



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

FEEDER CATTLE
COSTS AND RETURNS
1960-1961

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

Report No. 266
Department of Agricultural Economics
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
June 1962

FEEDER CATTLE COSTS AND RETURNS

1960-1961

A. R. Wells and T. R. Nodland*

	Page
Introduction	1
Prices	2
Numbers and Weights of Cattle Fed	4
Feeding Data Presented	6
Long-fed Heifer Calves, 1960-1961	7
Long-fed Steer Calves, 1960-1961	10
Long-fed Yearling Steers, 1960-1961	12
Short-fed Yearling Steers, 1960-1961	15
Short-fed Yearling Heifers, 1960-1961	18
Miscellaneous Lots, 1960-1961.	20
Four-year Comparison of Feeder Cattle Costs and Returns	24
Comparison of Returns from Price Spread and from Feeding for the Different Cattle Feeding Programs	26
Labor Requirements for Feeding Cattle	28
Estimated Return Over all Costs per Hour of Labor	29
Determining Profit Prospects	31
Feed Requirements	34

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 by two primary factors: (1) the price spread between the purchase price and the sale price of the cattle, and (2) the feed cost per pound of gain. This is emphasized by this study of costs and returns for 70 lots of feeder cattle on Southern Minnesota farms in the 1960-1961 feeding season. This information was obtained from records kept by individual cattle feeders and by members of the Southeastern, Southwestern, and West Central Minnesota Farm Management Services. 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 efficiently and price spread in feeder cattle production.

*Assistance of H. G. Routhe and Duane Erickson in the preparation of this report is appreciated.

The data presented cover averages of individual lots of cattle from purchase as feeders to sale of fat cattle. Five different programs and a miscellaneous group are represented: (1) long-fed heifer calves; (2) long-fed steer calves; (3) long-fed yearling steers; (4) short-fed yearling steers; (5) short-fed yearling heifers; and (6) miscellaneous lots. Cattle on feed 240 days or less are classified as "short-fed" and those fed for longer periods than 240 days as "long-fed." All lots with an average weight of 500 pounds or less per head at purchase are classed as calves. All lots with an average weight of more than 500 pounds per head at purchase are classed as yearlings.

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

PRICES

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 1960 and 1961. 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.

TABLE 1.--AVERAGE ANNUAL FEED PRICES

FEED	1960	1961
Alfalfa hay, per ton	\$19.50	\$19.50
Timothy or brome hay, per ton	11.20	11.30
Oats or hay silage, per ton	6.00	6.00
Corn silage, per ton	6.50	6.75
Ear corn, per bushel96	.94
Oats, per bushel58	.60
Soybean oil meal, per 100 lbs.	3.85	4.35
Pasture, per month per head	2.50	2.50

Monthly prices of stockers and feeder cattle at South St. Paul from January, 1960, through April, 1962, 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.

Price
per cwt.

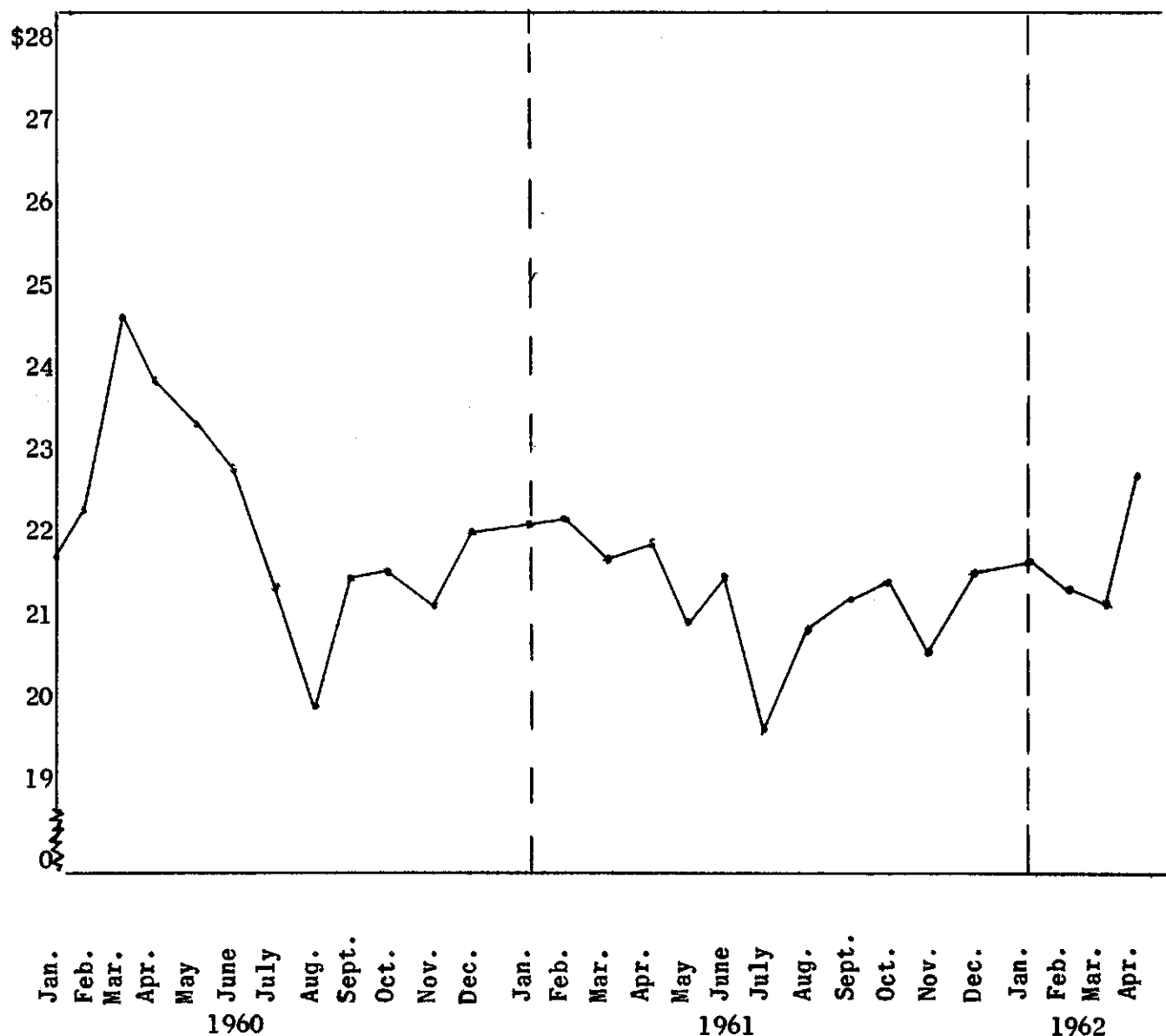


Figure 1. Average monthly prices per 100 pounds of stockers and feeders, all weights, South St. Paul, January, 1960 -- April, 1962 (compiled from Livestock Market News Statistics and Related Data, USDA, PMA, 1960-1962)

The average purchase and sales prices per 100 pounds of feeder cattle for the years 1957-1961 by type of feeding program are shown in Figure 2.

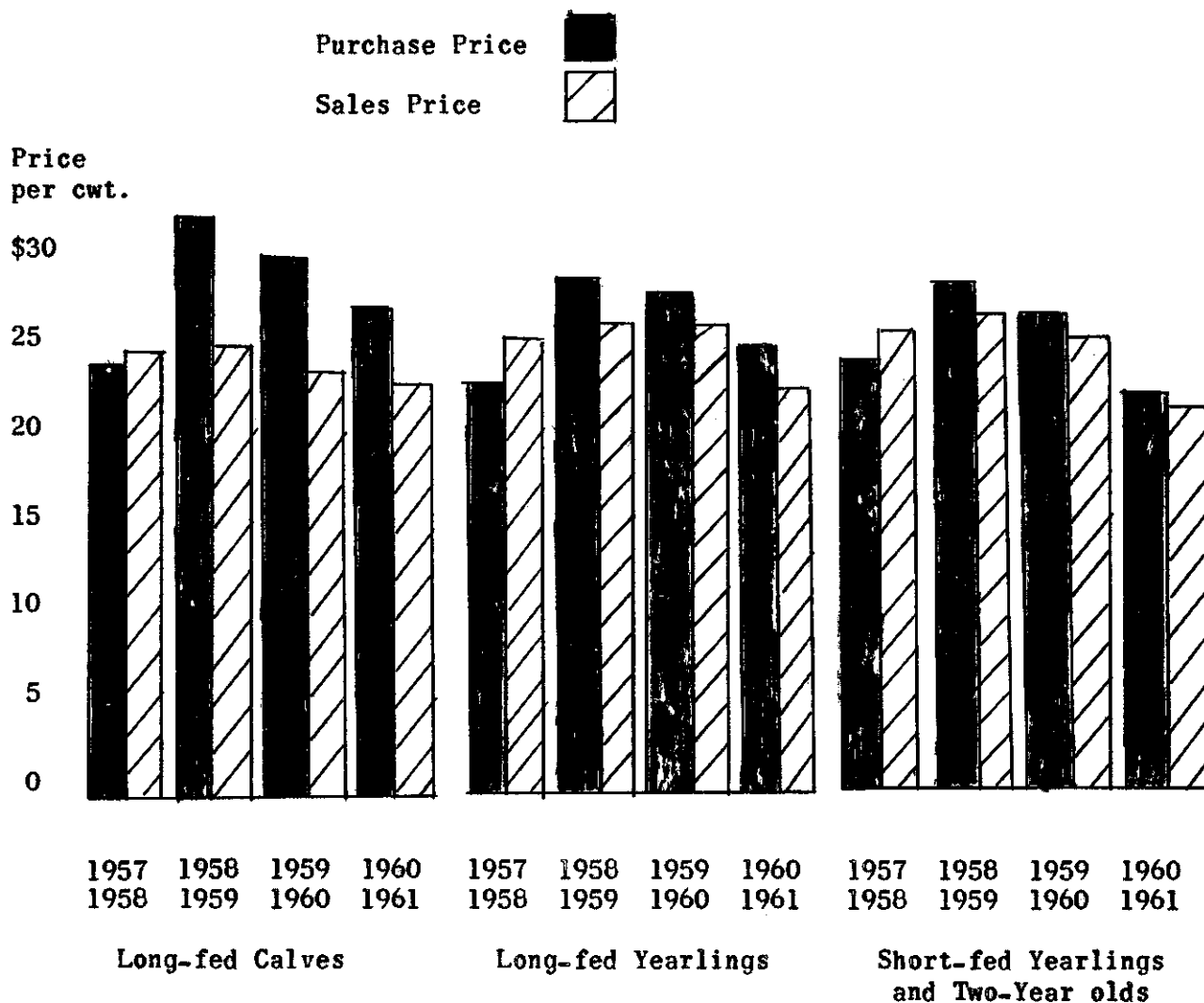


FIGURE 2.--Average purchase and sale prices per 100 pounds of feeder cattle by feeding program on farms studied, 1957-1961.

