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FEEDER CATTLE
COSTS AND RETURNS

1950 - 1953

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UNIVERSITY OF MINNESOTA
Institute of Agriculture
and
UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service
Cooperating

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FEEDER CATTLE COSTS AND RETURNS
1950-1953

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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 1952 to 1953. This information was obtained from the records kept by members of the Southeastern and Southwestern Minnesota Farm Management Services. Some data on average feed costs and returns for the period 1950-53 are also shown.

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 240 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 525 pounds or less per head at purchase are classed as calves.

The variation in average costs and returns among these three classes of cattle fed 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. The three-year averages are also simple averages with each year given equal weight.

PRICES

The average yearly price of the principal feeds used in cattle feeding on the farms studied are shown in table 1 for the years 1950 through 1953. 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

	1950	1951	1952	1953
Alfalfa hay, per ton	\$21.00	\$19.00	\$17.00	\$17.50
Timothy or brome hay, per ton	12.20	11.00	9.80	10.10
Hay silage, per ton	6.70	6.00	6.00	6.20
Corn silage, per ton	6.70	6.00	5.75	5.85
Ear corn, per bu.	1.20	1.36	1.34	1.31
Oats, per bu.	.72	.81	.76	.71
Linseed oil meal, per 100 lbs.	3.95	3.85	5.00	4.08
Soybean oil meal, per 100 lbs.	3.95	4.50	5.55	4.43

Monthly prices of stocker and feeder cattle at South St. Paul from January 1952 through April 1954 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.

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 1952-53 feeding season. The average costs and returns for a three-year period for these same classes of feeder cattle are presented in table 5.

NUMBERS AND WEIGHTS OF CATTLE FED

The individual lots of cattle for the 1952-53 feeding period ranged from 10 to 197 head. The average gain in weight per head during the feeding period ranged from 323 to 743 pounds for the long fed cattle and from 193 to 385 pounds for the short fed cattle. The range in average daily gains varied from 1.1 to 2.3 pounds for the long fed cattle and 1.4 to 2.6 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.

