



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.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

FEEDER CATTLE
COSTS AND RETURNS

1954 - 1955

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

Report No. 228
Department of Agricultural Economics
University Farm
St. Paul 1, Minnesota
September, 1956

600/9/56

FEEDER CATTLE COSTS AND RETURNS
1954-1955

T. R. Nodland, R. B. Zoller and N. A. Dorow

| | Page |
|---|------|
| Introduction | 1 |
| Prices | 2 |
| Feeding Data Presented | 3 |
| Numbers and Weights of Cattle Fed | 3 |
| Feed Costs and Returns for Long-Fed Calves, 1954-55 | 4 |
| Feed Costs and Returns for Long-Fed Yearlings, 1954-55 | 8 |
| Feed Costs and Returns for Short-Fed Yearlings and Two-Year-Olds, 1954-55 | 12 |
| Costs and Returns | 16 |
| Comparative Analysis of Price Spread, Feed Costs, and Returns | 16 |
| Comparison of Returns from Price Spread and from Feeding for the Different Cattle Feeding Programs | 20 |

INTRODUCTION

Returns from cattle feeding fluctuate from year to year and vary from farm to farm. Variation in marketing margins and in feed costs are the major factors accounting for the wide difference in returns from beef cattle feeding programs. This is emphasized by this study of costs and returns for 62 lots of cattle fed out on southern Minnesota farms in the 1954-55 feeding season. This information was obtained from records kept by members of the Southeastern and Southwestern Minnesota Farm Management Services. The purpose of this report is to make available data regarding the average results from feeding operations and also to provide examples of individual lot records for comparison and study.

The data presented cover individual lots of cattle from purchase as feeders to sale as fat cattle. Three different feeding programs are represented (1) long-fed calves, (2) long-fed yearlings, and (3) short-fed yearlings and two-year-olds. Cattle on feed 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 500 pounds or less per head at purchase are classed as calves.

The variation in average costs and returns among these three classes of cattle was much less than the variations in the same items within each group. The comparison of the lots above and below average returns on page 18 indicate the differences and similarities between the high profit and low profit lots.

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

PRICES

The average yearly prices at which the principal feeds used in cattle feeding were charged on the farm studied are shown in Table 1 for 1954 and 1955. The farm raised feeds are valued at average prices on the farm. Purchased feeds are listed at the prices 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

| | 1954 | 1955 |
|--------------------------------|---------|---------|
| Alfalfa hay, per ton | \$17.00 | \$18.00 |
| Timothy or brome hay, per ton | 9.80 | 10.40 |
| Hay silage, per ton | 6.05 | 6.35 |
| Corn silage, per ton | 5.75 | 6.00 |
| Ear corn, per bu. | 1.35 | 1.23 |
| Oats, per bu. | .70 | .61 |
| Linseed oil meal, per 100 lbs. | 4.20 | 4.10 |
| Soybean oil meal, per 100 lbs. | 5.17 | 3.60 |

Monthly prices of stocker and feeder cattle at South St. Paul from January, 1954, through April, 1956, are shown in Figure 1. Southern Minnesota farmers secure their feeder cattle from a variety of sources but the South St. Paul quotations are reasonably representative of price trends during this period.