NUMBERS AND WEIGHTS OF CATTLE FED

The individual lots of cattle for the 1960-1961 feeding period included a wide range as to numbers per lot, gain per head, and daily gain. The data in Table 2 indicates the range from high to low for each item and also give a comparison between the various feeding programs used by farmers included in this study.

Daily gains were greatest for the short-fed cattle. This was due in part to their larger size and greater capacity for feed and to the fact that they were pushed along more rapidly. Death losses occurred in 28 of the 70 lots. In a few of the cases it was an important factor limiting the profits for these lots.

TABLE 2.--Range in Numbers and Weights for Individual Lots, 1960-61.

	7 lots long-fed steer calves			14 lots long-fed heifer calves		
	Avg.	High	Low	Avg.	High	Low
Number of head in lot	83	164	40	59	159	15
Avg. purchase weight	396	441	315	409	495	292
Avg. sale weight	1048	1161	960	886	956	815
Avg. gain in weight/hd.	652	846	550	477	579	320
Avg. daily gain/hd.	1.82	1.89	1.78	1.40	1.73	1.24
	12 lots long-fed yearling steers			10 lots short-fed yearling steers		
	Avg.	High	Low	Avg.	High	Low
Number of head in lot	76	201	25	70	154	30
Avg. purchase weight	604	798	504	731	861	569
Avg. sale weight	1079	1269	903	1114	1232	991
Avg. gain in weight/hd.	475	601	386	383	483	266
Avg. daily gain/hd.	1.65	2.08	1.19	1.92	2.27	1.77
	8 lots short-fed yearling heifers			19 lots miscellaneous		
	Avg.	High	Low	Avg.	High	Low
Number of head in lot	63	116	33	82	170	21
Avg. purchase weight	651	759	504	540	790	369
Avg. sale weight	974	1020	929	998	1343	689
Avg. gain in weight/hd.	323	516	215	458	684	268
Avg. daily gain/hd.	1.79	2.23	1.50	1.75	2.54	.94

FEEDING DATA

The average numbers and weights of cattle fed, the quantities of feed used and the costs and returns from feeding operations for the 1960-61 feeding season are shown in Tables 3 through 8 for the various feeding programs.

The information on costs and returns includes the average prices paid for cattle, the average cost and returns per lot, per 100 pounds gain in weight and per head. Interest, building, equipment, veterinary, trucking and commission costs and other costs are included for the average of those farmers reporting these items of cost. The numbers in parenthesis on lines 33 through 37 indicate the number of lots reporting these costs composing the average.

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

Two factors contribute to return over feed cost, (1) a gain in weight produced in the lot at less cost than the selling price, and (2) a positive price spread between the cost of the feeders and that of the fed cattle when sold. The combined effect of these two factors determines how much profit or loss is made on any given lot of feeder cattle. The amount each contributes to the return over feed cost is shown on lines 30 and 31 of the tables. The return from feeding (line 31) is the difference between the feed cost per 100 pounds gain in weight and the selling price per 100 pounds. The remainder of return over feed cost is the price spread minus death loss. The return per \$100 feed cost (line 32) is obtained by dividing the total return by the total feed cost. This tells what was received on the average per \$100 spent for feed. The non-feed costs are included (line 33 to line 37) for those lots reporting these costs.

TABLE 3.--Costs and Returns from Long-fed Heifer Calves, 1960-1961

	Average of 14 lots	Individual lot numbers			
		1	2		3
Number and weight of cattle fed:					
1. Number of head bought	59	37	20		108
2. Days on farm	324	273	354		345
3. Days on pasture	14	175	-		-
4. Percent death loss	.65	2.7	-		-
5. Average purchase wt., lbs.	409	450	407		429
6. Average sales wt., lbs.	886	921	933		914
7. Gain per head, lbs.	477	471	526		485
8. Gain per head per day, lbs.	1.48	1.73	1.49		1.41
9. Pounds of beef produced	29238	17430	10525		52303
Feed used per:	Head	Cwt.	Cwt.	Cwt.	Cwt.
10. Corn (bu. per hd.) (lbs./cwt.)	43.9	520	538	529	471
11. Small gain (bu. per hd.) (# cwt.)	2.4	16	2	12	-
12. Commercial feed, lbs.	220	47	26	-	68
13. Total concentrates, lbs.	2757	583	566	541	539
14. Legume hay, lbs.	1801	387	69	380	197
15. Other hay, lbs.	365	81	23	19	65
16. Total dry roughage, lbs.	2166	468	92	399	262
17. Corn silage, lbs.	749	152	57	-	363
18. Grass or oat silage, lbs.	143	29	-	-	-
19. Total silage, lbs.	892	181	57	-	363
20. Pasture, days	14	3	36	-	-
Price of cattle per:	Head	Cwt.	Cwt.	Cwt.	Cwt.
21. Price paid	\$102.19	\$24.96	\$27.56	\$24.00	\$23.00
22. Price received	197.78	22.24	25.70	22.50	22.37
23. Price spread or gross margin	95.59	-2.72	-1.86	-1.50	-.63
Cost and return per:	Lot	Lot	Lot	Lot	Lot
24. Total value produced	\$5780.35	\$4170.00	\$2246.02	\$11409.35	
25. Total feed cost	4403.18	2484.60	1359.66	7385.39	
26. Total return over feed	1377.17	1685.40	886.36	4023.96	
Cost and return per:	Head	Cwt.	Cwt.	Cwt.	Cwt.
27. Value produced	\$95.59	\$19.81	\$23.92	\$21.34	\$21.81
28. Feed costs	72.49	15.35	14.25	12.92	14.12
29. Return over feed cost	23.10	4.46	9.67	8.42	7.69
30. Return over feed cost from price spread	-	-2.43	-1.78	-1.16	-.56
31. Return over feed cost from feeding	-	6.89	11.45	9.58	8.25
32. Return per \$100 feed cost	-	132	168	165	154
33. Veterinary costs (2)	.89	.24	-	-	-
34. Commission, yardage and trucking (5)	3.64	.83	.72	1.37	-
35. Interest (3)	6.51	1.57	1.19	1.36	-
36. Building and equipment costs (3)	9.55	2.30	.30	2.97	-
37. Total other costs (3)	.93	.21	.32	.14	-
38. Total listed costs	-	-	16.78	18.76	14.12
39. Return over listed costs	-	-	7.14	2.58	7.69

TABLE 3.--Costs and Returns from Long-fed Heifer Calves, 1960-1961 (continued)

	Individual lot numbers				
	4	5	6	7	8
Number and weight of cattle fed:					
1. Number of head bought	45	26	44	75	60
2. Days on farm	342	365	379	319	327
3. Days on pasture	25	-	-	-	-
4. Percent death loss	-	-	-	-	-
5. Average purchase wt., lbs.	465	464	292	417	371
6. Average sales wt., lbs.	956	955	840	932	829
7. Gain per head, lbs.	491	491	548	515	458
8. Gain per head per day, lbs.	1.44	1.35	1.45	1.61	1.40
9. Pounds of beef produced	22130	12785	24120	38605	27505
Feed used per:					
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
10. Corn (lbs./cwt.)	471	242	416	471	432
11. Small grain (#cwt.)	17	95	38	6	-
12. Commercial feed lbs.	47	32	32	52	67
13. Total concentrates, lbs.	535	369	486	529	499
14. Legume hay, lbs.	164	462	452	192	382
15. Other hay, lbs.	-	31	143	-	-
16. Total dry roughage, lbs.	164	493	595	192	382
17. Corn silage, lbs.	362	360	-	394	371
18. Grass or oat silage, lbs.	406	-	-	-	-
19. Total silage, lbs.	768	360	-	394	371
20. Pasture, days	5	-	-	-	-
Price of cattle per:					
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
21. Price paid	\$27.86	\$25.75	\$24.30	\$26.10	\$24.46
22. Price received	24.87	23.10	22.38	22.27	21.82
23. Price spread or gross margin	-2.99	-2.65	-1.92	-3.83	-2.64
Cost and return per:					
	Lot	Lot	Lot	Lot	Lot
24. Total value produced	\$4879.66	\$2634.36	\$5149.69	\$7399.26	\$5417.03
25. Total feed cost	3254.60	1699.31	3426.74	5294.80	4022.22
26. Total return over feed	1625.06	935.05	1722.95	2104.46	1394.81
Cost and return per:					
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
27. Value produced	\$22.05	\$20.60	\$21.35	\$19.17	\$19.69
28. Feed costs	14.71	13.29	14.21	13.72	14.62
29. Return over feed cost	7.34	7.31	7.14	5.45	5.07
30. Return over feed cost from price spread	-2.82	-2.50	-1.03	-3.10	-2.13
31. Return over feed cost from feeding	10.16	9.81	8.17	8.55	7.20
32. Return per \$100 feed cost	150	155	150	140	135
33. Veterinary costs	-	-	-	-	-
34. Commission, yardage and trucking	.26	-	-	-	-
35. Interest	-	-	-	-	-
36. Building and equipment costs	-	-	-	-	-
37. Total other costs	-	-	-	-	-
38. Total listed costs	14.97	13.29	14.21	13.72	14.62
39. Return over listed costs	7.08	7.31	7.14	5.45	5.07

TABLE 3.--Costs and Returns from Long-fed Heifer Calves, 1960-1961 (continued)

