sold for $5.64 and in the other for $8.96 per hundred weight. There was a loss of $1.04 per hundred weight in the first instance and a gain of $1.80 per hundred pounds in the latter. This emphasizes the importance of meeting as nearly as possible the market demands in producing a product to sell if one expects to get the highest prices.

Cost to Produce 100 Pounds of Gain

TABLE II

	Average	Low	High
Feed cost	$10.05	$6.96	$22.82
Other costs	2.44	1.82	6.38
Net Cost	10.52	8.54	23.39

Unit Requirements per 100 Pounds of Gain

Grain - lbs.	639	435	996
Silage "	318	210	769
Roughage "	409	134	1110
Pasture - days	7	0	26
Man labor - hours	.27	.14	.80
Horse labor "	.17	0	1.5
Daily gain per head - lbs.	1.58	.87	2.33

The lowest feed cost per hundred pounds of gain was with a load of Hereford calves of high grade. Their feed consisted of shelled corn, oats, silage and millet hay. The same feeds were fed thruout the period. They also made the highest daily gain per head. These calves weighed 325 pounds at the start of the feeding period. The lowest grain requirements per hundred pounds of gain was in a lot which received shelled corn, oats, silage and bundle corn while the lowest roughage requirement was in a lot which received sweet clover hay as the only roughage.

When one buys feeder cattle at so much per pound he would like to know about what price he would have to receive when he sells them to avoid a loss. This can be illustrated by using the average data from these 19 carloads of cattle. The price of feeds used were corn 63 cents per bushel, oats 36 cents, silage $4.50 per ton, alfalfa $15.00, clover $10.00, wild hay $8.00 and bundle corn $8.00. The average initial weight per head was 549 pounds at a cost of $5.22 per hundred weight. Table I shows the average costs per head and it will be noted that the net cost per head was $59.77. The final weight per head of the cattle was 843 pounds which made it necessary for the cattle to sell for $7.09 in order to break even. The necessary margin would be $1.87. Any price the cattle sold for over $7.09 would be clear profit. On the average these cattle returned a profit of 97 cents per hundred pounds.

Trends in the Beef Industry

Table III shows some fluctuations in the beef industry in the United States and Minnesota. The number of cattle on farms include young dairy stock, some of which are used for consumptive purposes. In 1914 the number of cattle which were classed as strictly beef animals was 76 per cent of the cattle on farms, milk cows excluded. In 1923 the percentage had increased to 80 per cent. Of the total number of cattle beef cattle constituted 48 per cent in 1913 and 51 per cent in 1923. The increase in exports was due to European demands. This tended to increase the price of beef which in turn stimulated production. Since 1920 there has been a decrease in both exports and price, which was accompanied by a decrease in number of cattle.

TABLE III

	+Cattle on Farms U.S. thousand head	Minn.	Exports (domestic) million lbs.	Annual consumption per capita beef & veal lbs.	Chicago price per cwt. of good to choice beef on hoof
1914	35855	1173	88	63.3	$9.00
1915	37067	1208	382	60.0	8.70
1916	39812	1275	279	63.4	9.60
1917	41689	1340	359	68.5	12.80
1918	44112	1600	706	72.4	16.40
1919	45088	1632	282	65.5	17.50
1920	43398	1730	148	70.0	14.50
1921	41993	1429	45	66.0	8.80
1922	41977	1343	37	68.7	9.50
1923	42803	1289	33	70.4	10.00

+Milk cows excluded

Possibilities in Minnesota

Since beef cattle have apparently entered upon a more prosperous period many farmers are asking themselves this question. "Shall I expand my beef cattle enterprise." The answer to this question depends upon a good many things.

One must select a type of production which he wishes to follow and work with that end in view. Two types adaptable to Minnesota conditions are at his disposal. Many farms are especially well adapted to the fattening of feeder cattle. The area best suited to this form of production is located in the corn section of the state. It must necessarily be where corn does well and where it is cheap and will naturally be limited to farms which have a large part of their acreage suited to crop production. To be successful in this type of beef production one has to be a good judge of cattle and know when to buy and when to sell. This necessitates a marketing knowledge of livestock which not all men possess. In addition he must be well informed on feeding principles and follow regularity in practices.

The other form of beef production is best suited to farms which have a part of the land available for pasture and from which a considerable amount of cheap feed can be raised from the remaining land. On farms of this type it is possible to maintain a herd of twenty to thirty cows, raise the calves on the cows and feed them out as baby beef. The calves in this type of production would have to be of good quality since they are the only product from a year's keep of the cows, except the manure. It can be seen from this that the yearly cost of each cow can not be very high or one could buy feeder calves more cheaply. One establishing this type of farming would want to plan to stay by it for a period of years.

It cost a farmer in southern Minnesota $29.40 to raise a calf to three months of age in 1922, not allowing any credit for the manure produced. No charge is made against the calves for the milk they got from the cows during this time. In 1923 it cost this same farmer $21.42. The difference was due chiefly to a larger percentage of cows calving and a larger percentage of calves being saved in 1923 than in 1922. This illustrates the value of having all cows produce a calf and under conditions which the calf will live.

L.F.G.