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### FEEDER CATTLE

## COSTS AND RETURNS

1953 - 1954

UNIVERSITY OF MINNESOTA

Institute of Agriculture

and

UNITED STATES DEPARTMENT OF AGRICULTURE

Agricultural Research Service

Cooperating

Report No. 224

Department of Agricultural Economics

University Farm

St. Paul 1, Minnesota

September 1955

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# FEEDER CATTLE COSTS AND RETURNS 1953-1954

#### T. R. Nodland and R. B. Zoller

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#### INTRODUCTION

Variations in feeding practices and in the kinds of cattle fed result in wide differences among different cattle feeders in the cost of gains and in the profits from the feeding operation. This is brought out in a study of costs and returns for different lots of cattle fed out on southern Minnesota farms in the feeding season of 1953 to 195h. This information was obtained from the records kept by members of the Southeastern and Southwestern Minnesota Farm Management Services and the West Central Minnesota Vocational Farm Management Service. The purpose of this report is to make available data regarding the average results from feeding operations and also to provide examples of individual lot records for comparison and study.

The data presented cover individual lots of cattle from purchase as feeders to sale as fat cattle. Three different feeding programs are represented (1) long fed calves, (2) long fed yearlings, and (3) short fed yearlings and two-year-olds. Cattle on feed 2h0 days or less are classed as "short fed" and those fed for longer periods as "long fed". Steers and heifers are combined in these lots. All lots with an average weight of 500 pounds or less per head at purchase are classed as calves.

The variation in average costs and returns among these three classes of cattle was much less than the variations in the same items within each group. Methods of feeding and handling the cattle appear to be more important in the determination of profits than the age of cattle purchased or the length of time they were on feed.

Simple arithmetic averages are used throughout this report. In computing group averages each lot was given equal weight regardless of the number of animals in it.

#### PRICES

The average yearly prices of the principal feeds used in cattle feeding on the farms studied are shown in table 1 for 1953 and 1954. The farm raised feeds are valued at average prices on the farm. Purchased feeds are listed at the price farmers paid for them. Feeds for which there is no established market, such as corn silage, are valued on the basis of their feeding value relative to similar feeds for which a market price is available.

Table 1. Average Annual Feed Prices

	1953	1954
Alfalfa hay, per ton	\$17.50	\$17.00
Timothy or brome hay, per ton	10.10	9.80
Hay silage, per ton	6.20	6.05
Corn silage, per ton	5.85	5.75
Ear corn, per bu.	1.31	1.35
Oats per bu.	.71	.70
Linseed oil meal, per 100 lbs.	4.08	4.20
Soybean oil meal, per 100 lbs.	4.43	5.17

Monthly prices of stocker and feeder cattle at South St. Paul from January 1953 through April 1955 are shown in figure 1. Southern Minnesota farmers secure their feeder cattle from a variety of sources but the South St. Paul quotations are reasonably representative of price trends during this period.

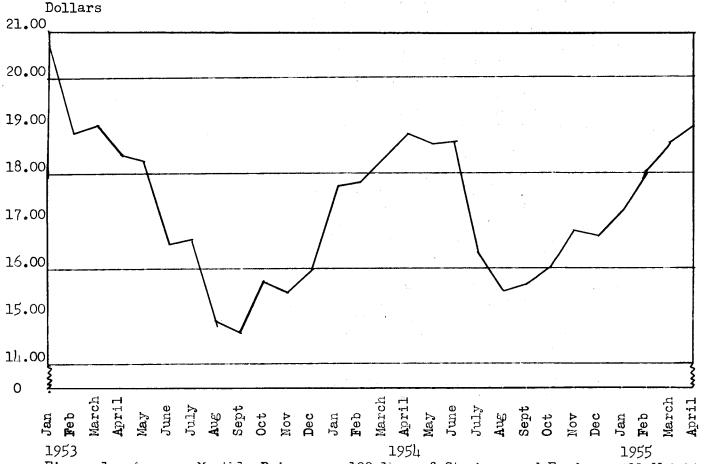


Figure 1. Average Monthly Prices per 100 lbs. of Stockers and Feeders, All Weights South St. Paul, Jan 1953 - April 1955. (Compiled from <u>Livestock Market News Statistics</u> and Related Data USDA, PMA 1953 - 1955.)

#### FEEDING DATA PRESENTED

The number and weight of cattle fed, the quantities of feed used and the costs and returns from feeding operations are shown in tables 2, 3, and 4 for (1) long fed calves, (2) long fed yearlings and (3) short fed yearlings and two-year-olds for the 1953-54 feeding season. The average costs and returns per head for a four year period for these same classes of feeder cattle are presented in figures 2, 3, and 4 on page 12.