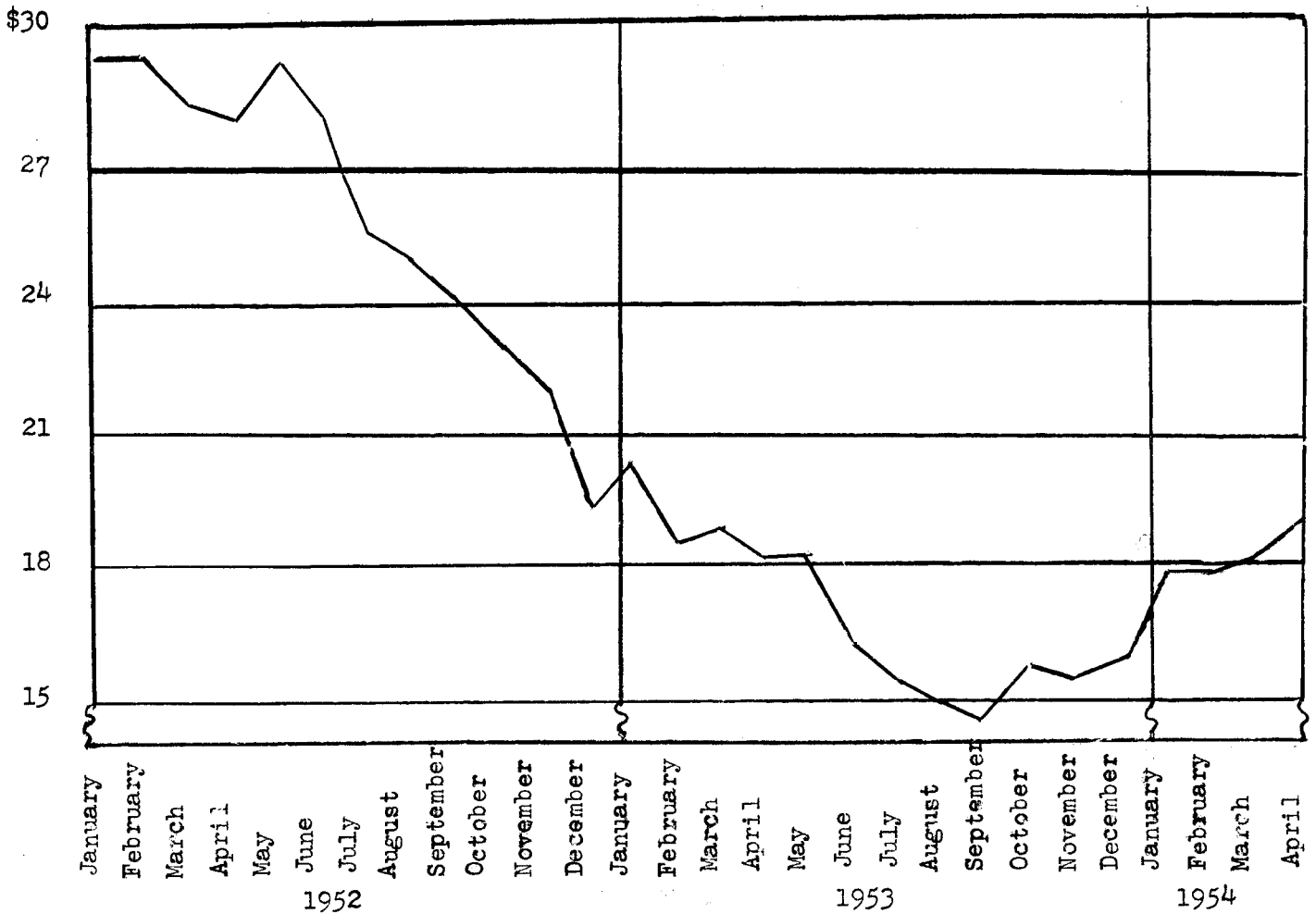


Figure 1, Average Monthly Prices per 100 lbs. of Stockers and Feeders, All Weights, So. St. Paul, Jan. 1952 - April 1954. (Compiled from Livestock Market News Statistics and Related Data USDA, PMA 1952-1954.)

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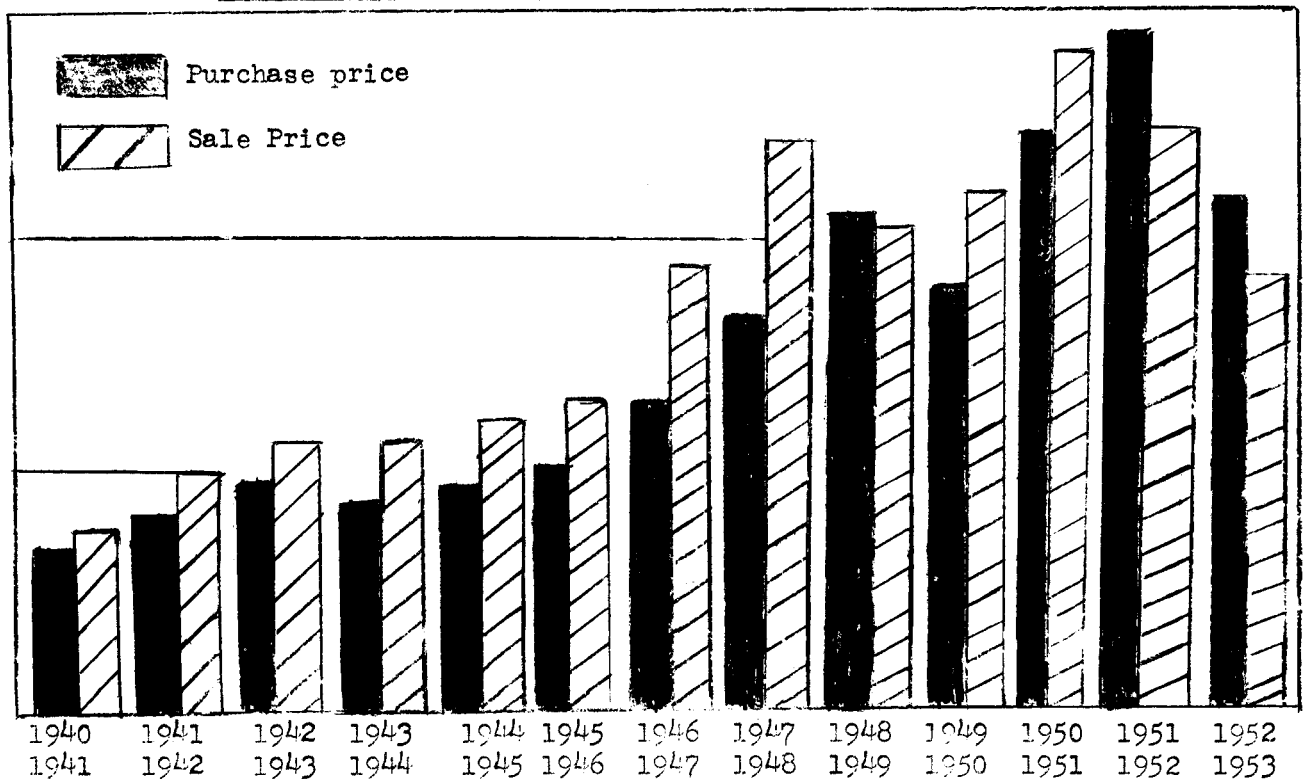


