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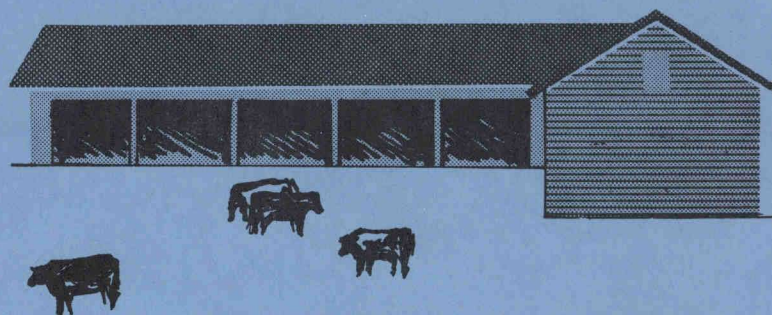
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Cost and Return From Feeding Cattle

1972 -- 1974

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INTRODUCTION

The return over feed costs from feeder cattle fluctuates from year to year and from farm to farm. The variation in returns is accounted for primarily by two factors: (1) total value produced per hundredweight gain in weight, and (2) the feed cost per hundredweight gain in weight. This is emphasized by this study of costs and returns for 15 lots of feeder cattle on Southwestern Minnesota farms in the 1972-1973 feeding season and 31 lots in the 1973-1974 feeding season. This information was obtained from records kept by members of the Southwestern Minnesota Farm Management Association under the supervision of Erlin Weness. The purpose of this report is to make available data regarding the average results from feeding operations, to provide examples of individual lot records, and to show the relative importance of feeding efficiency and prices paid and received for cattle.

The data presented cover averages of individual lots of cattle from purchase as feeders to sale as fat cattle. Simple arithmetic averages are used throughout the report. In computing group averages, each lot was given equal weight regardless of the number of animals.

The average yearly prices at which the principal feeds used in cattle feeding were charged on the farms studied are shown in table 1 for 1972, 1973 and 1974. The farm raised feeds are valued at average prices on the farm. Purchased feeds are listed at the prices 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. Corn is priced on a dry corn basis. High moisture corn is adjusted to a dry corn basis in the lot summary information.

* The authors are indebted to Janet B. Otis for her assistance in the preparation of this report.

Table 1. Average annual feed prices

Feed	1972	1973	1974
Alfalfa hay, per ton	\$21.00	\$40.00	\$40.00
Oats or hay silage, per ton	6.50	12.00	12.00
Corn silage, per ton	7.25	12.00	14.00
Corn grain, per bushel	1.08	1.70*	2.75
Oats, per bushel	.64	.90*	1.40
Soybean meal, per 100 pounds	6.35	13.60	9.50

* During the last six months of 1973, \$2.10 per bushel was used for corn and \$1.00 per bushel for oats.

FEEDING DATA

Tables 2 and 3 present average data for each of the two feeding seasons and report performance of individual lots in 1972-1973 and 1973-1974. The numbers and weights of cattle fed, total pounds produced, and feed costs and returns are given for the average lot for each of the two feeding seasons. Per head and per hundred pounds gain averages are calculated for feed consumption, cattle prices, and feed costs and returns.

Net returns or profits in cattle feeding are the results of sales income minus costs. The major items of cost are purchase cost of cattle and the feed they consume. Profits result when the total of these, plus other costs, is less than the amount received for the cattle.

"Value produced" (line 23 and 26) is calculated by subtracting total purchase cost from the total sales and dividing by the number of head sold and the hundredweights of gain. Thus, death loss affects quantity and value of feed as well as the value produced figures. When some animals die, this weight loss comes out of total gain, thereby increasing feed cost per hundredweight of net gain. (An alternate way of showing this loss would be to enter a separate item on death loss.)

Return per \$100 of feed cost (line 29) is obtained by dividing the total value produced by the total feed cost.

Returns were relatively high during the 1972-1973 feeding season, when return over feed cost averaged nearly \$14.00 per hundredweight gain in weight and \$158 return for \$100 of feed. The following feeding season, 1973-1974, was a complete reversal, as far as returns to the feeder are concerned, with a -\$21.48 return over feed per 100 gain in weight and \$56 return for each \$100 of feed consumed. This means feeders lacked \$46 to cover feed costs without considering non-feed costs. This amounts to a loss of \$95 per head, as far as feed cost is concerned.