	<u>Individual lot numbers</u>					
	9	10	11	12	13	14
1.	159	38	125	15	49	27
2.	351	348	320	261	295	258
3.	-	-	-	-	-	-
4.	.6	2.6	3.2	-	-	-
5.	348	376	353	447	408	495
6.	927	866	816	884	820	815
7.	579	490	463	437	412	320
8.	1.65	1.41	1.45	1.67	1.40	1.24
9.	92040	18636	57875	6555	20185	8640
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
10.	574	591	614	771	515	649
11.	-	-	18	-	25	17
12.	55	38	54	38	102	46
13.	629	629	686	809	642	712
14.	219	509	1137	336	224	694
15.	-	169	10	-	656	23
16.	219	678	1147	336	880	717
17.	163	-	17	-	40	-
18.	-	-	-	-	-	-
19.	163	-	17	-	40	-
20.	-	-	-	-	-	-
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
21.	\$26.50	\$23.81	\$23.51	\$24.50	\$24.50	\$23.57
22.	22.48	22.13	19.39	21.76	20.55	20.07
23.	-4.02	-1.68	-4.12	-2.74	-3.95	-3.50
	Lot	Lot	Lot	Lot	Lot	Lot
24.	\$18463.47	\$3883.50	\$9403.53	\$1242.70	\$3360.40	\$1266.56
25.	14295.63	3213.40	8844.94	1183.41	3482.44	1697.92
26.	4167.84	670.10	558.59	59.29	-122.04	-431.36
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
27.	\$20.06	\$20.85	\$16.25	\$18.96	\$16.65	\$14.66
28.	15.53	17.25	15.28	18.05	17.25	19.65
29.	4.53	3.60	.97	.91	-.60	-4.99
30.	-2.42	-1.28	-3.14	-2.80	-3.90	-5.41
31.	6.95	4.88	4.11	3.71	3.30	.42
32.	129	121	106	105	97	75
33.	-	.14	-	-	-	.34
34.	-	.31	-	-	-	1.50
35.	-	-	-	-	-	2.12
36.	-	-	-	-	-	3.62
37.	-	-	-	-	-	.17
38.	15.53	17.70	15.28	18.05	17.25	27.40
39.	4.53	3.15	.97	.91	-.60	-12.74

TABLE 4.--Costs and Returns from Long-fed Steer Calves, 1960-1961

		Average of 7 lots		Individual lot numbers		
				15	16	17
Number and weight of cattle fed:						
1.	Number of head bought	83		164	52	109
2.	Days on farm	358		471	376	350
3.	Days on pasture	-		-	-	-
4.	Percent death loss	1.17		-	1.9	.9
5.	Average purchase wt., lbs.	396		315	365	398
6.	Average sales wt., lbs.	1048		1161	1034	1061
7.	Gain per head, lbs.	652		846	669	663
8.	Gain per head per day, lbs.	1.82		1.80	1.78	1.89
9.	Pounds of beef produced	53026		138700	34805	72335
Feed used per:		Head	Cwt.	Cwt.	Cwt.	Cwt.
10.	Corn (bu. per hd.) (lbs. cwt.)	57.6	498	455	454	482
11.	Small grain (bu. per hd.) (#cwt)	1.8	10	2	5	8
12.	Commercial feed, lbs.	345	54	40	57	69
13.	Total concentrates, lbs.	3362	562	497	516	559
14.	Legume hay, lbs.	928	149	41	161	75
15.	Other hay, lbs.	58	8	28	-	25
16.	Total dry roughage, lbs.	986	157	69	161	100
17.	Corn silage, lbs.	2684	417	247	316	691
18.	Grass or oat silage, lbs.	445	76	-	-	-
19.	Total silage, lbs.	3129	493	247	316	691
20.	Pasture, days	-	-	-	-	-
Price of cattle per:		Head	Cwt.	Cwt.	Cwt.	Cwt.
21.	Price paid	\$112.12	\$28.60	\$34.69	\$29.21	\$24.20
22.	Price received	244.97	23.24	25.59	24.08	23.37
23.	Price spread or gross margin	132.85	-5.36	-9.10	-5.13	-.83
Cost and return per:		Lot		Lot	Lot	Lot
24.	Total value produced	\$11946.11		\$30797.54	\$7796.49	\$16544.75
25.	Total feed cost	7848.89		17037.65	4521.10	10372.91
26.	Total return over feed	4097.52		13759.89	3275.39	6171.84
Cost and return per:		Head	Cwt.	Cwt.	Cwt.	Cwt.
27.	Value produced	\$132.85	\$20.15	\$22.20	\$22.40	\$22.87
28.	Feed costs	91.22	14.10	12.28	12.99	14.34
29.	Return over feed cost	41.63	6.05	9.92	9.41	8.53
30.	Return over feed cost from price spread	-	-3.09	-3.39	-1.68	-.50
31.	Return over feed cost from feeding	-	9.14	13.31	11.09	9.03
32.	Return per \$100 feed cost	-	147	181	174	160
33.	Veterinary costs (2)	2.61	.40	-	-	.69
34.	Commission, yardage and trucking (3)	9.85	1.61	-	-	1.14
35.	Interest (1)	6.01	.91	-	-	.91
36.	Building and equipment costs (2)	4.10	.63	-	-	.41
37.	Total other costs (2)	2.12	.33	-	-	.32
38.	Total listed costs	-	-	12.28	12.99	17.81
39.	Return over listed costs	-	-	9.92	9.41	5.06

TABLE 4.--Costs and Returns from Long-fed Steer Calves, 1960-1961 (continued)

	<u>Individual lot numbers</u>			
	18	19	20	21
1.	68	68	40	82
2.	324	353	302	332
3.	-	-	-	-
4.	1.5	1.5	-	2.4
5.	431	441	410	410
6.	1015	1087	960	1015
7.	584	646	550	605
8.	1.80	1.83	1.82	1.82
9.	39730	13960	21995	49655
	Cwt.	Cwt.	Cwt.	Cwt.
10.	<u>437</u>	<u>550</u>	<u>601</u>	<u>509</u>
11.	-	41	7	6
12.	36	26	50	95
13.	473	617	658	610
14.	161	212	191	201
15.	-	-	-	-
16.	161	212	191	201
17.	-	446	491	729
18.	534	-	-	-
19.	534	446	491	729
20.	-	-	-	-
	Cwt.	Cwt.	Cwt.	Cwt.
21.	<u>\$27.14</u>	<u>\$25.03</u>	<u>\$31.71</u>	<u>\$28.20</u>
22.	22.74	22.99	23.67	20.22
23.	-4.40	-2.04	-8.04	-7.98
	Lot	Lot	Lot	Lot
24.	<u>\$7744.21</u>	<u>\$9497.17</u>	<u>\$3887.46</u>	<u>\$7357.25</u>
25.	4667.51	6461.16	3433.13	8448.83
26.	3076.70	3036.01	454.33	-1091.58
	Cwt.	Cwt.	Cwt.	Cwt.
27.	<u>\$19.49</u>	<u>\$21.60</u>	<u>\$17.67</u>	<u>\$14.82</u>
28.	11.75	14.69	15.61	17.02
29.	7.74	6.91	2.06	-2.20
30.	-3.25	-1.39	-6.00	-5.40
31.	10.99	8.30	8.06	3.20
32.	166	147	113	87
33.	-	.10	-	-
34.	-	1.85	1.82	-
35.	-	-	-	-
36.	-	.85	-	-
37.	-	.33	-	-
38.	11.75	17.82	17.43	17.02
39.	7.74	3.78	.24	-2.20

TABLE 5.--Costs and Returns from Long-fed Yearling Steers, 1960-1961.

	Average of 12 lots		Individual lot numbers	
			22	23
<u>Number and weight of cattle fed:</u>				
1. Number of head bought	76		52	31
2. Days on farm	291		292	274
3. Days on pasture	24		-	-
4. Percent death loss	1.03		1.9	-
5. Average purchase wt., lbs.	604		525	625
6. Average sales wt., lbs.	1079		1051	1039
7. Gain per head, lbs.	475		526	414
8. Gain per head per day, lbs.	1.65		1.80	1.51
9. Pounds of beef produced	38799		27350	12805
<u>Feed used per:</u>				
	Head	Cwt.	Cwt.	Cwt.
10. Corn (bu. per head) (lbs. cwt.)	51.2	604	283	647
11. Small grain (bu. per hd) (#cwt.)	1.6	11	26	35
12. Commercial feed, lbs.	256	53	24	51
13. Total concentrates, lbs.	3174	668	333	733
14. Legume hay, lbs.	1075	234	66	313
15. Other hay, lbs.	99	23	-	234
16. Total dry roughage, lbs.	1174	257	66	547
17. Corn silage, lbs.	2641	550	1075	250
18. Grass or oat silage, lbs.	230	52	-	-
19. Total silage, lbs.	2871	602	1075	250
20. Pasture, days	24	5	-	-
<u>Price of cattle per:</u>				
	Head	Cwt.	Cwt.	Cwt.
21. Price paid	\$143.25	\$23.77	\$17.66	\$17.12
22. Price received	239.72	22.11	18.70	21.39
23. Price spread or gross margin	96.47	-1.66	+1.04	+4.27
<u>Cost and return per:</u>				
	Lot		Lot	Lot
24. Total value produced	\$7762.05		\$5394.47	\$3567.58
25. Total feed cost	6397.30		2807.39	2465.65
26. Total return over feed	1364.75		2587.08	1101.93
<u>Cost and return per:</u>				
	Head	Cwt.	Cwt.	Cwt.
27. Value produced	\$96.47	\$19.96	\$19.72	\$27.86
28. Feed costs	83.67	17.65	10.27	19.26
29. Return over feed cost	12.80	2.31	9.45	8.60
30. Return over feed cost from price spread	-	-2.15	1.02	6.47
31. Return over feed cost from feeding	-	4.46	8.43	2.13
32. Return per \$100 feed cost	-	120	209	145
33. Veterinary costs (2)	1.42	.27	-	-
34. Commission, yardage and trucking (4)	5.87	1.16	-	-
35. Interest (4)	7.78	1.50	-	-
36. Building and equipment costs (4)	2.52	.51	-	-
37. Total other costs (1)	2.46	.48	-	-
38. Total listed costs	-	-	10.27	19.26
39. Return over listed costs	-	-	9.45	8.60