Figure 2. Average Purchase and Sale Price per 100 lbs. of Feeder Cattle on farms studied by Feeding Periods 1940-1953.

Table 2. Long Fed Calves, 1952 - 1953

	Ave. 18 lots.	Individual lot numbers			
		1	2	3	4
<u>No. and Wt. of Cattle Fed:</u>					
1. Number of head bought	67	43	112	105	40
2. Days on farm	328	262	340	343	345
3. Percent death loss	1.9	2.3	2.7	1.0	0
4. Ave. purchase wt. lbs.	408	388	397	410	406
5. Ave. sale wt. lbs.	952	895	948	796	999
6. Gain per head, lbs.	544	507	551	386	593
7. Gain per head per day, lbs.	1.7	1.9	1.6	1.1	1.7
8. Lb. beef produced per lot	35429	20930	58865	39785	23745
<u>Feed Used</u>					
Feed per 100 lb. gain					
9. Corn	524	417	357	694	473
10. Small grain	22	26	3	12	-
11. Commercial feed	45	26	5	73	35
12. Total concentrates	591	469	365	779	508
13. Legume hay	299	215	102	138	196
14. Other hay and stover	25	-	3	63	17
15. Total dry roughage	324	215	105	201	213
16. Silage	368	487	620	1181	84
17. Pasture days	11	8	23	18	10
18. TDN, lbs.*	720	571	512	968	547
19. Percent TDN that is protein	13.2	11.7	13.0	13.9	13.3
20. Total days on pasture	56	39	123	68	60
<u>Prices of Cattle</u>					
21. Price paid per 100 lbs.	\$27.28	\$23.10	\$32.20	\$27.79	\$30.00
22. Price received per 100 lbs.	23.69	24.27	26.44	29.86	24.91
23. Price spread, per 100 lbs.	-3.59	1.17	-5.76	2.07	-5.09
<u>Cost and Returns per lot</u>					
24. Total value produced	\$7593.26	\$5274.71	\$13003.37	\$12775.18	\$5088.87
25. Total feed cost	6751.57	3287.37	7863.79	10168.39	3653.94
26. Total return over feed cost	841.69	1987.34	5139.58	2606.79	1434.93
<u>Cost and Returns per 100 lbs. Gain</u>					
27. Value produced	20.94	25.20	22.09	32.11	21.43
28. Feed costs	19.74	15.70	13.36	25.56	15.39
29. RETURN OVER FEED COST	1.20	9.50	8.73	6.55	6.04
30. Return per \$100 feed cost	106	161	165	126	139
31. Est. costs other than feed	4.49	4.49	4.49	4.49	4.49
32. Est. net return	-3.29	5.01	4.24	2.06	1.55

* Not including nutrients in pasture

Table 2. Long Fed Calves, 1952 - 1953 (continued)