Table 2. Costs and Returns from Feeding Cattle, 1972-1973

Item	Average of 15 lots	Average by return		Average by purchased weight	
		over feed cost		7 over	8 under
		8 high	7 low	500 lbs	500 lbs
<u>Number and weight of cattle fed</u>					
1. Date of purchase	-	-	-	-	-
2. Number of head bought	238	328	134	239	237
3. Sex	-	-	-	-	-
4. Days on farm	274	246	306	262	284
5. Percent death loss	2.0	2.6	1.4	1.3	2.7
6. Average sales weight, lbs.	1027	999	1058	1086	975
7. Average purchase weight, lbs.	509	526	489	566	459
8. Gain per head, lbs.	518	473	569	520	516
9. Gain per head per day, lbs.	1.9	1.9	1.9	2.0	1.8
10. Pounds of beef produced	119061	156757	75964	119612	118564
<u>Feed used</u>	<u>Head</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
11. Corn (bu/hd) (lbs/cwt gain)*	58	634	581	694	666
12. Small grain (bu/hd) (lbs/cwt)	1	6	1	12	11
13. Commercial feed, lbs.	325	64	64	64	65
14. Total concentrates	3625	704	646	770	742
15. Legume hay, lbs.	758	139	63	225	99
16. Other hay, lbs.	39	8	14	2	8
17. Total hay, lbs.	797	147	77	227	107
18. Corn silage, lbs.	3514	672	687	655	507
19. Grass or oat silage, lbs.	38	7	13	-	-
20. Total silage, lbs.	3552	679	700	655	507
<u>Price of cattle</u>	<u>Head</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
21. Price paid	\$233.98	\$46.08	\$45.73	\$46.46	\$45.72
22. Price received	\$452.97	\$44.85	\$48.09	\$41.15	\$44.84
<u>Cost and return per lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>
23. Total value produced	\$53958	\$78554	\$25842	\$54003	\$53911
24. Total feed cost	32721	39466	25010	34575	31095
25. Total return over feed	\$21237	\$39088	\$ 832	\$19428	\$22816
<u>Cost and return per head & per cwt.</u>	<u>Head</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
26. Value produced	\$214.76	\$42.78	\$48.60	\$36.12	\$41.90
27. Feed cost	149.17	28.81	24.82	33.36	28.09
28. Return over feed cost	\$ 65.59	\$13.97	\$23.78	\$ 2.76	\$13.81
29. Return per \$100 of feed		\$158	\$198	\$112	\$162

* All cwt. calculations are per hundred pounds net gain in weight.

Table 2. Costs and Returns from Feeding Cattle, 1972-1973

Item	Individual lot numbers			
	1	2	3	4
<u>Number and weight of cattle fed</u>				
1. Date of purchase	Nov 72	Sep 72	Oct 72	Dec 72
2. Number of head bought	699	168	88	468
3. Sex	N.A.*	Steers	Heifers	Steers
4. Days on farm	247	185	295	275
5. Percent death loss	1.3	1.2	4.5	2.0
6. Average sales weight, lbs.	989	1183	939	989
7. Average purchase weight, lbs.	509	759	471	446
8. Gain per head, lbs.	480	424	468	543
9. Gain per head per day, lbs.	1.9	2.3	1.6	2.1
10. Pounds of beef produced	326390	68930	37375	244000
<u>Feed used</u>				
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
11. Corn, lbs.	587	618	677	584
12. Small grain, lbs.	6	-	-	-
13. Commercial feed, lbs.	65	24	71	58
14. Total concentrates, lbs.	658	642	748	642
15. Legume hay, lbs.	17	52	273	72
16. Other hay, lbs.	-	16	-	7
17. Total hay, lbs.	17	68	273	79
18. Corn silage, lbs.	677	674	803	451
19. Grass or oat silage, lbs.	-	-	-	107
20. Total silage, lbs.	677	674	803	558
<u>Price of cattle</u>				
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
21. Price paid	\$41.40	\$44.48	\$42.85	\$51.73
22. Price received	\$49.97	\$53.56	\$49.54	\$49.66
<u>Cost and return per lot</u>				
	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>
23. Total value produced	\$193652	\$32224	\$21287	\$116841
24. Total feed cost	87403	12780	11887	59586
25. Total return over feed	\$106249	\$19444	\$ 9400	\$ 57255
<u>Cost and return per cwt.</u>				
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
26. Value produced	\$59.33	\$46.75	\$57.00	\$47.88
27. Feed cost	26.78	18.54	31.83	24.42
28. Return over feed cost	\$32.55	\$28.21	\$25.17	\$23.46
29. Return per \$100 of feed cost	\$222	\$252	\$179	\$196

* N.A. - Not available.