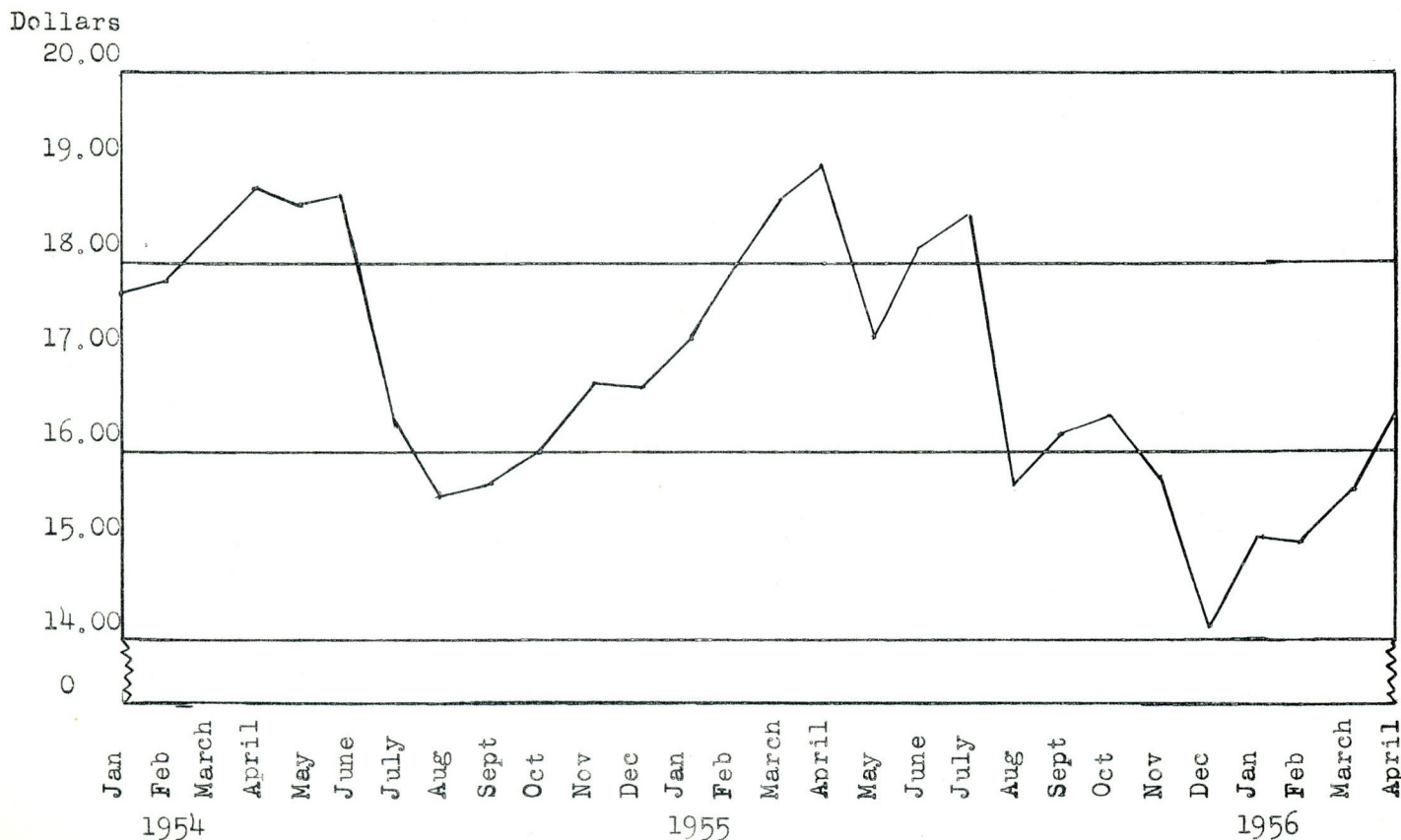


Figure 1. Average Monthly Prices per 100 lbs. of Stockers and Feeders, All Weights, South St. Paul, January, 1954-April, 1956. (Compiled from Livestock Market News Statistics and Related Data. USDA, PMA 1954-1956.)

FEEDING DATA PRESENTED

The number and weight of cattle fed, the quantities of feed used and the costs and returns from feeding operations for the 1954-55 feeding season are shown in the following pages. In Table 3 is the report on the long-fed calves, in Table 4 for the long-fed yearlings, and in Table 5 for the short-fed yearlings and two-year-olds. A comparison of this data for the last three years is given in Table 6.

The comparison of the factors affecting the costs and returns for the lots with above average return and those with below average return for each of the three types of feeding operations is given in Table 7 on page 18. A comparative analysis of price spread, feed costs and returns for the lots with above average return and those with below average return includes Tables 8 and 9. A comparison of returns from price spread and from feeding for the different cattle feeding programs concludes the report.

NUMBERS AND WEIGHTS OF CATTLE FED

The individual lots of cattle for the 1954-55 feeding period included a wide range as to numbers per lot, gain per head and daily gain. The data in Table 2 indicate the range from high to low for each item and also give a comparison between the calves, long-fed yearlings and the short-fed yearlings and two-year-olds.