#### NUMBERS AND WEIGHTS OF CATTLE FED

The individual lots of cattle for the 1953-54 feeding period ranged from 11 to 202 head. The average gain in weight per head during the feeding period ranged from 355 to 733 pounds for the long fed cattle and from 226 to 446 pounds for the short fed cattle. The range in average daily gains varied from 1.1 to 2.2 pounds for the long fed cattle and 1.6 to 2.2 pounds for the short fed cattle. Death losses occurred in less than half of the lots covered by this study but in a few cases it was an important factor limiting profits from feeding. Daily gains were greatest for the short fed cattle. This was due in part to their larger size and capacity for feed and to the fact that they were pushed along more rapidly.

#### COSTS AND RETURNS

It is generally recognized that a pound of gain can be secured with less feed with calves and yearlings than with older and heavier cattle. In this study it required approximately 3 bushels more corn to produce 100 pounds of gain with the older short fed cattle than was required for the long fed calves and yearlings.

Return over feed cost per 100 pounds of gain in weight is used in this study as a measure of relative profitability of individual lots of cattle and of the different groups compared. In general feed costs were less for the younger cattle, and the price spread, was positive for all lots except those long fed lots which were held over from purchases in 1952 or early 1953.

A return over feed cost results from (1) a positive price spread and (2) gain in weight produced in the feed lot at less cost than the selling price. The data in tables 2, 3, and 4, (lines 28 and 29). show the amount each contributes to the returns over feed cost. In the case of long fed calves approximately two-thirds of the return over feed cost is the result of gains in weight with one-third coming from an average positive price spread of \$1.95. Gains in weight on the older cattle, particularly the short fed yearlings and two-year-olds were more costly to produce (table 4). Without a positive price spread during the 1953-54 feeding period the older cattle would have failed to cover feed costs.