Table 2. Costs and Returns from Feeding Cattle, 1972-1973 (continued)

Individual lot numbers							
	5	6	7	8	9	10	11
1.	Oct 72	Sep 72	Dec 72	Nov 72	Nov 72	Dec 72	Nov 72
2.	558	103	308	235	127	168	98
3.	Mixed	Heifers	Heifers	Heifers	Heifers	Steers	Heifers
4.	287	190	197	290	273	285	332
5.	3.2	1.0	5.5	2.1	0.0	1.8	1.0
6.	1034	967	889	1005	1003	1189	969
7.	428	613	499	485	514	539	424
8.	606	354	390	520	489	650	545
9.	2.1	1.9	2.0	1.8	1.8	2.3	1.6
10.	319755	35505	105000	117100	62083	105605	52445
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
11.	549	527	524	581	802	562	534
12.	-	-	-	-	7	-	12
13.	40	72	94	89	91	57	70
14.	589	599	618	670	900	619	616
15.	29	54	1	11	90	11	545
16.	29	25	32	-	-	16	-
17.	58	79	33	11	90	27	545
18.	1167	-	696	1025	484	501	-
19.	-	-	-	-	-	-	-
20.	1167	-	696	1025	484	501	-
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
21.	\$50.45	\$42.00	\$49.75	\$43.18	\$48.11	\$53.25	\$45.49
22.	\$49.04	\$42.81	\$46.14	\$43.97	\$48.02	\$44.00	\$39.31
	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>
23.	\$153418	\$15716	\$42891	\$52400	\$29751	\$38090	\$18048
24.	81132	7943	23146	31851	21578	24305	15938
25.	\$ 72286	\$ 7773	\$19745	\$20549	\$ 8173	\$13785	\$ 2110
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
26.	\$47.97	\$44.26	\$40.85	\$44.75	\$47.93	\$36.06	\$34.41
27.	25.37	22.37	22.04	27.20	34.76	23.01	30.39
28.	\$22.60	\$21.89	\$18.81	\$17.55	\$13.17	\$13.05	\$ 4.02
29.	\$189	\$198	\$185	\$165	\$138	\$157	\$113

Table 2. Costs and Returns from Feeding Cattle, 1972-1973 (continued)

Item	Individual lot numbers			
	12	13	14	15
<u>Number and weight of cattle fed</u>				
1. Date of purchase	Dec 72	Feb 72	Dec 72	Dec 72
2. Number of head bought	109	108	31	300
3. Sex	Heifers	Steers	Mixed	Heifers
4. Days on farm	308	324	289	331
5. Percent death loss	0.0	1.8	3.2	2.0
6. Average sales weight, lbs.	996	1191	983	1077
7. Average purchase weight, lbs.	470	510	452	516
8. Gain per head, lbs.	526	681	531	561
9. Gain per head per day, lbs.	1.7	2.1	1.8	1.7
10. Pounds of beef produced	57340	97150	15495	161660
<u>Feed used</u>				
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
11. Corn, lbs.	585	772	806	795
12. Small grain, lbs.	-	-	-	64
13. Commercial feed, lbs.	43	60	47	84
14. Total concentrates, lbs.	628	832	853	943
15. Legume hay, lbs.	174	355	284	115
16. Other hay, lbs.	-	-	-	-
17. Total hay, lbs.	174	355	284	115
18. Corn silage, lbs.	1046	791	1342	424
19. Grass or oat silage, lbs.	-	-	-	-
20. Total silage, lbs.	1046	791	1342	424
<u>Price of cattle</u>				
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
21. Price paid	\$48.53	\$41.93	\$39.04	\$48.92
22. Price received	\$41.46	\$37.60	\$39.73	\$37.91
<u>Cost and return per lot</u>				
	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>
23. Total value produced	\$20148	\$24367	\$ 6252	\$ 44240
24. Total feed cost	18789	24635	6427	63396
25. Total return over feed	\$ 1359	\$ -268	\$ -175	\$-19156
<u>Cost and return per cwt.</u>				
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
26. Value produced	\$35.14	\$31.58	\$40.35	\$ 27.37
27. Feed cost	32.77	31.93	41.48	39.22
28. Return over feed cost	\$ 2.37	\$ -.35	\$-1.13	\$-11.85
29. Return per \$100 of feed cost	\$107	\$ 99	\$ 97	\$ 70

Table 3. Costs and Returns from Feeding Cattle, 1973-1974

Item	Average of 31 lots	Average by return over feed cost	
		15 high	16 low
<u>Number and weight of cattle fed</u>			
1. Date of purchase	-	-	-
2. Number of head bought	170	207	135
3. Sex	-	-	-
4. Days on farm	262	284	241
5. Percent death loss	2.7	2.3	3.0
6. Average sales weight, lbs.	1070	1069	1070
7. Average purchase weight, lbs.	561	497	621
8. Gain per head, lbs.	509	572	449
9. Gain per head per day, lbs.	2.0	2.0	1.9
10. Pounds of beef produced	82074	107043	58661
<u>Feed used</u>			
	<u>Head</u>	<u>Cwt.</u>	<u>Cwt.</u>
11. Corn (bu/head) (lbs/cwt gain)*	56	662	565
12. Small grain (bu/head)(lbs/cwt)	1	7	8
13. Commercial feed, lbs.	268	56	56
14. Total concentrates, lbs.	3468	725	629
15. Legume hay, lbs.	730	151	124
16. Other hay, lbs.	61	14	5
17. Total hay, lbs.	791	165	129
18. Corn silage, lbs.	3238	694	773
19. Grass or oat silage, lbs.	48	10	-
20. Total silage, lbs.	3286	704	773
<u>Price of cattle</u>			
	<u>Head</u>	<u>Cwt.</u>	<u>Cwt.</u>
21. Price paid	\$299.88	\$53.48	\$53.77
22. Price received	\$423.65	\$39.60	\$41.59
<u>Cost and return per lot</u>			
	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>
23. Total value produced	\$ 19873	\$31860	\$ 8632
24. Total feed cost	35380	41259	29864
25. Total return over feed	\$-15507	\$-9399	\$-21232
<u>Cost and return per head and per cwt.</u>			
	<u>Head</u>	<u>Cwt.</u>	<u>Cwt.</u>
26. Value produced	\$115.52	\$22.85	\$30.17
27. Feed cost	210.40	44.33	37.98
28. Return over feed cost	\$-94.88	\$-21.48	\$-7.81
29. Return per \$100 of feed cost		\$ 56	\$ 82