Individual lot numbers					
	5	6	7	8	9
1.	34	191	80	35	45
2.	340	396	325	276	359
3.	0	0	0	0	6.7
4.	291	388	390	511	362
5.	855	1078	1133	945	1037
6.	564	690	743	434	675
7.	1.7	1.7	2.3	1.6	1.9
8.	19170	131745	59385	15179	27270
9.	422	478	573	555	570
10.	34	5	16	24	8
11.	76	34	58	14	19
12.	532	517	647	593	597
13.	164	76	100	600	315
14.	-	47	50	-	-
15.	164	123	150	600	315
16.	543	531	283	-	491
17.	-	14	8	-	4
18.	600	588	677	786	789
19.	13.9	11.3	12.4	13.3	13.5
20.	-	96	60	-	25
21.	\$22.71	\$30.38	\$31.00	\$25.62	\$26.92
22.	22.33	24.65	26.47	24.88	24.13
23.	-.38	-5.73	-4.93	-.74	-2.79
24.	\$4244.52	\$28217.14	\$14303.11	\$3645.83	\$6129.27
25.	3211.32	21476.49	11269.91	2962.67	5243.38
26.	1033.20	6740.65	3033.20	683.16	885.89
27.	22.14	21.42	24.08	24.02	22.48
28.	16.75	16.30	18.97	19.52	19.23
29.	5.39	5.12	5.11	4.50	3.25
30.	132	131	127	123	117
31.	4.49	4.49	4.49	4.49	4.49
32.	.90	.63	.62	.01	-1.24

Table 2. Long Fed Calves, 1952 - 1953 (continued)

	Ave. 18 lots.	Individual Lot numbers			
		10	11	12	13
No. and Wt. of Cattle Fed:					
1. Number of head bought	67	15	20	197	33
2. Days on farm	328	278	305	299	351
3. Percent death loss	1.9	0	0	1.0	6.1
4. Ave. purchase wt. lbs.	408	490	347	500	379
5. Ave. sale wt. lbs.	952	1026	865	961	1045
6. Gain per head, lbs.	544	536	518	461	666
7. Gain per head per day, lbs.	1.7	1.9	1.7	1.5	1.9
8. Lb. beef produced per lot	35429	8045	10350	88962	19890
Feed Used					
Feed per 100 lbs. gain					
9. Corn	524	472	449	524	556
10. Small grain	22	10	44	26	43
11. Commercial feed	45	66	42	97	35
12. Total concentrates	591	548	535	647	634
13. Legume hay	299	162	335	83	221
14. Other hay and stover	25	-	52	41	131
15. Total dry roughage	324	162	387	124	352
16. Silage	368	597	-	112	251
17. Pasture days	11	-	11	11	18
18. TDN, lbs.*	720	687	627	598	729
19. Percent TDN that is protein	13.2	13.6	14.2	12.5	12.1
20. Total days on pasture.	56	-	55	49	108
Prices of Cattle					
21. Price paid per 100 lbs.	\$27.28	\$26.98	\$25.10	\$23.43	\$29.50
22. Price received per 100 lbs.	23.69	23.57	22.24	22.21	24.25
23. Price spread, per 100 lbs.	-3.59	-3.41	-2.86	-1.22	-5.25
Cost and Returns per lot					
24. Total value produced	\$7593.26	\$1645.08	\$2102.84	\$18553.87	\$4165.49
25. Total feed cost	6751.57	1413.50	1815.63	17627.13	4050.22
26. Total return over feed cost	841.69	231.58	287.21	926.74	115.27
Cost and Returns per 100 lbs. Gain					
27. Value produced	20.94	20.45	20.32	20.86	20.94
28. Feed costs	19.74	17.57	17.55	19.81	20.36
29. RETURN OVER FEED COST	1.20	2.88	2.77	1.05	.58
30. Return per \$100 feed cost	106	116	116	105	103
31. Est. costs other than feed	4.49	4.49	4.49	4.49	4.49
32. Est. net return	-3.29	-1.61	-1.72	-3.44	-3.91

* Not including nutrients in pasture

Table 2. Long Fed Calves, 1952 - 1953 (continued)