- 4 Table 2. Long Fed Calves, 1953 - 1954

8. Lb. beef produced per lot 30073 16465 17850 71980 24840  Feed Used  Feed per 100 lb. gain 9. Corn, lb. 480 442 383 465 392 10. Small grain, lb. 22 32 21 17 83 11. Commercial feed, lb. 43 45 40 13 41 12. Total Concentrates, lb. 545 519 444 495 516  13. Legume hay, lb. 323 328 218 114 650 14. Other hay and stover, lb. 23 7 7 18 114 650 15. Total dry roughage, lb. 316 328 218 114 650 16. Silage, lb. 410 170 515 592 7 18 17. Pasture days 11 4 7 9 7 7 18 18. Total days on pasture 57 24 7 50 7 18 18. Total days on pasture 57 24 7 50 7 18 19. Frice paid per 100 lbs. \$20.40 \$19.23 \$16.00 \$21.11 \$17.60 20. Price received per 100 lbs. 22.79 26.14 21.80 24.47 23.77 21. Price spread, per 100 lbs. 2.39 6.91 5.80 3.36 6.17  Cost and Returns per lot 22. Total value produced \$7545.81 \$5116.65 \$4687.04 \$19542.61 \$7289.00 23. Total feed cost 5749.13 2829.87 2583.99 11391.14 4590.07 24. Total return over feed cost 1796.68 2286.78 2103.05 8151.47 2698.93  Cost and Returns per 100 lbs. Gain 22.72 \$31.07 \$26.26 \$27.15 \$29.34 26. Feed costs 18.89 17.18 14.48 15.83 18.46 27. RETURN OVER FEED COST 5.83 13.89 11.78 11.32 10.86 28. Return over feed cost from 1.93 4.93 4.46 2.67 5.45		Average		Individ	ual lot numbe	ers
Number of head bought   57   27   30   127   315   335   309   3. Per cent death loss   1.9   0   0   0.8   2.0   0.8   4.0   0.8   2.0   0.8   4.0   0.8   2.0   0.8   4.0   0.8   2.0   0.8   4.0   0.8   2.0   0.8   4.0   0.8   2.0   0.8   4.0   0.8   2.0   0.8   4.0   0.8   0.5   0.5			1	2	3	4
Number of head bought   57   27   36   127   315   335   309   3. Per cent death loss   1.9   0   0   0   0.8   2.0   0.8   4.0   0.8   2.0   0.8   4.0   0.8   2.0   0.8   4.0   0.8   2.0   0.8   4.0   0.8   2.0   0.8   4.0   0.8   2.0   0.8   4.0   0.8   2.0   0.8   4.0   0.8   0.5   0.8   0.5   0.8   0.5   0.8   0.8   0.5   0.5	No. and Wt. of Cattle Fed:					
2. Per cent death loss 1.9 0 0 0.8 2.0 1. Ave. purchase wt. lbs. 113 136 381 153 139 5. Ave. sale wt. lbs. 965 1006 877 1028 945 6. Gain per head, lbs. 965 1006 877 1028 945 6. Gain per head, lbs. 1.6 2.2 1.7 1.7 1.6 8. Lb. beef produced per lot 30073 16165 17850 71980 24810  Feed Used  Feed Used  Feed ger 100 lb. gain 9. 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1. Number of head bought					
1. Ave. purchase wt. lbs.						
Ave. sale wt. lbs.   965   1046   877   1028   9415   6. Gain per head per day, lbs.   1.6   2.2   1.7   1.7   1.6   8. Lb. beef produced per lot   30073   16465   17850   71980   24840						
6. Gain per head, lbs. 552 610 496 575 506 7. Gain per head per day, lbs. 1.6 2.2 1.7 1.7 1.6 8. Lb. beef produced per lot 30073 16h65 17850 71980 2h8h0  Feed Used  Feed Used  Feed per loo lb. gain 9. Corn, lb. 480 4h2 383 465 392 10. Small grain, lb. 22 32 21 17 83 11. Commercial feed, lb. 43 45 40 13 41 12. Total Concentrates, lb. 5h5 519 4h0 13 41 12. Total Concentrates, lb. 5h5 519 4h4 495 516  13. Legume hay, lb. 323 328 218 11h 650 1h. Other hay and stover, lb. 23 516 1b. Total dry roughage, lb. 3h6 328 218 11h 650 1c. Silage, lb. 410 170 515 592 516 1c. Silage, lb. 410 170 515 592 517 1r. Pasture days 11 4 5 50 500 500 500 500 500 500 500 500						
7. Gain per head per day, lbs. 1.6 8. Ib. beef produced per lot 30073 16h65 17850 71980 2h8h0  Feed Used Feed per 100 lb. gain 9. Corn, lb.						
Second   Feed   Used   Feed   Produced   P						<b>1.</b> 6
Feed per 100 lb. gain   180   112   383   165   392   10. Small grain, lb.   22   32   21   17   83   11.   Commercial feed, lb.   13   15   10   13   11   12.   Total Concentrates, lb.   515   519   111   119   195   516   111   11					71980	5/18/10
9. Corn, lb.	Feed Used					
10. Small grain, lb. 22 32 21 17 83 11. Commercial feed, lb. h3 h5 h0 13 h1 12. Total Concentrates, lb. 5h5 519 hhh h9 13 h1 12. Total Concentrates, lb. 5h5 519 hhh h9 1495 516  13. Legume hay, lb. 323 328 218 11h 650 1h. Other hay and stover, lb. 23	<u>-</u>	1.00	110	202	1.40	303
11. Commercial feed, lb.						
12. Total Concentrates, lb. 515 519 hith 195 516  13. Legume hay, lb. 323 328 218 11h 650  14. Other hay and stover, lb. 23						
13. Legume hay, lb. 323 328 218 11h 650 1h. Other hay and stover, lb. 23						
1h. Other hay and stover, lb. 23 15. Total dry roughage, lb. 346 16. Silage, lb. 110 170 170 171 18. Total dry roughage, lb. 110 170 170 171 171 172 172 173 174 175 175 175 175 175 176 177 178 177 178 178 178 179 179 179 179 179 179 179 179 179 179	12. Total Concentrates, 10.					
15. Total dry roughage, ib. 346 328 218 114 650 16. Silage, lb. 410 170 515 592 - 17. Pasture days 11 4 - 9 - 18. Total days on pasture 57 24 - 50 -  Prices of Cattle 19. Price paid per 100 lbs. \$20.40 \$19.23 \$16.00 \$21.11 \$17.60 20. Price received per 100 lbs. 22.79 26.14 21.80 24.47 23.77 21. Price spread, per 100 lbs. 2.39 6.91 5.80 3.36 6.17  Cost and Returns per lot 22. Total value produced \$7545.81 \$5116.65 \$4687.04 \$19542.61 \$7289.00 23. Total feed cost 5749.13 2829.87 2583.99 11391.14 4590.07 24. Total return over feed cost 1796.68 2286.78 2103.05 8151.47 2698.93  Cost and Returns per 100 lbs. Gain 25. Value produced \$24.72 \$31.07 \$26.26 \$27.15 \$29.34 26. Feed costs 18.89 17.18 14.48 15.83 18.48 27. RETURN OVER FEED COST 5.83 13.89 11.78 11.32 10.86 28. Return over feed cost from 1.93 4.93 4.46 2.67 5.45 29. Return over feed cost from 3.90 8.96 7.32 8.65 5.41 30. Return per \$100 feed cost 131 181 181 172 159 30. Return per \$100 feed cost 131 181 181 172 4.49 31. Est. costs other than feed 4.49 4.49 4.49 4.49			328	519	114	050
16. Silage, lb. li10 170 515 592 17. Pasture days 11 li			20R	218	771.	<u> </u>
17. Pasture days 11						- -
18. Total days on pasture   57				)±) -		_
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Cost and Returns per lot  22. Total value produced \$75\\\ 23. Total feed cost 57\\\ 24. Total return over feed cost 1796.68 2286.78 2103.05 8151.\\  Cost and Returns per 100 lbs. Gain  25. Value produced \$2\\\ 26. Feed costs 18.89 17.18 1\\\\ 27. RETURN OVER FEED COST 5.83 13.89 11.78 11.32 10.86  28. Return over feed cost from 1.93 \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	20. Price received per 100 lbs.	2 39				
22. Total value produced \$7545.81 \$5116.65 \$4687.04 \$19542.61 \$7289.00 23. Total feed cost 5749.13 2829.87 2583.99 11391.14 4590.07 2698.93	21. Price spread, per 100 lbs.	2.07	0.71	<b>7.00</b>	J•J0	<b></b>
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Cost and Returns per 100 lbs. Gain       2286.78       2103.05       8151.47       2698.93         25. Value produced       \$24.72       \$31.07       \$26.26       \$27.15       \$29.34         26. Feed costs       18.89       17.18       14.48       15.83       18.48         27. RETURN OVER FEED COST       5.83       13.89       11.78       11.32       10.86         28. Return over feed cost from price spread       1.93       4.93       4.46       2.67       5.45         29. Return over feed cost from feeding       3.90       8.96       7.32       8.65       5.41         30. Return per \$100 feed cost       131       181       181       172       159         31. Est. costs other than feed       4.49       4.49       4.49       4.49       4.49						4590.07
25. Value produced \$24.72 \$31.07 \$26.26 \$27.15 \$29.34 \$26. Feed costs \$18.89 \$17.18 \$14.48 \$15.83 \$18.48 \$27. RETURN OVER FEED COST \$5.83 \$13.89 \$11.78 \$11.32 \$10.86 \$29. Return over feed cost from \$1.93 \$1.93 \$1.46 \$2.67 \$5.45 \$29.34 \$29. Return over feed cost from \$1.93 \$1.93 \$1.46 \$2.67 \$5.45 \$29.34 \$29. Return over feed cost from \$1.93 \$1.93 \$1.46 \$2.67 \$5.45 \$29.34 \$29.34 \$29. Return over feed cost from \$1.93 \$1.93 \$1.46 \$2.67 \$5.45 \$29.34 \$29. Return over feed cost from \$3.90 \$8.96 \$7.32 \$8.65 \$5.41 \$29.34 \$29.34 \$29. Return over feed cost \$1.31 \$1.81 \$1.81 \$1.72 \$1.59 \$29.34 \$			2286.78	2103.05	8151.47	2698.93
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price spread  29. Return over feed cost from 3.90 8.96 7.32 8.65 5.41 feeding  30. Return per \$100 feed cost 131 181 181 172 159 31. Est. costs other than feed 4.49 4.49 4.49 4.49	27. RETURN OVER FEED COST	5.83	13.89	11.78	11.32	•
29. Return over feed cost from 3.90 8.96 7.32 8.65 5.41 feeding 30. Return per \$100 feed cost 131 181 181 172 159 31. Est. costs other than feed 4.49 4.49 4.49 4.49 4.49		1.93	4.93	4.46	2.67	5.45
30. Return per \$100 feed cost 131 181 181 172 159 31. Est. costs other than feed 4.49 4.49 4.49 4.49	29. Return over feed cost from	3.90	8,96	7.32	8.65	5.41
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- 5 Table 2. Long Fed Calves, 1953 - 1954 (continued)