* All cwt. calculations are per hundred pounds net gain in weight.

Table 3. Costs and returns from feeding cattle, 1973-1974 (continued)

Item	Average by sex		Average by purchased weight	
	Heifers 10 lots	Steers 9 lots	19 over 500 lbs	12 under 500 lbs
<u>Number and weight of cattle fed</u>				
1. Date of purchase	-	-	-	-
2. Number of head bought	142	132	196	128
3. Sex	heifers	steers	-	-
4. Days on farm	249	263	246	288
5. Percent death loss	4.2	0.5	1.8	4.1
6. Average sales weight, lbs.	982	1182	1131	973
7. Average purchase weight, lbs.	543	625	631	449
8. Gain per head, lbs.	439	557	500	524
9. Gain per head per day, lbs.	1.8	2.1	2.0	1.8
10. Pounds of beef produced	57775	71075	95029	61541
<u>Feed used</u>				
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
11. Corn (bu/head) (lbs/cwt gain)*	683	660	691	617
12. Small grain (bu/head) (lbs/cwt)	10	1	2	15
13. Commercial feed, lbs.	58	40	50	66
14. Total concentrates, lbs.	751	701	743	698
15. Legume hay, lbs.	74	164	157	139
16. Other hay, lbs.	39	4	21	4
17. Total hay, lbs.	113	168	178	143
18. Corn silage, lbs.	882	441	624	805
19. Grass or oat silage, lbs.	-	35	16	-
20. Total silage, lbs.	882	476	640	805
<u>Price of cattle</u>				
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
21. Price paid	\$52.80	\$55.71	\$52.55	\$54.93
22. Price received	\$39.76	\$39.11	\$38.89	\$40.72
<u>Cost and return per lot</u>				
	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>
23. Total value produced	\$ 12875	\$ 11768	\$ 22169	\$ 16233
24. Total feed cost	29906	27653	41335	25943
25. Total return over feed	\$-17031	\$-15885	\$-19166	\$ -9710
<u>Cost and return per cwt.</u>				
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
26. Value produced	\$ 24.49	\$ 18.55	\$ 20.39	\$ 26.74
27. Feed cost	50.79	38.99	45.20	42.94
28. Return over feed cost	\$-27.30	\$-20.44	\$-24.81	\$-16.20
29. Return per \$100 of feed cost	\$ 50	\$ 56	\$ 52	\$ 62

* All cwt. calculations are per hundred pounds net gain in weight.

** More of the lots of heifers were purchased late in 1973 when prices of feed were high than was true for steers.

Table 3. Costs and Returns from Feeding Cattle, 1973-1974 (continued)

Individual lot numbers							
	1	2	3	4	5	6	7
1.	Feb 73	Jan 73	Jan 73	Apr 73	Nov 73	Oct 73	Oct 73
2.	107	110	45	108	730	65	77
3.	Steers	Steers	Mixed	Steers	N.A.	Heifers	N.A.
4.	323	246	316	262	250	295	333
5.	0.0	0.9	2.2	0.0	6.2	0.0	1.3
6.	1157	1238	1056	1237	998	958	1270
7.	529	566	426	636	516	479	620
8.	628	672	630	601	482	479	650
9.	1.9	2.7	2.0	2.3	1.9	1.6	2.0
10.	67171	72641	27334	64860	307520	31120	48750
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
11.	392	529	451	669	568	443	454
12.	2	-	-	-	-	4	-
13.	49	47	48	51	51	50	32
14.	443	576	499	720	619	497	486
15.	228	118	269	74	6	352	193
16.	-	-	-	14	-	-	-
17.	228	118	269	88	6	352	193
18.	402	317	1574	-	959	964	603
19.	-	-	-	-	-	-	-
20.	402	317	1574	-	959	964	603
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
21.	\$53.66	\$52.11	\$45.75	\$55.62	\$49.98	\$56.65	\$56.27
22.	\$40.28	\$40.79	\$40.07	\$42.51	\$43.84	\$44.44	\$39.39
	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>
23.	\$19485	\$22583	\$ 9872	\$18560	\$111670	\$10029	\$11137
24.	15750	19335	9019	19713	121865	12145	15202
25.	\$ 3735	\$ 3248	\$ 853	\$-1153	\$-10195	\$-2116	\$-4065
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
26.	\$29.01	\$31.09	\$36.11	\$28.58	\$36.32	\$32.22	\$22.84
27.	23.45	26.62	32.99	30.36	39.63	39.02	31.18
28.	\$ 5.56	\$ 4.47	\$ 3.12	\$-1.78	\$-3.31	\$-6.80	\$-8.34
29.	\$124	\$117	\$109	\$ 94	\$ 92	\$ 83	\$ 73