TABLE 5.--Costs and Returns from Long-fed Yearling Steers, 1960-1961 (continued)

	<u>Individual lot numbers</u>					
	24	25	26	27	28	29
1.	83	201	140	87	25	31
2.	259	387	289	284	284	373
3.	-	98	-	21	-	101
4.	-	1.5	-	5.75	-	3.2
5.	639	560	580	504	627	608
6.	1072	1134	1181	945	1129	1053
7.	433	574	601	441	502	445
8.	1.67	1.48	2.08	1.55	1.77	1.19
9.	42182	115375	84165	38400	12550	13800
10.	<u>Cwt.</u> 560	<u>Cwt.</u> 616	<u>Cwt.</u> 552	<u>Cwt.</u> 490	<u>Cwt.</u> 608	<u>Cwt.</u> 648
11.	-	1	5	42	-	18
12.	37	47	66	102	96	38
13.	597	664	623	634	704	704
14.	190	52	216	115	120	297
15.	-	39	-	-	-	-
16.	190	91	216	115	120	297
17.	71	333	404	292	590	-
18.	-	-	-	625	-	-
19.	71	333	404	917	590	-
20.	-	17	-	4	-	22
21.	<u>Cwt.</u> \$22.19	<u>Cwt.</u> \$28.96	<u>Cwt.</u> \$28.28	<u>Cwt.</u> \$17.15	<u>Cwt.</u> \$26.50	<u>Cwt.</u> \$27.65
22.	22.04	25.50	24.43	18.63	23.46	23.76
23.	-.15	-3.46	-3.85	+1.48	-3.04	-3.89
24.	<u>Lot</u> \$9220.14	<u>Lot</u> \$25514.62	<u>Lot</u> \$17446.12	<u>Lot</u> \$7805.66	<u>Lot</u> \$2468.29	<u>Lot</u> \$2546.94
25.	6038.46	17899.91	13557.06	6757.64	2331.48	2474.23
26.	3181.68	7614.71	3889.06	1048.02	136.81	72.71
27.	<u>Cwt.</u> \$21.86	<u>Cwt.</u> \$22.11	<u>Cwt.</u> \$20.73	<u>Cwt.</u> \$20.33	<u>Cwt.</u> \$19.67	<u>Cwt.</u> \$18.46
28.	14.32	15.51	16.11	17.60	18.58	17.93
29.	7.54	6.60	4.62	2.73	1.09	.53
30.	-.18	-3.39	-3.70	1.70	-3.79	-5.30
31.	7.72	9.99	8.32	1.03	4.88	5.83
32.	153	143	129	116	106	103
33.	-	.32	-	-	-	-
34.	1.18	1.27	-	-	-	-
35.	1.01	2.30	-	-	-	-
36.	.62	.45	-	-	-	-
37.	.48	-	-	-	-	-
38.	17.61	19.85	16.11	17.60	18.58	17.93
39.	4.25	2.26	4.62	2.73	1.09	.53

TABLE 5.--Costs and Returns from Long-fed Yearling Steers, 1960-1961 (continued)

	Individual lot numbers			
	30	31	32	33
<u>Number and weight of cattle fed:</u>				
1. Number of head bought	26	165	30	41
2. Days on farm	244	273	287	249
3. Days on pasture	-	63	-	-
4. Percent death loss	-	-	-	-
5. Average purchase wt., lbs.	582	798	683	517
6. Average sales wt., lbs.	1031	1269	1141	903
7. Gain per head, lbs.	449	471	458	386
8. Gain per head per day, lbs.	1.84	1.73	1.60	1.55
9. Pounds of beef produced	11675	77735	13720	15833
<u>Feed used per:</u>				
	Cwt.	Cwt.	Cwt.	Cwt.
10. Corn (lbs. per cwt.)	712	548	735	852
11. Small grain (lbs. per cwt.)	-	-	-	11
12. Commercial feed, lbs.	51	66	26	33
13. Total concentrates, lbs.	763	614	761	896
14. Legume hay, lbs.	445	118	481	392
15. Other hay, lbs.	-	-	-	-
16. Total dry roughage, lbs.	445	118	481	392
17. Corn silage, lbs.	-	921	2041	619
18. Grass or oat silage, lbs.	-	-	-	-
19. Total silage, lbs.	-	921	2041	619
20. Pasture, days	-	13	-	-
<u>Price of cattle per:</u>				
	Cwt.	Cwt.	Cwt.	Cwt.
21. Price paid	\$23.89	\$24.87	\$26.01	\$24.91
22. Price received	21.50	21.34	24.50	20.03
23. Price spread or gross margin	-2.39	-3.53	-1.51	-4.88
<u>Cost and return per:</u>				
	Lot	Lot	Lot	Lot
24. Total value produced	\$2147.00	\$11944.08	\$2952.36	\$2137.70
25. Total feed cost	2097.95	13410.72	3376.20	3551.18
26. Total return over feed	49.05	-1466.64	-423.84	-1413.48
<u>Cost and return per:</u>				
	Cwt.	Cwt.	Cwt.	Cwt.
27. Value produced	\$18.39	\$15.36	\$21.52	\$13.50
28. Feed costs	17.97	17.25	24.61	22.43
29. Return over feed cost	.42	-1.89	-3.09	-8.93
30. Return over feed cost from price spread	-3.11	-5.98	-2.98	-6.53
31. Return over feed cost from feeding	3.53	4.09	-.11	-2.40
32. Return per \$100 feed cost	102	89	87	60
33. Veterinary costs (2)	-	.21	-	-
34. Commission, yardage and trucking (4)	.54	1.66	-	-
35. Interest (4)	.07	2.64	-	-
36. Building and equipment costs (4)	.37	.58	-	-
37. Total other costs (1)	-	-	-	-
38. Total listed costs	18.95	22.34	24.61	22.43
39. Return over listed costs	-.56	-6.98	-3.09	-8.93

TABLE 6.--Costs and Returns from Short-fed Yearling Steers, 1960-1961

	Average of 10 lots	Individual lot numbers	
		34	35
Number and weight of cattle fed:			
1. Number of head bought	70	30	46
2. Days on farm	200	216	183
3. Days on pasture	7	-	-
4. Percent death loss	1.17	3.3	-
5. Average purchase wt., lbs.	731	625	833
6. Average sales wt., lbs.	1114	1010	1171
7. Gain per head, lbs.	383	385	338
8. Gain per head per day, lbs.	1.92	1.78	1.85
9. Pounds of beef produced	26966	11555	15565
Feed used per:			
	Head	Cwt.	Cwt.
10. Corn (bu.per hd.) (lbs./cwt.)	45.7	663	690
11. Small grain(bu.per hd.) (#/cwt.)	1.2	10	-
12. Commercial feed, lbs.	247	65	21
13. Total concentrates, lbs.	2843	738	711
14. Legume hay, lbs.	789	230	318
15. Other hay, lbs.	53	13	-
16. Total dry roughage, lbs.	842	243	318
17. Corn silage, lbs.	2301	655	-
18. Grass or oat silage, lbs.	42	9	-
19. Total silage, lbs.	2343	664	-
20. Pasture, days	7	2	-
Price of cattle per:			
	Head	Cwt.	Cwt.
21. Price paid	\$161.02	\$21.86	\$16.68
22. Price received	238.73	21.36	19.12
23. Price spread or gross margin	77.71	-.50	2.44
Cost and return per:			
	Lot	Lot	Lot
24. Total value produced	\$5295.95	\$2665.49	\$3944.60
25. Total feed costs	4840.89	1767.00	2809.25
26. Total return over feed	455.06	898.49	1135.35
Cost and return per:			
	Head	Cwt.	Cwt.
27. Value produced	\$77.71	\$20.34	\$23.07
28. Feed costs	69.71	18.48	15.29
29. Return over feed costs	8.00	1.86	7.78
30. Return over feed costs from price spread	-	-1.02	3.95
31. Return over feed costs from feeding	-	2.88	3.83
32. Return per \$100 feed	-	113	151
33. Veterinary costs (1)	.65	.20	-
34. Commission, yardage and trucking (4)	8.35	2.31	-
35. Interest (3)	6.48	1.75	-
36. Building and equipment costs (3)	5.13	1.32	-
37. Total other costs (1)	.58	.18	-
38. Total listed costs	-	-	15.29
39. Return over listed cost	-	-	7.78

TABLE 6.--Costs and Returns from Short-fed Yearling Steers, 1960-1961 (Continued)

	Individual lot numbers			
	36	37	38	39
<u>Number and weight of cattle fed:</u>				
1. Number of head bought	77	55	30	136
2. Days on farm	229	207	218	234
3. Days on pasture	30	22	-	-
4. Percent death loss	1.3	1.8	-	-
5. Average purchase wt., lbs.	569	704	655	734
6. Average sales wt., lbs.	991	1138	1048	1159
7. Gain per head, lbs.	422	434	393	425
8. Gain per head per day, lbs.	1.84	2.10	1.80	1.82
9. Pounds of beef produced	32490	23870	11785	57916
<u>Feed used per:</u>				
	Cwt.	Cwt.	Cwt.	Cwt.
10. Corn (lbs./cwt.)	586	702	783	667
11. Small grain (lbs. per cwt.)	70	-	20	-
12. Commercial feed, lbs.	25	62	66	66
13. Total concentrates, lbs.	681	764	869	733
14. Legume hay, lbs.	258	117	85	152
15. Other hay, lbs.	-	-	85	-
16. Total dry roughage, lbs.	258	117	170	152
17. Corn silage, lbs.	536	126	-	622
18. Grass or oat silage, lbs.	12	-	-	-
19. Total silage, lbs.	548	126	-	622
20. Pasture, days	7	5	-	-
<u>Price of cattle per:</u>				
	Cwt.	Cwt.	Cwt.	Cwt.
21. Price paid	\$17.69	\$24.36	\$21.00	\$23.52
22. Price received	20.00	22.75	20.55	21.77
23. Price spread or gross margin	2.31	-1.61	-.45	-1.75
<u>Cost and return per:</u>				
	Lot	Lot	Lot	Lot
24. Total value produced	\$7511.40	\$4806.21	\$2333.96	\$10856.51
25. Total feed costs	5596.08	3849.85	2142.52	10373.60
26. Total return over feed	1915.32	956.36	191.44	482.91
<u>Cost and return per:</u>				
	Cwt.	Cwt.	Cwt.	Cwt.
27. Value produced	\$23.12	\$20.14	\$19.80	\$18.75
28. Feed costs	17.22	16.13	18.18	17.91
29. Return over feed costs	5.90	4.01	1.62	.84
30. Return over feed costs from price spread	3.12	-2.61	-.75	-3.02
31. Return over feed costs from feeding	2.78	6.62	2.37	3.86
32. Return per \$100 feed	134	125	109	105
33. Veterinary costs	-	-	-	-
34. Commission, yardage and trucking	-	-	-	-
35. Interest	-	-	-	-
36. Building and equipment costs	-	-	-	-
37. Total other costs	-	-	-	-
38. Total listed costs	17.22	16.13	18.18	17.91
39. Return over listed costs	5.90	4.01	1.62	.84