			Individual	lot numbers		
	55	6	7	88	9	10
1.	46	24	36	66	40	90
2.	350	282	332	372	319	305
3.	4.3	0	0	1.5	0	1.1
4.	410	430	446	347	427	329
5.	1043	900	1038	952	956	864
6.	633	470	592	605	529	535
7.	1.8	1.7	1.8	1.6	1.7	1.8
8.	27025	11275	21310	38990	21185	47263
9.	559	258	528	314	522	480
10.	9	-	71	48	-	17
11.	<b>17</b>	69	<u>38</u>	<u>36</u>	51	57
12.	585	327	637	1128	573	554
13. 14. 15. 16. 17.	299 37 336 - 18 110	284 	333 - 333 263 - -	228 <del>-</del> <del>228</del> 141 18 109	101 35 136 510 -	285 1 <u>31</u> 1119 - 21 115
19.	\$18.42	\$16.76	\$17.50	\$20.46	\$18.60	\$13.90
20.	24.65	21.65	23.96	23.43	22.82	22.30
21.	6.23	4.89	6.46	2.97	4.22	8.40
22.	\$7834.91	\$29h7.32	\$5141.48	\$9815.33	\$5555.91	\$13028.61
23.	5073.58	1819.27	4080.57	619h.37	3608.28	9021.89
24.	2761.33	1128.05	2060.91	3620.96	1947.63	1006.72
25.	\$28.99	\$26.14	\$28.82	\$25.17	\$26.22	\$27.56
26.	18.77	16.14	19.15	15.89	17.03	19.08
27.	10.22	10.00	9.67	9.28	9.19	8.48
28.	4.16	4.48	և.86	1.72	3.40	5.20
29.	6.06	5 <b>.52</b>	11.81	7.56	5.79	3.28
30.	154	162	151	158	15հ	144
31.	4.49	և.49	4.49	հ.կ9	4.49	4.49
32.	5.73	5.51	5.18	հ.79	հ.70	3 <b>.</b> 99