Table 2. Range in Numbers and Weights for Individual Lots

| | Long-Fed Calves | | | Long-Fed Yearlings | | | Short-Fed Yearlings and two-year-olds | | |
|--------------------------------|-----------------|------|-----|--------------------|------|-----|--|------|-----|
| | Avg. | High | Low | Avg. | High | Low | Avg. | High | Low |
| Number of head in lot | 64 | 204 | 18 | 58 | 190 | 21 | 48 | 306 | 10 |
| Average purchase weight | 410 | 476 | 325 | 621 | 763 | 508 | 746 | 921 | 556 |
| Average sale weight | 946 | 1165 | 734 | 1123 | 1300 | 899 | 1083 | 1287 | 807 |
| Average gain in weight per hd. | 537 | 719 | 409 | 502 | 783 | 346 | 338 | 493 | 166 |
| Average daily gain per head | 1.7 | 2.0 | 1.2 | 1.6 | 2.2 | 1.2 | 2.0 | 2.5 | 1.2 |

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. Death losses occurred in 21 of the 62 lots. In a few of the cases it was the major factor limiting the profits for the lot.

Table 3. Long-Fed Calves, 1954-55

| | Average of 29 lots | Individual lot numbers | | | | |
|---|--------------------------|------------------------|-----------|-----------|-----------|-----------|
| | | 1 | 2 | 3 | 4 | 5 |
| <u>No. and Wt. of Cattle Fed:</u> | | | | | | |
| 1. Number of head bought | 64 | 21 | 45 | 78 | 51 | 68 |
| 2. Days on farm | 324 | 404 | 260 | 286 | 290 | 310 |
| 3. Percent death loss | 1.1 | 0 | 0 | 1.3 | 0 | 1.5 |
| 4. Avg. purchase wt. lbs. | 410 | 426 | 398 | 402 | 397 | 450 |
| 5. Avg. sale wt. lbs. | 947 | 1089 | 854 | 866 | 824 | 990 |
| 6. Gain per head, lbs. | 537 | 663 | 456 | 464 | 427 | 540 |
| 7. Gain per head per day, lbs. | 1.7 | 1.6 | 1.8 | 1.6 | 1.5 | 1.7 |
| 8. Lb. beef produced per lot | 34212 | 13920 | 20525 | 35360 | 21760 | 35765 |
| <u>Feed Used per 100 lbs. Gain</u> | | | | | | |
| 9. Corn, lb. | 515 | 475 | 323 | 418 | 525 | 428 |
| 10. Small grain, lb. | 20 | - | 34 | 11 | 3 | 18 |
| 11. Commercial feed, lb. | 47 | 42 | 69 | 64 | 38 | 37 |
| 12. Total concentrates, lb. | 582 | 517 | 426 | 493 | 566 | 483 |
| 13. Legume hay, lb. | 199 | 298 | 195 | 147 | 124 | 94 |
| 14. Other hay and stover, lb. | 23 | 31 | 7 | - | - | 13 |
| 15. Total dry roughage, lb. | 222 | 329 | 202 | 147 | 124 | 107 |
| 16. Silage, lb. | 395 | - | 599 | 79 | 565 | 716 |
| 17. Pasture days | 9 | 12 | - | 5 | 8 | 5 |
| 18. Total days on pasture | 50 | 82 | - | 21 | 35 | 26 |
| <u>Prices of Cattle</u> | | | | | | |
| 19. Price paid per 100 lbs. | \$19.15 | \$20.50 | \$18.51 | \$18.20 | \$17.09 | \$20.78 |
| 20. Price received per 100 lbs. | 20.71 | 26.35 | 20.82 | 20.23 | 20.94 | 21.61 |
| 21. Price spread, per 100 lbs. | 1.56 | 5.85 | 2.31 | 2.03 | 3.85 | .83 |
| <u>Cost and Returns per Lot</u> | | | | | | |
| 22. Total value produced | \$7431.22 | \$4192.09 | \$4686.57 | \$7791.98 | \$5336.47 | \$7988.17 |
| 23. Total feed cost | 5873.52 | 2437.32 | 2927.05 | 4901.50 | 3640.91 | 5324.17 |
| 24. Total return over feed cost | 1557.70 | 1754.77 | 1759.52 | 2890.48 | 1695.56 | 2664.00 |
| <u>Cost and Returns per 100 lbs. Gain</u> | | | | | | |
| 25. Value produced | \$22.00 | \$30.12 | \$22.83 | \$22.04 | \$24.52 | \$22.33 |
| 26. Feed costs | 17.63 | 17.51 | 14.26 | 13.86 | 16.73 | 14.88 |
| 27. RETURN OVER FEED COST | 4.37 | 12.61 | 8.57 | 8.18 | 7.79 | 7.45 |
| 28. Return over feed cost from price spread | 1.30 | 3.77 | 2.01 | 1.81 | 3.58 | .72 |
| 29. Return over feed cost from feeding | 3.07 | 8.84 | 6.56 | 6.37 | 4.21 | 6.73 |
| 30. Return per \$100 feed cost | 127 | 172 | 160 | 159 | 146 | 150 |
| 31. Est. costs other than feed | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 |
| 32. Estimated net return | -.12 | 8.12 | 4.08 | 3.69 | 3.30 | 2.96 |