Individual lot numbers					
	14	15	16	17	18
1.	36	70	55	50	40
2.	305	305	283	325	473
3.	8.3	1.4	1.8	0	2.5
4.	380	357	464	413	473
5.	882	790	878	835	1162
6.	502	433	414	422	689
7.	1.6	1.4	1.5	1.3	1.5
8.	14545	29580	22731	21110	26430
9.	578	325	524	766	707
10.	37	-	-	-	113
11.	29	40	6	49	96
12.	644	365	530	815	916
13.	371	636	906	379	386
14.	-	-	-	-	45
15.	371	636	906	379	431
16.	179	957	317	-	-
17.	22	33	-	-	15
18.	737	784	951	856	958
19.	12.9	14.9	14.5	12.6	13.4
20.	89	139	-	-	97
21.	\$24.08	\$29.14	\$26.21	\$24.50	\$32.30
22.	23.03	20.30	19.84	19.25	23.75
23.	-1.05	-8.84	-6.37	-5.25	-8.55
24.	\$3206.61	\$3800.69	\$2884.07	\$2977.42	\$4660.58
25.	3139.50	6292.00	5043.57	5284.43	7725.01
26.	67.11	-2491.31	-2159.50	-2307.01	-3064.43
27.	22.05	12.85	12.69	14.10	17.63
28.	21.59	21.27	22.19	25.03	29.23
29.	.46	-8.42	-9.50	-10.93	-11.60
30.	102	60	57	56	60
31.	4.49	4.49	4.49	4.49	4.49
32.	-4.03	-12.91	-13.99	-15.42	-16.09

Table 3. Long Fed Yearlings, 1952 - 1953

	Ave. 10 lots	Individual lot numbers			
		19	20	21	22
<u>No. and Wt. of Cattle Fed:</u>					
1. Number of head bought	44	52	25	37	21
2. Days on farm	333	416	361	319	327
3. Percent death loss	0.7	0	4.0	0	0
4. Ave. purchase wt. lbs.	643	593	687	670	595
5. Ave. sale wt. lbs.	1132	1160	1231	1150	1217
6. Gain per head, lbs.	489	567	544	480	622
7. Gain per head per day, lbs.	1.5	1.4	1.5	1.5	1.9
8. Lb. beef prod. per lot	21100	29474	12370	17772	13070
<u>Feed Used</u>					
Feed per 100 lb. gain					
9. Corn	520	346	631	734	459
10. Small grain	11	-	72	-	5
11. Commercial feed	53	11	44	34	33
12. Total concentrates	584	357	747	768	497
13. Legume hay	197	158	226	560	107
14. Other hay and stover	42	11	-	-	15
15. Total dry roughage	239	169	226	560	122
16. Silage	922	1323	170	-	268
17. Pasture days	8	17	13	-	15
18. TDN, lbs.*	780	662	746	907	516
19. Percent TDN that is protein	12.7	13.2	12.4	13.2	12.0
20. Total days on pasture	42	98	65	-	95
<u>Prices of Cattle</u>					
21. Price paid per 100 lbs.	\$28.89	\$29.49	\$27.01	\$26.97	\$28.87
22. Price received per 100 lbs.	23.83	24.24	25.48	25.90	21.46
23. Price spread, per 100 lbs.	-5.06	-5.25	-1.53	-1.07	-7.41
<u>Cost and Returns per lot</u>					
24. Total value produced	\$3611.93	\$5525.36	\$2889.16	\$4339.11	\$1880.23
25. Total feed cost	4297.72	4481.81	2687.30	4296.52	2006.01
26. Total return over feed cost	-685.79	1043.55	201.86	42.59	-125.78
<u>Cost and Returns per 100 lbs. Gain</u>					
27. Value produced	17.14	18.75	23.36	24.42	14.39
28. Feed costs	20.80	15.20	21.72	24.18	15.35
29. RETURN OVER FEED COST	-3.66	3.55	1.64	.24	-.96
30. Return per \$100 feed cost	82	123	108	101	94
31. Est. costs other than feed	4.49	4.49	4.49	4.49	4.49
32. Est. net return	-8.15	-.94	-2.85	-4.25	-5.45