Table 2. Long Fed Calves, 1953 - 1954 (continued)

		Average	Iı	ndividual lo	t numbers	
		of 20 lots	11	12	13	14
<b>3</b> 7 -	and III of Cattle Fode					
	and Wt. of Cattle Fed: Number of head bought	57	50	39	202	28
1. 2.	Days on farm	3140	360	302	319	303
3.	Per cent death loss	1.9	0	2.6	3 <b>.</b> 5	. 0
4.	Ave. purchase wt. lbs.	413	3 <b>92</b>	377	465	1,18
5.	Ave. sale wt. lbs.	965	902	1016	920	905
6.	Gain per head, lbs.	552	510	639	455	487
7.	Gain per head per day, lbs.	1.6	1.4	2.1	1.4	1.6
8.	Lb. beef produced per lot	30073	25505	23910	85525	13630
Feed	l Used					
	Feed per 100 lb. gain	1.00	1.90	1.71.	۲ <b>၁</b> ۱.	566
9.	Corn, lb.	480	և89	474	534	12
10.	Small grain, lb.	22		12 60	7 67	76
11.	Commercial feed, lb.	43	23 512	51.6	<del>608</del>	6514
12.	Total concentrates, lb.	545	512	2140		-
13.	Legume hay, 1b.	323	220	205	54	260
14.	Other hay and stover, lb	• 23	137	·	<u> 26</u>	_37
15.	Total dry roughage, lb.	346	<u>357</u>	205	80	<del>297</del>
16.	Silage, lb.	410	682	427	1101	660
17.	Pasture days	11	14	-	25	10
18.	Total days on pasture	<b>57</b>	73		110	50
	ces of Cattle			* /	#a o . aa	<b>A</b> 7 ( F2
19.	Price paid per 100 lbs.	\$20.40	\$17.66	\$23.67	\$19.31	\$16.73
20.	Price received per 100 lbs.	22.79	22.71	24.08	23.36	22.08
21.	Price spread, per 100 lbs.	2.39	5.05	.41	4.05	5.35
	ts and Returns per lot	541 £ 03	# ( 77 O O O	\$5817.61	\$23776.32	<b>\$</b> 3634 <b>.</b> 65
	p-	7545.81	\$6778.00	434.37	18330.27	2996.71
23.		5749.13	4946.37 1831.63	1683.24	5446.05	637.94
24.	Total return over feed cost	1130.00	10)1.0)	1007•24	<u>уддо•о</u> у	001.074
	t and Returns per 100 lbs. Ga	in	<b>\$</b> 26 <b>.</b> 57	\$24.33	27.80	26.66
	Value produced	\$24.72 18.89		17.29	21.43	21.98
	Feed costs	5.83	$\frac{19.39}{7.18}$	$\frac{11\cdot27}{7\cdot04}$	6.37	4.68
27.	RETURN OVER FEED COST	9.09	•			
28.		1.93	3.88	•25	4.30	4.59
29.	price spread Return over feed cost from	3.90	3.30	6.79	2.07	.09
<b>-</b> /•	feeding					
30.		131	137	141	130	, 121
	Est. costs other than feed	4.49	4.49	4.49	4.49	4.49
32.	Estimated net return	1.34	2.69	2.55	1.88	.19

Table 2. Long Fed Calves, 1953 - 1954 (continued)

		Ind	ividual lot	numbers		
•	15	16	17	18	19	20
1. 2. 3. 4. 5. 6. 7. 8.	և5 ևևև 0 և32 1029 597 1•3 26861	54 305 3.7 404 917 513 1.7 25918	11 330 0 477 912 435 1.3 4783	54 393 3.7 420 1058 638 1.6 32325	59 1,71, 6.8 373 1039 666 1.1, 35180	61 407 8.2 394 959 565 1.4 29640
9. 10. 11.	248 - 89 337	850 16 11 877	334 - - - 334	612 95 <u>32</u> 739	603 - 21 <u>1</u> 627	- 516 7 <u>59</u> 582
13. 1h. 15. 16. 17.	22 <del>-</del> <del>22</del> 558 12 73	3h7 31 378 710 3 39	774  774  32 139	340 	529 529 28h 7 52	876 <u>16</u> 892 101 9 49
19. 20. 21.	\$27.77 22.49 -5.28	\$16.87 22.42 5.55	\$20.49 19.02 -1.47	\$27.27 22.88 -4.39	\$30.03 22.h7 -7.56	\$28.55 19.20 -9.35
22. 23. 2lı.	\$5013.51 3778.85 1234.66	\$7019.48 6942.98 76.50	\$332.86 822.54 10.32	\$6և02.7և 69և5.87 -5կ3.13	\$6242.75 7605.92 -1363.17	\$3439.35 7285.70 -3846.35
25. 26. 27.	\$18.66 14.07 4.59	\$27.08 26.79 .29	\$17.41 17.20 .21	19.81 21.49 -1.68	17.75 21.62 -3.87	\$11.60 24.58 -12.98
28.	-3.83	4.49	-1.61	-2.97	-4.40	-6.97
29.	8.42	-4.20	1.82	1.29	•53	-6.01
30. 31. 32.	133 4.49 .10	101 4.49 -4.20	101 հ.կ9 -կ.28	92 4.49 -6.17	82 4.49 -8.36	և7 և.49 -17.47