TABLE 6.--Costs and Returns from Short-fed Yearling Steers, 1960-1961 (continued)

	<u>Individual lot numbers</u>			
	40	41	42	43
1.	154	70	70	30
2.	140	220	209	147
3.	20	-	-	-
4.	.6	-	1.4	3.3
5.	843	749	732	861
6.	1161	1232	1101	1127
7.	318	483	369	266
8.	2.27	2.20	1.77	1.81
9.	48920	33750	25840	7969
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
10.	795	649	694	456
11.	-	-	-	8
12.	78	106	49	87
13.	873	755	743	551
14.	57	66	213	954
15.	-	22	-	-
16.	57	88	213	954
17.	307	845	774	2259
18.	-	77	-	-
19.	307	922	774	2259
20.	6	-	-	-
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
21.	\$25.03	\$24.00	\$24.55	\$18.25
22.	23.20	21.94	21.31	18.95
23.	-1.83	-2.06	-3.24	.70
	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>
24.	\$8980.17	\$6321.50	\$3849.00	\$1690.61
25.	8703.63	6495.94	4460.45	2210.55
26.	276.54	-174.44	-611.45	-519.94
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
27.	\$18.36	\$18.73	\$14.90	\$21.21
28.	17.79	19.25	17.26	27.74
29.	.57	-.52	-2.36	-6.53
30.	-4.84	-3.21	-6.41	2.26
31.	5.41	2.69	4.05	-8.79
32.	103	97	86	76
33.	.20	-	-	-
34.	3.42	2.49	-	1.06
35.	1.84	1.45	-	-
36.	.91	1.55	-	-
37.	.18	-	-	-
38.	24.34	24.74	17.26	28.80
39.	-5.98	-6.01	-2.36	-7.59

TABLE 7.--Costs and Returns from Short-fed Yearling Heifers, 1960-1961

	Average of 8 lots		Individual lot numbers		
			44	45	46
Number and weight of cattle fed:					
1. Number of head bought	63		33	67	34
2. Days on farm	180		185	175	174
3. Days on pasture	11		76	-	-
4. Percent death loss	.19		-	1.5	-
5. Average purchase wt., lbs.	651		605	653	718
6. Average sales wt., lbs.	974		929	958	1011
7. Gain per head, lbs.	323		324	305	293
8. Gain per head per day, lbs	1.79		1.75	1.74	1.68
9. Pounds of beef produced	21885		10700	20420	9970
Feed used per:					
	Head	Cwt.	Cwt.	Cwt.	Cwt.
10. Corn(bu.per hd.) (lbs./cwt.)	34.0	595	470	682	333
11. Small grain(bu.per hd.) (#/cwt.)	1.0	10	11	4	16
12. Commercial feed, lbs.	177	56	64	29	67
13. Total concentrates, lbs.	2144	661	545	715	416
14. Legume hay, lbs.	594	186	65	406	331
15. Other hay, lbs.	-	-	-	-	-
16. Total dry roughage, lbs.	594	186	65	406	331
17. Corn silage, lbs.	2108	734	-	-	1243
18. Grass or oat silage, lbs.	101	38	-	-	201
19. Total silage, lbs.	2209	772	-	-	1444
20. Pasture, days	11	4	23	-	-
Price of cattle per:					
	Head	Cwt.	Cwt.	Cwt.	Cwt.
21. Price paid	\$150.60	\$23.23	\$23.94	\$21.83	\$22.25
22. Price received	223.63	22.98	24.83	22.84	22.87
23. Price spread or gross margin	73.03	-.25	.89	1.01	.62
Cost and return per:					
	Lot		Lot	Lot	Lot
24. Total value produced	\$4862.35		\$2834.62	\$5104.53	\$2431.71
25. Total feed costs	3517.69		1397.56	3280.64	1542.97
26. Total return over feed	1344.66		1437.06	1823.89	888.74
Cost and return per:					
	Head	Cwt.	Cwt.	Cwt.	Cwt.
27. Value produced	\$73.03	\$22.96	\$26.49	\$25.00	\$24.39
28. Feed costs	52.95	16.87	13.06	16.07	15.48
29. Return over feed costs	20.08	6.09	13.43	8.93	8.91
30. Return over feed costs from price spread	-	-.02	1.66	2.16	1.52
31. Return over feed costs from feeding	-	6.11	11.77	6.77	7.39
32. Return per \$100 feed	-	140	203	156	158
33. Veterinary costs (3)	.94	.27	-	-	-
34. Commission, yardage and trucking (6)	6.44	2.16	2.79	-	-
35. Interest (5)	4.43	1.42	1.30	-	-
36. Building and equipment costs (5)	6.20	1.93	1.43	-	-
37. Total other costs (4)	1.46	.44	.06	-	-
38. Total listed costs	-	-	18.64	16.07	15.48
39. Return over listed costs	-	-	7.85	8.93	8.91

TABLE 7.--Cost and Returns from Short-fed Yearling Heifers, 1960-1961 (continued)

	<u>Individual lot numbers</u>				
	47	48	49	50	51
1.	116	90	78	40	45
2.	231	147	179	143	207
3.	-	14	-	-	-
4.	-	-	-	-	-
5.	504	696	639	759	632
6.	1020	999	943	974	956
7.	516	303	304	215	324
8.	2.23	2.06	1.70	1.50	1.57
9.	59820	27285	23715	8605	14565
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
10.	545	751	814	607	557
11.	3	-	-	-	44
12.	60	67	42	97	24
13.	608	818	856	704	625
14.	80	70	181	-	357
15.	-	-	-	-	-
16.	80	70	181	-	357
17.	395	660	506	2107	961
18.	-	-	-	103	-
19.	395	660	506	2210	961
20.	-	5	-	-	-
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
21.	\$24.99	\$22.00	\$22.29	\$23.50	\$25.00
22.	22.81	22.43	22.38	24.16	21.49
23.	-2.18	.43	.09	.66	-3.51
	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>	<u>Lot</u>
24.	\$12374.72	\$6390.02	\$5354.57	\$2278.62	\$2129.98
25.	8146.28	4854.20	4352.28	1947.11	2620.50
26.	4228.44	1535.82	1002.29	331.51	-490.52
	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>	<u>Cwt.</u>
27.	\$20.69	\$23.42	\$22.58	\$26.48	\$14.62
28.	13.61	17.79	18.35	22.63	17.99
29.	7.08	5.63	4.23	3.85	-3.37
30.	-2.12	.99	.20	2.32	-6.87
31.	9.20	4.64	4.03	1.53	3.50
32.	152	132	123	117	81
33.	.20	.04	.56	-	-
34.	.47	2.20	2.75	2.91	1.82
35.	1.02	1.18	1.49	2.11	-
36.	2.23	.67	1.59	3.74	-
37.	.23	.29	1.16	-	-
38.	17.76	22.17	25.90	31.39	19.81
39.	2.93	1.25	-3.32	-4.91	-5.19

TABLE 8.—Costs and Returns from Miscellaneous Lots of Cattle, 1960-1961

	Average of 19 lots		Individual lot numbers	
			52	53
<u>Number and weight of cattle fed:</u>				
1. Number of head bought	82		50	25
2. Days on farm	272		196	153
3. Days on pasture	19		30	-
4. Percent death loss	1.41		-	-
5. Average purchase wt., lbs.	540		369	592
6. Average sales wt., lbs.	998		689	981
7. Gain per head, lbs.	458		320	389
8. Gain per head per day, lbs.	1.75		1.63	2.54
9. Pounds of beef produced	40239		15995	9720
<u>Feed used per:</u>				
	Head	Cwt.	Cwt.	Cwt.
10. Corn (bu. per hd.) (lbs./cwt.)	46.1	561	329	249
11. Small grain (bu. per hd) (#/cwt.)	2.1	14	15	-
12. Commercial feed, lbs.	283	61	46	18
13. Total concentrates, lbs.	2934	636	390	267
14. Legume hay, lbs.	960	210	-	123
15. Other hay, lbs.	30	8	99	-
16. Total dry roughage, lbs.	990	218	99	123
17. Corn silage, lbs.	1863	459	625	823
18. Grass or oat silage, lbs.	914	238	-	-
19. Total silage, lbs.	2777	697	625	823
20. Pasture, days	19	5	9	-
<u>Price of cattle per:</u>				
	Head	Cwt.	Cwt.	Cwt.
21. Price paid	\$131.76	\$24.94	\$29.11	\$22.15
22. Price received	224.62	22.58	26.50	21.08
23. Price spread or gross margin	92.86	-2.36	-2.61	-1.07
<u>Cost and return per:</u>				
	Lot		Lot	Lot
24. Total value produced	\$8258.71		\$3757.21	\$1890.54
25. Total feed costs	6690.78		1801.85	855.82
26. Total return over feed	1567.93		1955.36	1034.72
<u>Cost and return per:</u>				
	Head	Cwt.	Cwt.	Cwt.
27. Value produced	\$92.86	\$20.32	\$23.49	\$19.45
28. Feed costs	76.26	16.97	11.26	8.80
29. Return over feed costs	16.60	3.35	12.23	10.65
30. Return over feed costs from price spread	-	-2.26	-3.01	-1.63
31. Return over feed costs from feeding	-	5.61	15.24	12.28
32. Return per \$100 feed costs	-	127	209	221
33. Veterinary costs (6)	1.17	.27	-	-
34. Commission, yardage and trucking (11)	7.18	1.51	.25	-
35. Interest (11)	5.68	1.25	1.13	-
36. Building and equipment costs (10)	3.33	.67	.08	-
37. Total other costs (8)	1.97	.40	.32	-
38. Total listed costs	-	-	13.04	8.80
39. Return over listed costs	-	-	10.45	10.65