Table 3. Costs and Returns from Feeding Cattle, 1973-1974 (continued)

Item	Individual lot numbers			
	8	9	10	11
<u>Number and weight of cattle fed</u>				
1. Date of purchase	Nov 73	Nov 73	Dec 73	Nov 73
2. Number of head bought	36	210	733	156
3. Sex	Mixed	N.A.	Mixed	Heifers
4. Days on farm	321	301	254	275
5. Percent death loss	0.0	1.9	1.9	4.5
6. Average sales weight, lbs.	1065	1101	1116	942
7. Average purchase weight, lbs.	400	421	508	439
8. Gain per head, lbs.	665	680	608	503
9. Gain per head per day, lbs.	2.1	2.3	2.4	1.8
10. Pounds of beef produced	23950	138495	430195	71800
<u>Feed used</u>				
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
11. Corn, lbs.	654	584	564	653
12. Small grain, lbs.	73	3	-	-
13. Commercial feeds, lbs.	114	32	41	75
14. Total concentrates, lbs.	841	619	605	728
15. Legume hay, lbs.	157	194	25	117
16. Other hay, lbs.	-	-	13	-
17. Total hay, lbs.	157	194	38	117
18. Corn silage, lbs.	-	258	1267	526
19. Grass or oat silage, lbs.	-	-	-	-
20. Total silage, lbs.	-	258	1267	526
<u>Price of cattle</u>				
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
21. Price paid	\$50.00	\$56.77	\$50.06	\$50.37
22. Price received	\$42.08	\$41.37	\$38.43	\$40.84
<u>Cost and return per lot</u>				
	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>
23. Total value produced	\$ 8938	\$ 36832	\$122041	\$22802
24. Total feed cost	10975	51217	172978	31575
25. Total return over feed	\$-2037	\$-14385	\$-50937	\$-8773
<u>Cost and return per cwt.</u>				
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
26. Value produced	\$38.94	\$ 26.59	\$ 28.37	\$ 31.75
27. Feed cost	47.82	36.98	40.21	43.97
28. Return over feed cost	\$-8.88	\$-10.39	\$-11.84	\$-12.22
29. Return per \$100 of feed cost	\$ 81	\$ 72	\$ 71	\$ 72

Table 3. Costs and Returns from Feeding Cattle, 1973-1974 (continued)

Individual lot numbers						
	12	13	14	15	16	17
1.	Nov 73	Nov 73	Jan 74	Nov 73	Feb 74	Nov 73
2.	168	238	85	237	83	136
3.	Heifers	Heifers	Steers	Mixed	Steers	Mixed
4.	255	275	297	262	277	291
5.	9.5	2.1	0.0	4.2	0.0	0.0
6.	876	920	1153	954	1080	1000
7.	462	473	530	450	546	439
8.	414	447	623	504	534	561
9.	1.6	1.6	2.1	1.9	1.9	1.9
10.	55515	106330	52950	106930	44340	76338
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
11.	817	499	613	592	631	711
12.	23	-	3	10	-	-
13.	<u>100</u>	<u>49</u>	<u>36</u>	<u>68</u>	<u>19</u>	<u>87</u>
14.	940	548	652	670	650	798
15.	14	-	113	-	307	37
16.	-	46	-	-	-	-
17.	<u>14</u>	<u>46</u>	<u>113</u>	<u>-</u>	<u>307</u>	<u>37</u>
18.	1441	753	510	2014	460	157
19.	-	-	-	-	-	-
20.	<u>1441</u>	<u>753</u>	<u>510</u>	<u>2014</u>	<u>460</u>	<u>157</u>
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
21.	\$49.99	\$63.80	\$56.47	\$59.02	\$49.55	\$64.32
22.	\$47.21	\$40.66	\$38.01	\$43.96	\$36.28	\$40.17
	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>
23.	\$24046	\$ 17168	\$11800	\$ 30942	\$10068	\$ 16253
24.	<u>30905</u>	<u>355987</u>	<u>21419</u>	<u>50802</u>	<u>18530</u>	<u>32563</u>
25.	\$-6859	\$-18819	\$-9619	\$-19860	\$-8462	\$-16310
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
26.	\$ 43.31	\$ 16.14	\$ 22.28	\$ 28.94	\$ 22.70	\$ 21.29
27.	<u>55.67</u>	<u>33.84</u>	<u>40.45</u>	<u>47.51</u>	<u>41.78</u>	<u>42.66</u>
28.	\$-12.36	\$-17.70	\$-18.17	\$-18.57	\$-19.08	\$-21.37
29.	\$ 78	\$ 48	\$ 55	\$ 61	\$ 54	\$ 50