Table 3. Long Fed Yearlings, 1953 - 1954

					<del></del>			····
		Avera		Ind	ividual ]	Lot numbe	ers	······································
<del></del>		of 16 1		. 22	2 2	3 21	<u>. 2</u> 5	<u>26</u>
No.	and Wt. of Cattle Fed: Number of head bought	6կ	25	99	9 <b>L</b> i	3 70	) 50	) 144
2. 3. 4.	Days on farm Per cent death loss Ave. purchase wt. lbs.	323 0.6 645	248 0	33l 1.0	25	L 251	. 2ĺ <sub>1</sub> ]	373
5. 6. 7. 8.	Ave. sale wt. lbs. Gain per head, lbs. Gain per head per day, lbs Lb. beef prod. per lot	1130 485 1.5 32449	1185 472 1.9	1113 451 1.1	3 1203 L 453 4 1.8	3 355 3 1.1	1230 1491 1 2.0	1289 588 1.6
Feed	Used Feed per 100 lb. gain		,					
9. 10. 11. 12.	Corn, 1b. Small grain, 1b. Commercial feed, 1b. Total concentrates	521 16 55 592	429 - 31 460	25	- 10	2 8	. 102	. <del>-</del>
13. 14. 15. 16. 17. 18.	Legume hay, 1b. Other hay and stover, 1b Total dry roughage, 1b. Silage, 1b. Pasture days Total days on pasture	337 • 39 376 569 10 514	221 221 836	299 482	<u>5</u> <u>146</u> ;	<u>68</u>	32 178 2 736	310
19.	es of Cattle  Price paid per 100 lbs.  Price received per 100 lbs.  Price spread, per 100 lbs.		23.48	22.7]	23.0	3 19.50	24.22	25.80
		185.84	4146.70 1863.71 2282.99	8236.54	4147.92	3901.92	5901.22	20185.20
Cost 25. 26. 27.	and Returns per 100 lbs. Gar Value produced Seed costs RETURN OVER FEED COST	in \$27.04 21.34 5.70	\$35.18 15.81 19.37	\$30.38 18.92 11.46	\$31.85 21.27 10.58	\$25.08 15.68 9.40	\$33.24 23.87 9.37	\$34.54 25.39 9.15
28.	Return over feed cost from price spread	4.38	11.70	7.60	8.82	5.58	9.02	8.49
29.	Return over feed cost from feeding	1.32	7.67	3.86	1.76	3.82	•35	•66
	Return per \$100 feed cost Est. costs other than feed Estimated net return	127 4.49 1.21	222 4.49 14.88	161 4.49 6.97	150 4.49 6.09	160 4.49 4.91	139 4.1.9 4.88	136 4.49 4.66

Table 3. Long Fed Yearlings, 1953 - 1954 (continued)

			]	[ndividua	ıl Lot nu	mbers				
	27	28	29	30	31	32	33	<u>3</u> l4	35	36
1. 2. 3. 4. 5. 6. 7. 8.	52 334 0 630 1151 521 1.6 27080	2l <sub>4</sub> 257 0 261 1079 518 2.0 12l <sub>4</sub> 35	34 303 0 632 1114 482 1.6 16380	29 272 0 750 1112 362 1.3 10510	56 295 0 654 1113 459 1.6 25690	7h 25h 0 70h 1061 357 1.h 26h25	43 353 0 544 993 149 1•3 19311	24 422 4.2 535 1095 560 1.3 12340	158 525 0 579 1312 733 1.4 115835	101 449 2.0 621 1132 511 1.1 49270
9. 10. 11. 12.	1432 - 3 1435	504 14 9 527	628 3 <u>կկ</u> 675	824 57 99 980	632 53 98 783	315 24 196 535	531 19 16 566	և73 38 <u>հե</u> 555	535 36 83 654	253 3 42 298
13. 14. 15. 16. 17.	177 - 177 990 25 132	257 - <del>257</del> - 19 100	405 157 562 672 6 30	152 152 304 139 -	132 <u>16</u> 1148 1207 4 20	83 - 83 1907 lı 1lı	461 114 575 - 8 36	756 22 778 438 -	351 <u>41</u> 392 622 24 175	363 - 363 1111 2 160
19. 20. 21.	\$19.70 22.39 2.69	\$20.53 22.50 1.97		\$19.89 23.80 3.91	\$17.64 22.51 4.87	\$18.62 21.33 2.91	\$21.90 21.21 69	\$21.98 20.75 -1.23	\$29.38 24.57 -4.81	\$27.94 21.00 -6.94
22. 23. 24.	\$69h1.39 h509.26 2432.13	2082.92	3977.92	2945.74	6578.62	7148.18 6589.92 558.76	3639.58	2666.35	24060.77 28175.32 -4114.55	5994.49 9521.19 -3526.70
25. 26. 27.	\$25.63 16.65 8.98	\$24.64 16.75 7.89	24.29	\$31.89 28.03 3.86	\$29.44 25.60 3.84	\$27.04 24.93 2.11	\$20.38 19.10 1.28	\$19.48 21.61 -2.13	\$20.77 24.32 -3.55	\$12.17 19.32 -7.15
28.	3.24	2.14	7.21	8.09	6.93	5.71	83	-1.23	-3.80	-8.67
29.	5.74	5.75	54	23.با-	-3.09	-3.60	2.11	90	•25	1.52
30 31. 32.	154 4.49 4.49	11:7 1:.49 3.1:0	4.49	114 h.49 63	4.49		107 4.49 -3.21	90 -5.62 90	4.49	63 4.49 -11.64