* Not including nutrients in pasture

Table 3. Long Fed Yearlings, 1952 - 1953 (continued)

Individual Lot numbers						
	23	24	25	26	27	28
1.	69	35	86	39	35	40
2.	330	306	437	300	269	263
3.	1.4	0	1.2	0	0	0
4.	568	713	580	685	688	650
5.	1050	1142	1106	1139	1154	973
6.	482	429	526	454	466	323
7.	1.5	1.4	1.2	1.5	1.7	1.2
8.	32210	15005	44144	17710	16330	12910
9.	559	202	604	411	570	688
10.	-	-	29	-	-	-
11.	27	160	22	99	37	62
12.	586	362	655	510	607	750
13.	256	33	82	104	234	212
14.	57	27	113	-	78	121
15.	313	60	195	104	312	333
16.	453	3066	1035	734	1164	1007
17.	28	-	-	7	-	-
18.	750	819	845	584	938	1029
19.	12.7	13.7	11.3	13.0	12.9	13.0
20.	129	-	-	31	-	-
21.	\$28.49	\$28.43	\$37.49	\$28.26	\$28.22	\$25.70
22.	23.98	25.00	27.10	21.95	21.98	21.19
23.	-4.51	-3.43	-10.39	-6.31	-6.24	-4.51
24.	\$5959.28	\$2893.75	\$6779.10	\$2201.31	\$2088.99	\$1563.00
25.	7051.53	3410.45	8795.37	3254.65	3436.40	3557.19
26.	-1092.25	-516.70	-2016.27	-1053.34	-1347.41	-1994.19
27.	18.50	19.29	15.36	12.43	12.79	12.11
28.	21.89	22.73	19.93	18.37	21.04	27.55
29.	-3.39	-3.44	-4.57	-5.94	-8.25	-15.44
30.	85	85	77	68	61	44
31.	4.49	4.49	4.49	4.49	4.49	4.49
32.	-7.88	-7.93	-9.06	-10.43	-12.74	-19.93

Table 4. Short Fed Yearlings and Two-Year-Olds, 1952-53

	Ave. 15 lots.	Individual lot numbers				
		29	30	31	32	33
<u>No. and Wt. of Cattle Fed:</u>						
1. Number of head bought	43	55	10	17	20	27
2. Days on farm	167	90	197	157	153	176
3. Percent death loss	1.0	0	0	0	0	0
4. Ave. purchase wt. lbs.	751	932	603	828	877	570
5. Ave. sale wt. lbs.	1065	1128	923	1170	1191	840
6. Gain per head, lbs.	314	196	320	342	314	270
7. Gain per head per day, lbs.	1.9	2.2	1.6	2.2	2.1	1.5
8. Lb. beef produced per lot	12760	10783	3200	5825	6275	7288
<u>Feed Used</u>						
Feed per 100 lb. gain						
9. Corn	703	156	551	505	633	269
10. Small grain	10	15	-	-	-	38
11. Commercial feed	61	111	15	26	30	46
12. Total concentrates	774	282	566	531	663	353
13. Legume hay	201	74	172	824	351	151
14. Other hay and stover	32	37	-	-	-	206
15. Total dry roughage	233	111	172	824	351	357
16. Silage	535	-	-	1923	-	755
17. Pasture days	9	10	-	-	-	7
18. TDN, lbs.*	842	276	543	1176	719	582
19. Percent TDN that is protein	12.1	16.4	11.0	13.0	12.6	11.6
20. Total days on pasture	28	20	-	-	-	19
<u>Prices of Cattle</u>						
21. Price paid per 100 lbs.	\$23.37	\$18.17	\$19.50	\$16.37	\$23.25	\$18.48
22. Price received per 100 lbs.	20.10	20.28	20.13	18.98	21.82	15.80
23. Price spread, per 100 lbs.	-3.27	2.11	.63	2.61	-1.43	-2.68
<u>Cost and Returns per lot</u>						
24. Total value produced	\$1452.89	\$3266.10	\$681.86	\$1472.80	\$1118.70	\$ 738.64
25. Total feed cost	3202.84	1073.88	479.69	1547.81	1340.03	1054.84
26. Total return over feed cost	-1749.95	2192.22	202.17	-75.01	-221.33	-316.20
<u>Cost and Returns per 100 lbs. Gain</u>						
27. Value produced	12.90	30.29	21.31	25.28	17.83	10.14
28. Feed costs	24.19	9.96	14.99	26.57	21.35	14.48
29. RETURN OVER FEED COST	-11.29	20.33	6.32	-1.29	-3.52	-4.34
30. Return per \$100 feed cost	53	304	142	95	84	70
31. Est. costs other than feed	4.49	4.49	4.49	4.49	4.49	4.49
32. Est. net return	-15.78	15.84	1.83	-5.78	-8.01	-8.83