Table 3. Long-Fed Calves, 1954-55 (continued)

| | Individual Lot Numbers | | | | | | | | | |
|-----|------------------------|----------------|----------------|----------------|-----------------|----------------|----------------|----------------|----------------|----------------|
| | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 1. | 204 | 40 | 31 | 39 | 140 | 56 | 35 | 18 | 81 | 57 |
| 2. | 354 | 320 | 298 | 264 | 231 | 341 | 512 | 299 | 335 | 310 |
| 3. | 0.5 | 2.5 | 0 | 0 | 0 | 3.6 | 0 | 0 | 0 | 0 |
| 4. | 388 | 395 | 432 | 451 | 475 | 356 | 415 | 467 | 406 | 392 |
| 5. | 980 | 949 | 841 | 887 | 946 | 951 | 1110 | 1031 | 923 | 899 |
| 6. | 592 | 554 | 409 | 436 | 471 | 595 | 695 | 564 | 517 | 507 |
| 7. | 1.7 | 1.7 | 1.4 | 1.7 | 2.0 | 1.7 | 1.4 | 1.9 | 1.5 | 1.6 |
| 8. | 119822 | 21215 | 12700 | 16995 | 65935 | 31410 | 24360 | 10160 | 41860 | 28934 |
| 9. | 458 | 428 | 518 | 515 | 481 | 499 | 547 | 494 | 559 | 480 |
| 10. | 8 | 10 | - | - | 15 | 75 | 2 | 11 | 10 | 9 |
| 11. | 44 | 8 | 35 | 53 | 60 | 71 | 56 | 21 | 12 | 56 |
| 12. | <u>510</u> | <u>446</u> | <u>553</u> | <u>568</u> | <u>556</u> | <u>645</u> | <u>605</u> | <u>526</u> | <u>581</u> | <u>545</u> |
| 13. | 67 | 290 | 148 | 174 | 273 | 72 | 330 | 191 | 121 | 28 |
| 14. | 32 | - | 41 | 20 | - | - | - | 65 | 33 | - |
| 15. | <u>99</u> | <u>290</u> | <u>189</u> | <u>194</u> | <u>273</u> | <u>72</u> | <u>330</u> | <u>256</u> | <u>154</u> | <u>28</u> |
| 16. | 646 | 559 | 866 | - | 480 | - | 41 | 1181 | 387 | 463 |
| 17. | 9 | 25 | - | 14 | 14 | - | 23 | 9 | 14 | 24 |
| 18. | 54 | 138 | - | 63 | 68 | - | 161 | 52 | 72 | 120 |
| 19. | \$19.92 | \$20.50 | \$17.50 | \$17.05 | \$17.81 | \$19.47 | \$18.02 | \$17.28 | \$21.39 | \$18.12 |
| 20. | 21.19 | 22.04 | 20.70 | 19.25 | 21.31 | 20.64 | 22.93 | 20.81 | 21.80 | 20.23 |
| 21. | 1.27 | 1.54 | 3.20 | 2.20 | 3.50 | 1.17 | 4.91 | 3.53 | .41 | 2.11 |
| 22. | \$26396.29 | 4919.04 | 3053.72 | 3657.68 | 16374.79 | 6720.10 | 6300.43 | 2411.00 | 9264.66 | 6327.25 |
| 23. | <u>17504.73</u> | <u>3441.02</u> | <u>2185.84</u> | <u>2732.91</u> | <u>12888.30</u> | <u>5073.78</u> | <u>5036.07</u> | <u>1892.37</u> | <u>7143.71</u> | <u>4915.08</u> |
| 24. | 8891.56 | 1478.02 | 867.88 | 924.77 | 3486.49 | 1646.32 | 1264.36 | 518.63 | 2120.95 | 1412.17 |
| 25. | \$22.03 | \$23.19 | \$24.04 | \$21.52 | \$24.83 | \$21.39 | \$25.86 | \$23.73 | \$22.13 | \$21.87 |
| 26. | <u>14.61</u> | <u>16.22</u> | <u>17.21</u> | <u>16.08</u> | <u>19.55</u> | <u>16.15</u> | <u>20.67</u> | <u>18.62</u> | <u>17.06</u> | <u>16.99</u> |
| 27. | 7.42 | 6.97 | 6.83 | 5.44 | 5.28 | 5.24 | 5.19 | 5.11 | 5.07 | 4.88 |
| 28. | .84 | 1.15 | 3.34 | 2.27 | 3.52 | .75 | 2.93 | 2.92 | .33 | 1.64 |
| 29. | 6.58 | 5.82 | 3.49 | 3.17 | 1.76 | 4.49 | 2.26 | 2.19 | 4.74 | 3.24 |
| 30. | 151 | 143 | 140 | 134 | 127 | 132 | 125 | 127 | 130 | 129 |
| 31. | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 |
| 32. | 2.93 | 2.48 | 2.34 | .95 | .79 | .75 | .70 | .62 | .58 | .39 |