Table 3. Costs and Returns from Feeding Cattle, 1973-1974 (continued)

Item	Individual lot numbers			
	18	19	20	21
<u>Number and weight of cattle fed</u>				
1. Date of purchase	Variable	Variable	Sep 73	Sep 73
2. Number of head bought	115	202	126	180
3. Sex	Mixed	Mixed	Heifers	Steers
4. Days on farm	301	188	206	240
5. Percent death loss	6.1	2.0	2.4	0.0
6. Average sales weight, lbs.	915	1163	1056	1314
7. Average purchase weight, lbs.	497	777	699	746
8. Gain per head, lbs.	418	386	357	568
9. Gain per head per day, lbs.	1.4	2.1	1.7	2.4
10. Pounds of beef produced	41631	73315	41815	102205
<u>Feed used</u>				
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
11. Corn, lbs.	847	896	696	666
12. Small grain, lbs.	-	8	-	-
13. Commercial feed, lbs.	<u>56</u>	<u>69</u>	<u>75</u>	<u>21</u>
14. Total concentrates, lbs.	903	973	771	687
15. Legume hay, lbs.	43	240	497	-
16. Other hay, lbs.	<u>-</u>	<u>-</u>	<u>-</u>	<u>8</u>
17. Total hay, lbs.	43	240	497	8
18. Corn silage, lbs.	1057	191	-	620
19. Grass or oat silage, lbs.	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
20. Total silage, lbs.	1057	191	-	620
<u>Price of cattle</u>				
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
21. Price paid	\$51.58	\$45.61	\$46.26	\$62.35
22. Price received	\$41.10	\$38.78	\$38.76	\$38.39
<u>Cost and return per lot</u>				
	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>
23. Total value produced	\$ 11126	\$ 17717	\$ 9600	\$ 7054
24. Total feed cost	<u>21143</u>	<u>36786</u>	<u>21065</u>	<u>36267</u>
25. Total return over feed	\$-10017	\$-19069	\$-11465	\$-29213
<u>Cost and return per cwt.</u>				
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
26. Value produced	\$ 26.72	\$ 24.17	\$ 22.96	\$ 6.90
27. Feed cost	<u>50.78</u>	<u>50.18</u>	<u>50.37</u>	<u>35.48</u>
28. Return over feed cost	\$-24.06	\$-26.01	\$-27.41	\$-28.58
29. Return per \$100 of feed cost	\$ 53	\$ 48	\$ 46	\$ 19

Table 3. Costs and Returns from Feeding Cattle, 1973-1974 (continued)

	Individual lot numbers					
	22	23	24	25	26	27
1.	Oct 73	Dec 73	Oct 73	Oct 73	Dec 73	Sep 73
2.	85	90	94	85	49	90
3.	Heifers	Heifers	Heifers	Steers	Mixed	Mixed
4.	333	153	234	233	227	214
5.	8.2	7.8	0.0	1.2	10.2	0.0
6.	1043	1040	1004	1215	846	1219
7.	439	680	594	768	469	807
8.	604	360	410	447	377	412
9.	1.8	2.4	1.8	1.9	1.7	1.9
10.	43980	25105	38560	36780	15100	37085
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
11.	611	883	583	693	540	892
12.	62	-	-	-	-	17
13.	43	67	30	44	73	123
14.	716	950	613	737	613	1032
15.	305	135	-	446	185	102
16.	-	-	-	-	-	-
17.	305	135	-	446	185	102
18.	273	797	1514	489	649	-
19.	-	-	-	-	-	-
20.	273	797	1514	489	649	-
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
21.	\$66.94	\$42.11	\$54.98	\$53.04	\$44.01	\$54.94
22.	\$38.14	\$38.02	\$37.45	\$41.56	\$28.60	\$40.08
	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>
23.	\$ 6019	\$ 7039	\$ 4654	\$ 5839	\$ 779	\$ 4063
24.	18724	14482	16265	17547	6272	19965
25.	\$-12705	\$-7443	\$-11611	\$-11708	\$-5493	\$-15902
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
26.	\$ 13.69	\$ 28.04	\$ 12.07	\$ 15.88	\$ 5.16	\$ 10.96
27.	42.57	57.68	42.18	47.71	41.53	53.84
28.	\$-28.88	\$-29.64	\$-30.11	\$-31.83	\$-36.37	\$-42.83
29.	\$ 32	\$ 49	\$ 29	\$ 33	\$ 12	\$ 20