* Not including nutrients in pasture

Table 4. Short Fed Yearlings and Two-year-Olds, 1952 - 53. (continued)

	Individual lot numbers									
	34	35	36	37	38	39	40	41	42	43
1.	33	53	90	30	41	53	77	47	40	45
2.	223	192	121	232	101	135	220	141	132	237
3.	3.3	1.9	0	0	0	0	2.6	0	0	6.7
4.	676	697	635	717	1068	901	563	687	820	685
5.	1066	1090	938	1102	1326	1094	919	1046	1103	1045
6.	390	393	303	385	258	193	356	359	283	360
7.	1.7	2.0	2.5	1.7	2.6	1.4	1.6	2.5	2.1	1.5
8.	11805	19715	27296	11555	10600	10205	25600	16859	11340	13060
9.	522	597	706	877	662	856	704	1513	1333	661
10.	-	19	23	-	-	47	-	4	3	-
11.	33	65	88	70	192	15	79	37	66	37
12.	555	681	817	947	854	918	783	1554	1402	698
13.	136	183	59	277	-	176	180	30	79	318
14.	-	-	-	-	-	-	74	18	-	157
15.	136	183	59	277	-	176	254	48	79	475
16.	440	538	476	-	1358	1176	586	-	141	628
17.	18	-	-	12	19	-	21	-	21	31
18.	590	733	829	907	914	1028	859	1286	1200	988
19.	10.9	12.1	14.0	12.6	12.5	10.0	11.6	9.7	10.0	13.1
20.	.65	-	-	45	48	-	71	-	60	89
21.	\$26.16	\$25.33	\$24.39	\$23.57	\$24.00	\$21.84	\$26.89	\$24.42	\$26.15	\$32.10
22.	20.14	20.40	20.77	20.79	22.24	19.48	19.63	20.12	20.75	20.21
23.	-6.02	-4.93	-3.62	-2.78	-1.76	-2.36	-7.26	-4.30	-5.40	-11.89
24.	1036.85	2197.99	3597.09	1805.65	1583.09	862.24	1879.18	1999.50	583.57	-1029.94
25.	2090.60	4108.71	6275.12	3171.54	3375.74	2777.77	6739.48	6420.64	4282.31	3304.38
26.	-1053.75	-1910.72	-2678.03	-1365.89	-1792.65	-1915.53	-4860.30	-4421.14	-3698.74	-4334.32
27.	8.78	11.15	13.18	15.63	14.93	8.45	7.34	11.86	5.15	-7.89
28.	17.71	20.84	22.99	27.45	31.85	27.22	26.33	38.08	37.76	25.30
29.	-8.93	-9.69	-9.81	-11.82	-16.92	-18.77	-18.99	-26.22	-32.61	-33.19
30.	50	54	57	57	47	31	28	31	14	-31
31.	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49
32.	-13.42	-14.18	-14.30	-16.31	-21.41	-23.26	-23.48	-30.71	-37.10	-37.68