TABLE 8.--Costs and Returns-Miscellaneous Lots of Cattle, 1960-1961 (continued)

	Individual lot numbers						
	54	55	56	57	58	59	60
1.	166	95	100	34	36	84	126
2.	337	298	313	244	248	277	316
3.	-	-	-	21	167	-	-
4.	-	2.1	-	-	2.8	-	.8
5.	466	411	429	790	558	577	387
6.	1150	962	1036	1343	859	1091	952
7.	684	551	607	553	301	514	565
8.	2.03	1.85	1.94	2.27	1.21	1.86	1.79
9.	113545	52365	60760	18810	10855	43180	71135
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
10.	419	444	572	701	272	495	635
11.	8	31	26	-	-	7	76
12.	78	48	54	59	38	73	41
13.	505	523	652	760	310	575	752
14.	176	262	165	126	11	459	243
15.	-	-	-	-	-	-	-
16.	176	262	165	126	11	459	243
17.	757	-	230	-	891	-	-
18.	88	-	-	-	-	-	-
19.	845	-	230	-	891	-	-
20.	-	-	-	4	55	-	-
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
21.	\$24.86	\$30.24	\$26.93	\$20.86	\$20.50	\$27.66	\$28.35
22.	23.88	23.80	23.09	20.40	19.51	23.85	23.40
23.	-.98	-6.44	-3.84	-.46	-.99	-3.81	-4.95
	Lot	Lot	Lot	Lot	Lot	Lot	Lot
24.	\$26346.24	\$9947.99	\$12385.19	\$3712.54	\$1918.72	\$8455.73	\$14230.66
25.	15329.80	6852.87	9027.17	2997.04	1545.69	6975.83	11899.05
26.	11016.44	3095.12	3358.02	715.50	373.03	1479.90	2331.61
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
27.	\$23.20	\$19.00	\$20.38	\$19.74	\$17.68	\$19.58	\$20.01
28.	13.50	13.09	14.86	15.94	14.24	16.15	16.73
29.	9.70	5.91	5.52	3.80	3.44	3.43	3.28
30.	-.68	-4.80	-2.71	-.66	-1.83	-4.27	-3.39
31.	10.38	10.71	8.23	4.46	5.27	7.70	6.67
32.	172	145	137	124	124	121	120
33.	-	-	-	.01	-	-	.18
34.	1.74	-	1.08	3.21	1.96	-	1.10
35.	1.10	-	.95	1.27	1.54	-	.70
36.	.90	-	.90	.28	.70	-	.60
37.	.31	-	.25	.45	-	-	.21
38.	17.55	13.09	18.04	21.16	18.44	16.15	19.52
39.	5.65	5.91	2.34	-1.42	-.76	3.43	.49

TABLE 8.--Costs and Returns from Miscellaneous Lots of Cattle, 1960-1961 (continued)

	Individual lot numbers			
	61	62	63	64
<u>Number and weight of cattle fed:</u>				
1. Number of head bought	117	76	50	162
2. Days on farm	248	293	317	276
3. Days on pasture	-	-	-	-
4. Percent death loss	-	-	-	-
5. Average purchase wt., lbs.	680	501	551	493
6. Average sales wt., lbs.	1185	1024	965	961
7. Gain per head, lbs.	505	523	414	468
8. Gain per head per day, lbs.	2.04	1.78	1.31	1.70
9. Pounds of beef produced	59115	39700	20865	75869
<u>Feed used per:</u>				
	Cwt.	Cwt.	Cwt.	Cwt.
10. Corn (lbs. per cwt.)	685	579	557	664
11. Small grain (lbs. per cwt.)	4	8	-	17
12. Commercial feed, lbs.	94	79	73	99
13. Total concentrates, lbs.	783	666	630	780
14. Legume hay, lbs.	151	252	309	26
15. Other hay, lbs.	51	-	-	-
16. Total dry roughage, lbs.	202	252	309	26
17. Corn silage, lbs.	558	403	967	198
18. Grass or oat silage, lbs.	-	-	-	395
19. Total silage, lbs.	558	403	967	593
20. Pasture, days	-	-	-	-
<u>Price of cattle per:</u>				
	Cwt.	Cwt.	Cwt.	Cwt.
21. Price paid	\$23.36	\$26.52	\$26.00	\$27.62
22. Price received	22.45	23.07	23.58	23.21
23. Price spread or gross margin	-.91	-3.45	-2.42	-4.41
<u>Cost and return per:</u>				
	Lot	Lot	Lot	Lot
24. Total value produced	\$12546.26	\$7845.44	\$4209.92	\$14083.33
25. Total feed costs	10813.06	6945.81	3891.93	13034.45
26. Total return over feed	1733.20	899.63	317.99	1048.88
<u>Cost and return per:</u>				
	Cwt.	Cwt.	Cwt.	Cwt.
27. Value produced	\$21.22	\$19.76	\$20.35	\$18.56
28. Feed costs	18.29	17.50	18.82	17.18
29. Return over feed costs	2.93	2.26	1.53	1.38
30. Return over feed costs from price spread	-1.23	-3.31	-3.23	-4.65
31. Return over feed costs from feeding	4.16	5.57	4.76	6.03
32. Return per \$100 feed costs	116	113	108	108
33. Veterinary costs	-	-	-	.49
34. Commission, yardage and trucking	-	-	-	1.52
35. Interest	-	-	-	1.84
36. Building and equipment costs	-	-	-	2.18
37. Total other costs	-	-	-	.90
38. Total listed costs	18.29	17.50	18.82	24.11
39. Return over listed costs	2.93	2.26	1.53	-5.55

TABLE 8.--Costs and Returns from Miscellaneous Lots of Cattle, 1960-1961 (continued)

	65	66	67	68	69	70
1.	45	170	130	31	21	43
2.	343	270	246	495	139	157
3.	-	-	-	135	-	-
4.	4.4	2.9	-	6.5	5.0	2.3
5.	443	579	519	513	739	668
6.	914	963	927	980	1007	973
7.	471	384	408	467	268	305
8.	1.37	1.42	1.66	.94	1.93	1.94
9.	21165	65190	53015	14490	5625	13140
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
10.	604	617	661	738	653	789
11.	27	38	3	-	-	-
12.	77	109	55	14	53	43
13.	708	764	719	752	706	832
14.	306	229	207	200	640	114
15.	-	-	-	-	-	-
16.	306	229	207	200	640	114
17.	850	-	405	-	1956	61
18.	-	1503	-	883	53	1598
19.	850	1503	405	883	2009	1659
20.	-	-	-	29	-	-
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
21.	\$25.23	\$24.63	\$27.60	\$24.44	\$20.00	\$17.81
22.	22.85	24.18	23.20	21.42	21.09	18.45
23.	-2.38	-.45	-4.40	-3.02	1.09	.64
	Lot	Lot	Lot	Lot	Lot	Lot
24.	\$4362.75	\$15304.53	\$9329.68	\$2624.58	\$1355.26	\$2607.65
25.	4127.00	14666.75	9262.55	2694.94	1427.40	2974.78
26.	235.75	637.78	67.13	-70.36	-72.14	-367.13
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
27.	\$20.61	\$23.48	\$17.60	\$18.11	\$24.09	\$19.84
28.	19.49	22.50	17.47	18.60	25.38	22.64
29.	1.12	.98	.13	-.49	-1.29	-2.80
30.	-2.24	-.70	-5.60	-3.31	+3.00	+1.39
31.	3.36	1.68	5.73	2.82	-4.29	-4.19
32.	106	104	101	97	95	88
33.	.14	.61	.17	-	-	-
34.	1.41	1.97	1.58	-	.73	-
35.	1.29	1.88	1.86	-	.18	-
36.	.21	.46	.36	-	-	-
37.	.61	.11	-	-	-	-
38.	23.15	27.53	21.44	18.60	26.29	22.64
39.	-2.54	-4.05	-3.84	-.49	-2.20	-2.80

TABLE 9.--A Four-year Comparison of Feeder Cattle Costs and Returns

	Long-fed Calves			
	1957-58	1958-59	1959-60	1960-61
	Average 25 lots	Average 39 lots	Average 83 lots	Average 28 lots
Number and weight of cattle fed:				
1. Number of head bought	89	69	94	77
2. Days on farm	321	313	326	326
3. Days on pasture	13	11	11	7
4. Percent death loss	.9	1.2	1.0	.9
5. Average purchase weight, lbs.	398	418	433	410
6. Average sales weight, lbs.	966	974	1007	943
7. Gain per head, lbs.	568	556	574	533
8. Gain per head per day, lbs.	1.8	1.8	1.77	1.63
9. Pounds beef produced per lot	51393	38229	55324	42549
Feed used per 100 lbs. gain:				
10. Corn, lbs.	489	529	520	516
11. Small grain, lbs.	26	32	12	18
12. Commercial feed, lbs.	40	59	59	53
13. Total concentrates, lbs.	555	620	591	587
14. Legume hay, lbs.	209	184	158	273
15. Other hay and stover, lbs.	14	11	10	46
16. Total dry roughage, lbs.	223	195	168	319
17. Silage, lbs.	353	425	395	326
18. Pasture days	2	2	1	2
Price of cattle:				
19. Price paid per 100 pounds	\$24.51	\$33.51	\$29.60	\$26.50
20. Price received per 100 pounds	24.97	25.09	23.81	22.89
21. Price spread, per 100 pounds	.46	-8.42	-5.79	-3.61
Cost and returns per 100 lbs. gain:				
22. Value produced	\$25.46	\$18.62	\$19.44	\$20.13
23. Feed costs	13.93	15.67	14.65	14.99
24. RETURN OVER FEED COSTS	\$11.53	\$ 2.95	\$ 4.79	\$ 5.14
25. Return over feed cost from price spread	\$.49	\$-6.47	\$-4.37	\$-2.75
26. Return over feed cost from feeding	11.04	9.42	9.16	7.89
27. Return per \$100 feed cost	\$189.00	\$123.00	\$138.00	\$138.00
28. Estimated costs other than feed and labor ^{1/}	2.74*	\$ 2.79*	\$ 3.16*	\$ 3.03*
29. Estimated return to labor & management	\$ 8.79	\$.16	\$ 1.63	\$ 2.11
Returns to labor:				
30. Estimated hours of labor**	1.52	1.59	1.40	1.48
31. Estimated return per hour of labor	\$ 5.78	\$.10	\$ 1.16	\$ 1.43
32. Estimated return per head to labor & mgt.	\$49.93	\$.89	\$ 6.66	\$ 7.62

^{1/}Hasbargen, P. R., and Pond, G. A., "Planning Farms for Increased Profits," University of Minnesota Station Bulletin 445, December, 1957.