Table 4. Short Fed Yearlings and Two-Year Olds, 1953-54

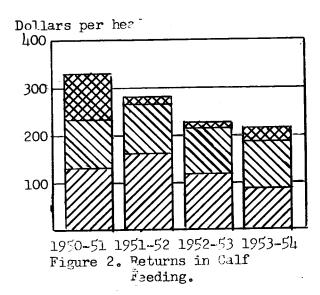
		Averag		· ·	Individ	ual lot	numbers	
		of 16 lot		38	39	40	41	42
27	The of Cottle Fode							•
No. 3	and Wt. of Cattle Fed: Number of head bought	44	14	40	37	32	34	36
2.	Days on farm	178	187	163	131	223	178	181
3.	Per cent death loss	0.2	0	. 0	0	0	0	2.8
4.	Ave. purchase wt. lbs.	699	674	757	613	720	591	807
5.	Ave. sale wt. lbs.	1033	981	1090	883	1166	1066	1099
6.	Gain per head, 1bs.	334	307	333	270	446	375	292
7.	Gain per head per day, 1bs.	1.9	1.6	2.0	2.1	2.0	2.1	1.6
8.	Lb. beef produced per lot	14303	4300	13335	9965	11:285	12770	9390
Feed	Used							
	Feed per 100 lb. gain	رم م	<b>P/</b> 0	2/5	ורס	מ מר	531	406
9.	Corn, lb.	645	768	367 86	452 87	385	15	400
10.	Small grain, lb.	46	<u>-</u> 40	62	31	87		16
11.	Commercial feed, lb.	63 77.	808	515	<del>570</del>	472	93 639	422
12.	Total concentrates, lb.	- 754	000	919				
13.	Legume hay, 1b.	288	419	195	140	350	305	1182
14.	Other hay and stover, lb.	$\frac{3}{602}$	136	<del>-</del>	71.0	350	<del>-</del> 305	<del>1182</del>
15.	Total dry roughage, lb.	<u>291</u>	419	195 817	<u>140</u>	515	814	2066
16.	Silage, lb.	681	18		1004 22	9	514	2000
17.	Pasture days	7 23	56	7 24	60	39	21	
18.	Total days on pasture	2)	50	24	00	<i>)</i> /	2.1	
	es of Cattle	, Mm / m1	#= ~ O	#n 0n	dan oli	#a ( ) o	לאם אים אים שיים לים	<b>#</b> ከሮ ኒን
	Price paid per 100 lbs.	\$16.14	\$15.84					
20.	Price received per 100 lbs.	21.59	24.60	17.60	19.94		23 <b>.</b> 23 5 <b>.</b> 73	5.45
21.	Price spread, per 100 lbs.	5.45	8.76	7.77	6.90	0.50	2012	7.47
	and Returns per Lot	#1 / da   Dd	2001 20	1 (00 10	מללם ממ	1,605,00	1.270 60	מבוו. זיז
	Total value produced	\$4651.75	1012 46	4070.12	1880 20	4095.00	2815.17	21.06 1.7
23.	Total feed cost Total return over feed cost	3492.55	826 11.	2321 20	1572 70	1077 61	11.07 1.5	1017 6
24.	Total return over feed cost	1159,20	000044	2)24.20	TO15017	1/1/01	14/104/	7041.04
	and Returns per 100 lbs. Ga	in #22 03	#1 2 On	<b>ർ</b> -മന് വമ	\$35.66	\$32.86	<b>\$</b> 33 <b>.</b> 7 <sup>7</sup>	\$37.74
	Value produced	\$33.21	\$43.81	_				
26.	Feed costs	23.95 9.26	24.36 19.45					
27.	RETURN OVER FEED COSTS	9.20	17.40			17.04		
28.	Return over feed cost from	11.62	19.21	17.63	15.72	10.16	10.54	16.39
20	price spread Return over feed cost from	-2.36	.24	20	1.07	3.68	1.19	<b>-</b> 5 <b>.</b> 23
29.	feeding	<i>ار ہ ے۔۔</i>	0 - 4	• = 0	±001	J 6 0 0	/	/ <b>V</b> - /
30.	Return per \$100 feed cost	139	180	198	189	173	153	142
	Est. costs other than feed	4.49	4.49					
	Estimated net return	4.77	14.96				7.24	6.67
- •								