Table 5. Comparisons Between Feeding Systems, 1950 - 1953

	Long Fed Calves, 1950-1953		
	Return above feed cost		
	Ave. 43 lots.	Ave. 14 high	Ave. 14 low
<u>No. and Wt. of Cattle Fed:</u>			
1. Number of head bought	58	63	35
2. Days on farm	339	348	357
3. Percent Death loss	2.2	2.7	2.7
4. Ave. purchase wt. lbs.	404	402	406
5. Ave. sale wt. lbs.	948	954	956
6. Gain per head, lbs.	544	552	550
7. Daily gain per head, lbs.	1.6	1.6	1.5
8. Lb. beef produced per lot	29989	34344	17707
<u>Feed Used</u>			
Feed per 100 lb. gain			
9. Corn	542	477	638
10. Small grain	31	30	30
11. Commercial feed	41	36	36
12. Total concentrates	614	543	704
13. Legume hay	254	175	369
14. Other hay and stover	51	47	37
15. Total dry roughage	305	222	406
16. Silage	432	473	367
17. Pasture days	15	15	19
18. TDN, lbs.*	740	650	853
19. Percent TDN that is protein	12.6	12.5	12.6
20. Total days on pasture	77	72	101
<u>Prices</u>			
21. Price paid per 100 lbs.	\$32.29	\$30.91	\$32.97
22. Price received per 100 lbs.	29.69	30.91	27.98
23. Price spread, per 100 lbs.	-2.60	0	-4.99
<u>Cost and Returns per 100 lbs. Gain</u>			
24. Value produced	\$27.89	\$31.10	\$24.55
25. Feed cost	20.48	17.92	23.81
26. Cap. Return Above Feed Cost	7.41	13.18	.74
27. Return per \$100 feed cost	136	174	103
28. Est. cost other than feed	4.93	4.93	4.93
29. Est. net return	2.48	8.25	-4.19

* Not including nutrient in pasture

Table 5. Comparison Between Feeding Systems, 1950-1953. (continued)

<u>Long Fed Yearlings, 1950-1953</u>			<u>Short Fed Yearlings and 2-year-Old, 1950-1953</u>			
<u>Return above feed cost</u>			<u>Return above feed cost</u>			
Ave. 25 lots	Ave. 8 high	Ave. 8 low	Ave. 37 lots	Ave. 12 high	Ave. 12 low	
1.	58	58	45	42	39	43
2.	358	392	298	166	163	168
3.	0.9	2.0	1.5	1.1	0.2	1.3
4.	630	618	669	760	743	801
5.	1142	1168	1116	1052	1028	1074
6.	512	550	447	292	285	273
7.	1.5	1.5	1.5	1.8	1.8	1.7
8.	30434	32558	20337	11597	10545	11191
9.	564	457	742	765	587	932
10.	21	15	10	33	43	5
11.	46	46	51	64	63	51
12.	631	518	803	862	693	988
13.	204	209	244	316	271	521
14.	80	43	70	54	16	78
15.	284	252	314	370	287	599
16.	663	564	545	466	453	496
17.	15	21	10	5	3	9
18.	784	666	920	963	765	1205
19.	12.1	12.7	12.0	12.3	12.6	12.3
20.	82	117	51	14	8	25
21.	\$30.87	\$30.38	\$29.85	\$28.21	\$27.35	\$30.38
22.	29.67	30.62	28.09	27.86	28.41	27.93
23.	-1.20	.24	-1.76	-.35	1.06	-2.45
24.	\$27.99	\$30.21	\$25.54	\$27.62	\$33.44	\$20.97
25.	21.45	18.21	25.70	26.55	22.07	31.01
26.	6.54	12.00	-.16	1.07	11.37	-10.04
27.	131	166	99	104	152	68
28.	4.93	4.93	4.93	4.93	4.93	4.93
29.	1.61	7.07	-5.09	-3.86	6.44	-14.97

FEED USED

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.

COSTS AND RETURNS

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. Variation in the spread between purchase and sale price is another important factor. In general feed costs were less for the younger cattle, and the price spread, though negative in nearly all cases for the 1952-53 feeding season, was less unfavorable than in case of the heavier cattle. At no time since 1940 has the price spread been as unfavorable as during the 1951-52 and 1952-53 feeding seasons, (figure 2).

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 wished 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.^{2/} This average charge has been used in tables 2, 3, 4, and 5 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.

^{2/} Agricultural Economics Report No. 217. Institute of Agriculture, University of Minnesota, September, 1954.