Table 3. Costs and Returns from Feeding Cattle, 1973-1974 (continued)

Item	Individual lot numbers			
	28	29	30	31
<u>Number and weight of cattle fed</u>				
1. Date of purchase	Sep 73	Sep 73	Dec 73	Jan 74
2. Number of head bought	327	104	96	300
3. Sex	Steers	Steers	Heifers	Heifers
4. Days on farm	261	229	184	281
5. Percent death loss	1.8	1.0	6.2	1.0
6. Average sales weight, lbs.	1123	1125	979	1003
7. Average purchase weight, lbs.	635	672	630	536
8. Gain per head, lbs.	488	453	349	467
9. Gain per head per day, lbs.	1.9	2.0	1.9	1.7
10. Pounds of beef produced	152800	45990	26575	136950
<u>Feed used</u>				
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
11. Corn, lbs.	732	1017	990	653
12. Small grain, lbs.	-	-	12	-
13. Commercial feed, lbs.	44	52	73	22
14. Total concentrates, lbs.	776	1069	1075	675
15. Legume hay, lbs.	55	135	301	17
16. Other hay, lbs.	12	-	94	251
17. Total hay, lbs.	67	135	395	268
18. Corn silage, lbs.	586	587	1716	260
19. Grass or oat silage, lbs.	313	-	-	-
20. Total silage, lbs.	899	587	1716	260
<u>Price of cattle</u>				
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
21. Price paid	\$60.55	\$58.08	\$42.14	\$54.75
22. Price received	\$37.13	\$37.08	\$34.95	\$37.13
<u>Cost and return per lot</u>				
	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>
23. Total value produced	\$ 8130	\$ 2389	\$ 4868	\$ 22522
24. Total feed cost	74356	25958	18642	99266
25. Total return over feed	\$-66226	\$-23569	\$-13774	\$-76744
<u>Cost and return per cwt.</u>				
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
26. Value produced	\$ 5.32	\$ 5.19	\$ 18.32	\$ 16.45
27. Feed cost	48.66	56.43	70.15	72.49
28. Return over feed cost	\$-43.34	\$-51.24	\$-51.83	\$-56.04
29. Return per \$100 of feed cost	\$ 1	\$ 9	\$ 35	\$ 23

DETERMINING PROFIT PROSPECTS

Profit prospects for the coming feeding season can be calculated by using the work sheet below. Past records of feed requirements over a period of years for comparable types of cattle fed to similar weights and finish should be used as a basis for the calculations. Feeders will want to use their own estimates of labor, feed, and other costs when records are available. For farmers who do not have records, the averages shown in table 4 of this report will provide data which can be used.

An illustration using some of the average data from this publication is presented on page 18.

PROFIT PROSPECTS WORK SHEET

STEP 1. Determine cost of producing finished animal.

(a) Original cost per head: _____ (wt) x \$ _____ (price) = \$ _____

(b) Feed and other costs per head:

<u>Feed</u>	<u>Amount fed</u>	<u>Price</u>	<u>Cost</u>
Corn, bu.	_____	_____	_____
Small grain, bu.	_____	_____	_____
Supplement, lbs.	_____	_____	_____
All hay, tons	_____	_____	_____
Silage, tons	_____	_____	_____

Total feed cost \$ _____

Other costs - estimated

Death loss: \$ _____ (original cost) x _____ (% death loss) \$ _____

Labor cost: \$ _____ (hrs per head) x \$ _____ (per hour) \$ _____

Interest: \$ _____ (original cost per head) x _____ %
(interest rate for number
of months on feed)

Miscellaneous costs: _____ (lbs gain) x \$1.50 per cwt. \$ _____

Other overhead costs for equipment and shelter:
_____ (lbs gain) x \$1.50 per cwt. \$ _____

(c) Total cost per head \$ _____

STEP 2. Determine selling price you need to cover costs.

Divide: $\frac{\text{total cost per head}}{\text{sales weight in cwt.}} = \frac{\$ \text{_____}}{\text{cwt.}}$ \$ _____