Table 4. Short Fed Yearlings and Two-Year-Olds, 1953 - 54 (continued)

			Indiv	ridual lo	ot number	rs				
	43	1414	45	46	47	48	49	50	51	52
1. 2. 3. 4. 5. 6. 7.	51 164 0 563 885 322 2.0 16410	606 869 <b>263</b> 1.8	65 214 0 639 1108 419 2.0 27185	60 221 0 604 963 359 1.6 21549	22 102 0 1034 1260 226 2.2 4960	57 171 0 728 1034 306 1.8 17451	376 1.9	141 164 0 827 1104 277 1.7 39125	23 167 0 549 999 350 2.1 8050	23 239 0 679 1099 120 1.8 9655
9. 10. 11. 12.	595 80 40 715	հղե 46 56 576	728 <u>48</u> 776	702 30 82 814	959 97 40 1096	852 <u>1</u> 11 896	590 - 127 717	· 29 ' 55	611, 262 79 955	901 11h 1015
13. 14. 15. 16. 17. 18.	158 - 158 884 - -	312 - 312 828 - -	200 <u>40</u> <u>240</u> 441 7 30	176 176 807	- - <u>140</u> - 140	218 - 218 745 8 25	207 207 477 26 100	52 1022 5 2	565 - 565 - - -	124 124 176 -
19. 20. 21.	\$13.04 19.99 6.95	\$12.70 18.01 5.31	\$17.64 22.86 5.22	\$17.27 22.52 5.25	\$20.20 22.67 2.47	\$16.65 21.85 5.20	23.05	22.66	\$13.16 18.53 5.37	
22. 23. 24.		2030.00	6296.87	5165.59	1341.05	4766.47		12243.78 11863.85 379.93	2220.34	2954.22
25. 26. 27.	\$32.17 21.50 10.67	\$30.22 19.77 10.45	\$31.46 23.16 8.30	\$31.36 23.97 7.39	\$34.02 27.03 6.99			\$31.29 30.32 .97		\$30.24 30.59 35
28.	12.18	12.21	8.60	8.84	11.35	12.38	5.78	8.63	9.95	5.87
29.	-1.51	-1.76	30	-1.45	-4.36	-5.46	56	-7.66	-9.05	-6.22
30. 31. 32.	150 !!•!49 6•18	153 4.49 5.96	136 4.49 3.81	131 4.49 2.90	126 4.49 2.50	125 4.49 2.43	122 4.49 .73	103 4.49 -3.52		99 4.49 -4.84

The return over feed cost does not tell the whole story as to returns in cattle feeding. Feed is a major item of cost but others such as labor, interest, shelter, equipment, power and some miscellaneous costs must be covered if one wishes to compute net returns. Data covering these items were not available for the farms covered by this study. However, a cost accounting study on similar feeding operations in southern Minnesota in 1953 showed the average cost of these items to be \$4.49 per 100 pounds net gain in weight. 1/ This average charge has been used in tables 2, 3, and 4 in computing the net return from each lot of cattle. The return over all costs thus computed must be regarded as only an approximation. These other costs also vary considerably among different lots of feeders. The range in the study from which they are taken was from \$2.71 to \$6.82 per 100 pounds of cattle produced among the lots included. However, the authors feel that this admittedly rough approximation does throw some additional light on the profitability of cattle feeding.

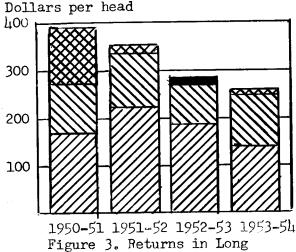
<sup>1/</sup> Agricultural Economics Report No. 217. Institute of Agriculture, University of Minnesota, September, 1954.



#### Legend:

Cost of feeder animal Feed cost Return above feed cost Loss

Note: When a loss occurrs the black area also represents part of the feed cost.



Feeding Yearlings.

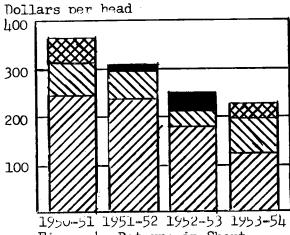


Figure 4. Returns in Short Feeding Yearlings and Two-Year Olds.

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