*Interest charge adjusted according to purchase value and time period lot was held.

**Adjusted for size of lot, number of days on farm and gain per head.

TABLE 9.--A Four-year Comparison of Feeder Cattle Costs and Returns (continued)

	Long-fed yearlings				Short-fed yearlings and two-year olds			
	1957-58 Average 16 lots	1958-59 Average 8 lots	1959-60 Average 17 lots	1960-61 Average 21 lots	1957-58 Average 30 lots	1958-59 Average 20 lots	1959-60 Average 40 lots	1960-61 Average 21 lots
1.	63	67	66	78	41	58	80	61
2.	309	286	306	292	169	178	185	185
3.	38	23	23	29	12	13	8	8
4.	1.1	.5	.7	1.2	.5	.5	.4	1.0
5.	608	621	620	596	730	697	689	691
6.	1094	1070	1157	1061	1088	1066	1080	1042
7.	486	449	537	465	358	369	391	351
8.	1.6	1.6	1.76	1.63	2.1	2.1	2.17	1.90
9.	32545	27608	36031	37649	14437	22209	31273	22535
10.	475	627	600	598	668	603	591	623
11.	12	24	6	9	10	12	10	8
12.	24	43	53	59	56	68	51	58
13.	<u>511</u>	<u>694</u>	<u>659</u>	<u>666</u>	<u>734</u>	<u>683</u>	<u>652</u>	<u>689</u>
14.	212	363	170	226	225	191	175	222
15.	22	6	35	15	15	48	15	6
16.	<u>234</u>	<u>369</u>	<u>205</u>	<u>241</u>	<u>240</u>	<u>239</u>	<u>190</u>	<u>228</u>
17.	601	202	533	611	458	340	375	824
18.	7	5	5	7	3	-	2	2
19.	\$22.63	\$28.93	\$28.14	\$24.13	\$24.20	\$27.42	\$25.49	\$22.11
20.	25.54	26.31	25.30	22.24	26.05	25.92	24.81	21.81
21.	2.91	-2.62	-2.84	-1.89	1.85	-1.50	-.68	-.30
22.	\$28.70	\$23.77	\$21.97	\$19.86	\$30.09	\$22.74	\$23.84	\$21.45
23.	15.32	18.26	16.72	17.68	17.00	16.98	15.49	17.93
24.	<u>\$13.38</u>	<u>\$ 5.51</u>	<u>\$ 5.25</u>	<u>\$ 2.18</u>	<u>\$13.09</u>	<u>\$ 5.76</u>	<u>\$ 8.35</u>	<u>\$ 3.52</u>
25.	\$ 3.16	\$-2.54	\$-3.33	\$-2.37	\$ 4.03	\$-3.18	\$ -.97	\$ -.36
26.	10.22	8.05	8.58	4.55	9.06	8.94	9.31	3.88
27.	\$196.00	\$135.00	\$137.00	\$117.00	\$187.00	\$135.00	\$161.00	\$126.00
28.	\$ 3.22*	\$ 3.10*	\$ 3.38*	\$ 3.46*	\$ 3.21*	\$ 3.31*	\$ 3.33*	\$ 3.28*
29.	\$10.16	\$ 2.41	\$ 1.87	\$-1.28	\$ 9.88	\$ 2.45	\$ 5.02	\$.24
30.	1.19	1.16	1.17	1.37	1.33	1.23	1.06	1.36
31.	\$ 8.54	\$ 1.00	\$ 1.60	\$ -.93	\$ 7.43	\$ 1.99	\$ 4.74	\$.18
32.	\$49.38	\$ 4.49	\$10.04	\$-4.32	\$35.37	\$ 7.34	\$18.52	\$.63

Table 9 presents a four-year comparison of feeder cattle costs and returns. The estimated returns per hour of labor and estimated returns to management and labor per head indicate a wide variation in returns over the four feeding periods, 1957-1961.

COMPARISON OF RETURNS FROM PRICE SPREAD AND FROM FEEDING FOR THE DIFFERENT CATTLE FEEDING PROGRAMS

The data in Table 10 serve to illustrate the comparative importance of price spread and feed costs in determining cattle feeding profits for cattle of different beginning weights and different lengths of feeding period, as are presented by these lots of long-fed steer calves, long-fed heifer calves, long-fed yearling steers, short-fed yearling steers and short-fed yearling heifers.

Returns from feeding are of most importance in the calf feeding program and become relatively less important for long-fed yearlings and least in importance for short-fed yearlings and two-year-olds. Calves are purchased at lighter weights, are fed for a longer period for more gain in weight and put on gain at less cost per pound.

The return from price spread is of most importance for short-fed yearlings and two-year-olds because of their higher initial weight and becomes relatively less important as the purchase weights decrease and the gain in weight increases with the younger and lighter calves. Price spread per 100 pounds for the 1960-1961 lots is greatest for the long-fed steer calves in comparison with long-fed yearlings and short-fed yearlings and two-year-olds. Effects of a high purchase weight on returns from price spread and returns over feed costs are noted in comparing long-fed yearlings with short-fed yearlings. The price spread per 100 pounds is \$-1.66 for the long-fed yearling steers and \$-.50 for the short-fed yearling steers while the short-fed yearling heifers had \$-.25 price spread.

These illustrations serve to emphasize that low feed cost is an important determinant of profit for all types of cattle feeding programs but comparatively more so for calves or light weight cattle. Price spread becomes relatively more important for cattle that are purchased at heavier weights. The higher the purchase weight in relation to the selling weight, the more important price spread becomes. The buying and selling phase of the heavy cattle feeding program becomes extremely important because price spread is one of the main factors determining profits.

LABOR REQUIREMENTS FOR FEEDING CATTLE

The average labor requirements for feeding cattle was determined in a study conducted during the 1956-57 cattle feeding season.^{2/} These labor requirements for three feeding systems are presented in Table 11.

^{2/} Johnson, R. G. and Nodland, T. R., "Labor Used in Cattle Feeding," Station Bulletin 451, University of Minnesota Agricultural Experiment Station, March, 1960, pp. 12-15.

TABLE 10.--- Returns from Price Spread and From Feeding, 1960-1961

	Long-fed				Short-fed	
	Steer calves 7 lots	Heifer calves 14 lots	Yearling steers 12 lots	Misc. 19 lots	Yearling steers 10 lots	Yearling heifers 8 lots
Price spread per 100 lbs.	\$-5.36	\$-2.72	\$-1.66	\$-2.36	\$ -.50	\$ -.25
Return over feed cost from price spread	-3.09	-2.43	-2.15	-2.26	-1.02	-.02
Return over feed cost from feeding	9.14	6.89	4.46	5.61	2.88	6.11
Return over feed cost per 100 pounds gain	6.05	4.46	2.31	3.35	1.86	6.09
Average purchase weight, lbs.	396	409	604	540	731	651
Gain per head, lbs.	652	477	475	458	383	323
Gain per head per day, lbs.	1.82	1.48	1.65	1.75	1.92	1.79

TABLE 11.--Hours of Labor, Total per Head and per 100 Pounds Gain in Weight for Three Feeding Programs

	Number of head in the lot						Per 10 added
	20	40	60	80	100	120	
(hours of labor)							
<u>Long-fed calves (550 lbs. gain)</u>							
Total for 47 wks.	319.01	423.33	525.97	630.29	732.98	835.67	51.67
Per head	15.95	10.58	8.77	7.88	7.33	6.96	
Per 100 lbs. gain	2.90	1.92	1.59	1.43	1.33	1.26	
<u>Long-fed yearlings (500 lbs. gain)</u>							
Total for 36 wks.	221.85	293.70	364.50	436.35	507.09	577.83	35.60
Per head	11.09	7.34	6.08	5.45	5.07	4.82	
Per 100 lbs. gain	2.22	1.47	1.22	1.09	1.01	.96	
<u>Short-fed yearlings (425 lbs. gain)</u>							
Total for 27 wks.	163.03	228.76	293.97	359.70	424.67	489.64	32.66
Per head	8.15	5.72	4.90	4.50	4.25	4.08	
Per 100 lbs. gain	1.92	1.34	1.15	1.06	1.00	.96	

These data are for cattle fed twice a day using conventional hand feeding methods. Included is the labor for hay, grain, and silage feeding; bedding, watering and observation, care and treatment of sick animals, feed grinding, equipment repair, buying and selling, and manure removal using a tractor manure loader.

The three cattle feeding systems upon which the labor requirements are based are typical of those used for long-fed calves, long-fed yearlings, short-fed yearlings and two-year-olds as presented in this report. These three cattle feeding systems are described in the following paragraphs.

Long-fed calves on a liberal roughage ration: Good to choice steer calves weighing about 400 pounds are purchased in the fall. They are fed a limited amount of grain and good hay for the first four weeks. This is followed by a full feed of silage, limited grain, and hay for the next 22 weeks. For the last 21 weeks they are fed a full feed of grain and some hay. In the 47 weeks on feed, these cattle should gain about 550 pounds; they are sold in the early fall at approximately 950 pounds.