STEP 3. Your estimated sales value

_____ cwt. x \$ _____ (your estimated price) \$ _____

Profit per head \$ _____

Table 4. A Three-year Comparison of Costs and Returns from Feeding Cattle

Item	Long-fed calves*			
	1971-72 average 29 lots	1972-73 average 8 lots	1973-74 average 12 lots	Three- year average
<u>Number and weight of cattle fed</u>				
Number of head bought	148	237	128	171
Days on farm	296	284	288	289
Percent death loss	1.8	2.7	4.1	2.9
Average sales weight, lbs.	991	975	973	980
Average purchase weight, lbs.	443	459	449	450
Gain per head, lbs.	548	516	524	530
Gain per head per day, lbs.	1.9	1.8	1.8	1.8
Pounds of beef produced per lot	77298	118564	61541	85801
<u>Feed used per 100 pounds gain</u>				
Corn, lbs.	636	604	617	619
Small grain, lbs.	8	2	15	8
Commercial feed, lbs.	57	64	66	62
Total concentrates, lbs.	701	670	698	689
Legume hay, lbs.	164	174	139	159
Other hay, lbs.	9	8	4	7
Total hay, lbs.	173	182	143	166
Silage, lbs.	612	830	805	749
<u>Price of cattle</u>				
Price paid per 100 pounds	\$38.44	\$46.38	\$54.93	\$46.58
Price received per 100 pounds	\$34.62	\$44.86	\$40.72	\$40.07
<u>Cost and return per 100 pounds gain</u>				
Value produced	\$32.01	\$43.54	\$26.74	\$34.10
Feed cost	20.42	29.44	42.94	30.93
Return over feed cost	\$11.59	\$14.10	\$-16.20	\$ 3.17
Return per \$100 of feed cost	\$162	\$154	\$ 62	\$126

* Average purchase weight under 500 pounds per head.

Table 4. A Three-year Comparison of Costs and Returns from Feeding Cattle (cont.)

Item	Short-fed yearlings*			
	1971-72	1972-73	1973-74	Three-
	average 19 lots	average 7 lots	average 19 lots	year average
<u>Number and weight of cattle</u>				
Number of head bought	134	239	196	190
Days on farm	230	262	246	246
Percent death loss	0.6	1.3	1.8	1.2
Average sales weight, lbs.	1082	1086	1131	1100
Average purchase weight, lbs.	619	566	631	605
Gain per head, lbs.	463	520	500	495
Gain per head per day, lbs.	2.0	2.0	2.0	2.0
Pounds of beef produced per lot	60692	119612	95029	91778
<u>Feed used per 100 pounds gain</u>				
Corn, lbs.	663	666	691	673
Small grain, lbs.	4	11	2	6
Commercial feed, lbs.	<u>52</u>	<u>65</u>	<u>50</u>	<u>56</u>
Total concentrates, lbs.	719	742	743	735
Legume hay, lbs.	175	99	157	143
Other hay, lbs.	<u>9</u>	<u>8</u>	<u>21</u>	<u>13</u>
Total hay, lbs.	184	107	178	156
Silage, lbs.	414	507	640	520
<u>Price of cattle</u>				
Price paid per 100 pounds	\$34.56	\$45.72	\$52.55	\$44.28
Price received per 100 pounds	\$34.33	\$44.84	\$38.89	\$39.35
<u>Cost and returns per 100 pounds gain</u>				
Value produced	\$35.02	\$41.90	\$20.39	\$32.44
Feed cost	<u>19.77</u>	<u>28.09</u>	<u>45.20</u>	<u>31.02</u>
Return over feed cost	\$15.25	\$13.81	\$-24.81	\$ 1.42
Return per \$100 of feed cost	\$183	\$162	\$ 52	\$132

* Average purchase weight over 500 pounds per head.

Example of Determination of Total Cost and Necessary Selling Price for Long-Fed Calves

STEP 1. Determine cost of producing finished animal

(a) Original cost per head = 449 lbs. @ \$54.93 per cwt.¹ \$246.64

(b) Feed and other costs per head (524 pounds gain)

<u>Feed</u>	<u>Amount fed</u> ²	<u>Price</u> ³	<u>Cost</u>
Corn	57.7 bu.	\$ 2.75	\$158.68
Oats	2.5 bu.	1.40	3.50
Supplement	345.8 lbs.	.095	32.85
All hay	0.4 tons	40.00	16.00
Silage	2.1 tons	12.00	25.20
Total feed cost			236.23

Other costs (estimated)

Death loss: \$246.94 x 1.5% 3.70

Labor cost: 5.0⁴ hours per head x \$3.00 per hour (100 head basis) 15.00

Interest: \$246.94 (original cost per head) x 8% 15.80
(number of days on farm = 289 = .8 year)

Miscellaneous costs: 524 lbs. gain x \$1.50 per cwt. 7.86

Other overhead costs for equipment and shelter 7.86
(524 lbs. gain x \$1.50 per cwt.)

(c) Total cost per head \$533.09

STEP 2. Determine net selling price needed to cover all costs

$$\frac{\text{Total cost per head}}{\text{Number of cwt. sold}} = \frac{\$533.09}{9.73} = \$54.79 = \text{net selling price needed to cover all costs}$$

(marketing costs are not covered so "net" means farm price after market costs are covered)

1. Gain in weight and price based on data in table 4 for the 1973-1974 long fed calves.

2. Based on data contained in table 4.

3. Based on data contained in table 1.

4. Adapted from Cattle Feeder's Planning Guide, University of Minnesota Extension Service, FM-30, September 1966.