Long-fed yearling steers fed a liberal roughage ration: Good to choice yearling steers weighing about 650 pounds are purchased in the fall. They are placed on corn-stalk pasture for the first six weeks. This is followed by a full feed of silage, and limited grain and hay for the next 12 weeks. For the last 18 weeks a full feed of grain with hay is fed. In the 36 weeks on feed these cattle should gain about 500 pounds; they are sold in the early summer at approximately 1150 pounds.

Short-fed yearling steers fed a liberal grain ration: Good to choice yearling steers weighing about 700 pounds are purchased in the fall and are put on cornstalk pasture for the first three weeks. This is followed by a full feed of grain with hay for the next 24 weeks. In the 27 weeks on feed these cattle should gain about 425 pounds; they are sold in the late spring at approximately 1125 pounds.

For all three cattle feeding systems the labor requirements per head and per 100 pounds gain in weight decrease when larger numbers of cattle are fed. These economies of labor are obtained by spreading the fixed time needed in doing each task over a greater number of animals. The lower labor requirements per 100 pounds gain for the yearlings than for the calves is due mainly to the higher rate of gain for the yearlings. For small lots of cattle the short-fed yearlings require less labor per 100 pounds of gain than the long-fed yearlings. This difference is largely explained by the fact that for the long-fed yearlings the feeding program includes silage while for the short-fed yearlings silage is not fed. Silage feeding requires a large amount of time per head for small lots and therefore increases the labor requirements.

ESTIMATED RETURNS OVER ALL COSTS PER HOUR OF LABOR

The return over feed costs does not give the complete picture as to returns for feeding cattle. In Table 12 is presented the estimated return to labor and management per 100 pounds gain in weight and the return per hour of labor for each of the feeding programs in 1960-1961, except for the miscellaneous group.

Interest is computed at 6.5 percent of the purchase value times the fraction of the year the cattle were on the farm. Power, equipment, shelter and miscellaneous cash costs are average costs based on detailed cost studies.^{3/} This includes fixed costs for shelter and equipment, such as depreciation.

The hours of labor spent per 100 pounds gain is based on the detailed labor study carried out during the 1956-57 feeding season, as reported in Table 11. Labor requirements are reported on the basis of 80 head in a lot for all feeding systems.

The return per hour of labor is the return for each hour spent to pay for the labor used and give a return for management. The estimated average return per hour in 1960-1961 for the five feeding programs was \$.65.

The costs and returns upon which the table is based will vary from farm to farm and from year to year. The individual feeder can determine his interest and other costs for his lot and subtract this from his return over feed costs to get his return for labor and management. Dividing this by the number of hours spent per 100 pounds gain will give the return per hour of labor.

^{3/}

Hasbargen, P. R., and Pond, G. A., "Planning Farms for Increased Profits," University of Minnesota Station Bulletin No. 445, December, 1957.

TABLE 12.---Estimated Returns per Hour of Labor from Feeder Cattle
(Adjusted to lot size of 80 head)

	NUMBER OF LOTS				
	7	14	12	10	8
<u>Cost and return per 100 pounds gain:</u>					
Value produced	\$20.15	\$19.81	\$19.96	\$20.34	\$22.96
Feed costs	14.10	15.35	17.65	18.48	16.87
Interest at 6.5%	1.10	1.24	1.56	1.50	1.49
Miscellaneous cash	.50	.50	.50	.50	.50
Power	.40	.40	.40	.40	.40
Equipment	.30	.30	.30	.30	.30
Shelter	.65	.65	.65	.65	.65
	<u>\$17.05</u>	<u>\$18.44</u>	<u>\$21.06</u>	<u>\$21.83</u>	<u>\$20.21</u>
TOTAL					
Return to labor and management	\$ 3.10	\$ 1.37	\$-1.10	\$-1.49	\$ 2.75
Hours of labor spent*	1.31	1.59	1.32	1.24	1.33
Return per hour of labor	\$ 2.37	\$.86	\$ -.83	\$-1.20	\$ 2.07
Number of days on farm	358	324	291	200	180
Gain per head, lbs.	652	477	475	383	323

*Adjusted for number of days on farm and the gain per head.

DETERMINING PROFIT PROSPECTS

The selling price required to cover all costs (feed, interest, buildings, equipment and miscellaneous cash costs) and provide a return for labor and management depends on three main factors. The factors are: (1) the level of feeder cattle prices; (2) the cost of putting on a pound of gain; and (3) the weight and type of cattle fed.

The level of feeder cattle prices in the future is difficult to estimate. In making an estimate number of cattle on feed and demand prospects for the various classes of feeder cattle are factors to be considered. Market outlook publications are sources of this type of information.

The cost of putting on a pound of gain depends upon the price of feeds, the weight and finish to which animals are fed, the percent death loss, the efficiency of feed utilization and age of the animals, and the ability of the farmer as a cattle feeder.

Profit prospects for the coming feeding season can be calculated by using the following work sheet. 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. For farmers who do not have feed records the averages shown in Tables 13 and 14 of this report will provide data which can be used.

TABLE 13.--Feed Requirements Based on 1953-59 Lot Averages

	Long-fed Calves	Long-fed yearlings	Short-fed two-year-olds
Purchase weight	400 lbs.	622 lbs.	722 lbs.
Gain	550 lbs.	500 lbs.	340 lbs.
<u>Requirements per head:</u>			
Corn (bu.)	48	47	40.3
Small grains (bu.)	3.8	1.8	2.4
Supplement (lbs.)	244	223	215
All hay (tons)	.71	.77	.52
Silage (tons)	1.79	1.75	1.06
Pasture (days)	15	41	21
Labor (hours)	(See Table 11 for labor requirements by size of lot)		
Interest	6.5%	6.5%	6.5%
Miscellaneous costs	\$1.10 per cwt.	\$1.10 per cwt.	\$1.10 per cwt.
Overhead, shelter and equipment costs	\$.75 per cwt.	\$.75 per cwt.	\$.75 per cwt.

STEP 1. Determine Cost of Producing Finished Animal^{4/}

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

(b) Feed and other costs per head:

<u>Feed Cost</u>	<u>Amount Fed</u>	<u>Price</u>	<u>Cost</u>
Corn (bu.)	_____	_____	_____
Small grain (bu.)	_____	_____	_____
Supplement (lbs.)	_____	_____	_____
All hay (tons)	_____	_____	_____
Silage (tons)	_____	_____	_____
Pasture (days)	_____	_____	_____
Total feed cost			= \$ _____

Estimated other costs:

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

Interest \$ _____ (original cost per head x _____ (percent)) = \$ _____
(interest rate for

Miscellaneous costs^{5/} _____ (lbs. gain) x \$1.10 (per cwt.) = \$ _____
number of months on feed)

Other overhead costs for equipment and shelter:
_____ (lbs. gain) x \$.75 (per cwt.) = \$ _____

(c) Total cost per head = \$ _____

STEP 2. Determine selling price you need to cover costs

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

STEP 3. Your estimated sale value of steer:

_____ cwt. x \$ _____ Your estimated price = \$ _____

PROFIT PER HEAD = \$ _____

^{4/} Routh, Hal, Thomas, Kenneth H., and Johnson, Roger, "How Does the Level of Feeder Prices Affect Cattle Feeding Profits?" Report, Agricultural Extension Service, University of Minnesota, September, 1957.

^{5/} Adapted from Hasbargen, P. R., and Pond, G. A., "Planning Farms for Increased Profits," University of Minnesota Station Bulletin 445, December, 1957.

Examples of Various Feeding Programs

Long-fed steer calves--good to choice grade

STEP 1. Determine cost of producing finished animal

(a) Original cost per head = 400 lbs. @ \$27.00 per cwt. = \$108.00

(b) Feed and other costs per head: 550 lbs. gain

<u>Feed Cost</u>	<u>Amount Fed</u> ^{6/}	<u>Price</u>	<u>Cost</u>
Corn (bu.)	48 bu.	\$.94	\$45.12
Small grains (bu.)	3.8 bu.	.60	2.28
Supplement (lbs.)	244 lbs.	.04	9.76
All hay (tons)	.71 tons	19.50	13.85
Silage (tons)	1.79 tons	6.75	12.08
Pasture (days)	15 days	.083	1.25

TOTAL FEED COST = \$ 84.34

Estimated other costs

Labor cost 7.88 hours per head x \$1.50 per hour
(80 head basis) = \$ 11.82

Interest: \$108.00 (original cost per head) x 6.5(percent)
(number of days on farm - 329)..... = \$ 6.33

Miscellaneous costs: 550 lbs. gain x \$1.10 per cwt.
(includes only variable costs).... = \$ 6.05

Other overhead costs for equipment and shelter:
(550 lbs. gain x \$.75 per cwt.) ... = \$ 4.13

(c) Total cost per head = \$220.67

STEP 2. Determine selling price farmer must receive to cover all costs:

$$\frac{\text{Total cost per head}}{\text{sale weight}} = \frac{\$220.67}{950} = \$ 23.23$$

^{6/} See Table 13 for feed requirements.

TABLE 14.--Feed Requirements Based on 1960-1961 Lot Averages

	NUMBER OF LOTS				
	7	14	12	10	8
Purchase weight					
Gain in weight	396	324	604	731	651
Days on farm	652	477	475	383	323
Gain per head per day	358	324	291	200	180
	1.82	1.48	1.65	1.92	1.79
<u>Requirements per head:</u>					
Corn (bu.)	57.6	43.9	51.2	45.7	34
Small grain (bu.)	1.8	2.4	1.6	1.2	1.0
Supplement (lbs.)	345	220	256	247	177
All hay (tons)	.49	1.08	.59	.42	.30
Silage (tons)	1.56	.45	1.44	1.17	1.10
Pasture (days)	-	14	24	7	11
Labor (hours)	8.47	8.69	6.41	4.94	4.59
Interest (percent)	6.5	6.5	6.5	6.5	6.5
<u>Requirements per cwt.:</u>					
Miscellaneous cost	\$1.10	\$1.10	\$1.10	\$1.10	\$1.10
Overhead cost for shelter and equipment	\$.75	\$.75	\$.75	\$.75	\$.75