Table 3. Long-Fed Calves, 1954-55 (continued)

| | Individual Lot Numbers | | | | |
|---|------------------------|-----------|------------|-----------|------------|
| | 16 | 17 | 18 | 19 | 20 |
| <u>No. and Wt. of Cattle Fed:</u> | | | | | |
| 1. Number of head bought | 100 | 60 | 116 | 39 | 150 |
| 2. Days on farm | 236 | 353 | 300 | 344 | 401 |
| 3. Percent death loss | 6.0 | 0 | 0.8 | 0 | 1.3 |
| 4. Avg. purchase wt. lbs. | 346 | 476 | 424 | 439 | 402 |
| 5. Avg. sale wt. lbs. | 825 | 1165 | 877 | 1012 | 1121 |
| 6. Gain per head, lbs. | 479 | 689 | 453 | 573 | 719 |
| 7. Gain per head per day, lbs. | 2.0 | 2.0 | 1.5 | 1.7 | 1.8 |
| 8. Lb. beef produced per lot | 42960 | 41305 | 51775 | 22365 | 105545 |
| <u>Feed Used per 100 lbs. Gain</u> | | | | | |
| 9. Corn, lb. | 509 | 490 | 488 | 446 | 488 |
| 10. Small grain, lb. | 15 | 5 | 65 | 5 | 9 |
| 11. Commercial feed, lb. | 36 | 42 | 62 | 43 | 49 |
| 12. Total concentrates, lb. | 560 | 537 | 615 | 494 | 546 |
| 13. Legume hay, lb. | 191 | 157 | 226 | 197 | 150 |
| 14. Other hay and stover, lb. | 130 | 0 | 75 | - | - |
| 15. Total dry roughage, lb. | 321 | 157 | 301 | 197 | 150 |
| 16. Silage, lb. | - | 261 | 270 | 689 | 436 |
| 17. Pasture days | 11 | 9 | - | 18 | 16 |
| 18. Total days on pasture | 51 | 60 | - | 103 | 114 |
| <u>Prices of Cattle</u> | | | | | |
| 19. Price paid per 100 lbs. | \$16.23 | \$21.85 | \$19.56 | \$19.30 | \$20.64 |
| 20. Price received per 100 lbs. | 19.03 | 21.27 | 20.92 | 19.71 | 20.12 |
| 21. Price spread, per 100 lbs. | 2.80 | -.58 | 1.36 | .41 | -.52 |
| <u>Cost and Returns per lot</u> | | | | | |
| 22. Total value produced | \$9144.77 | \$8625.93 | \$11500.69 | \$4478.22 | \$20919.59 |
| 23. Total feed cost | 7070.37 | 6685.10 | 9357.25 | 3719.28 | 17416.04 |
| 24. Total return over feed cost | 2074.40 | 1940.83 | 2143.44 | 758.94 | 3503.55 |
| <u>Cost and Returns per 100 lbs. Gain</u> | | | | | |
| 25. Value produced | \$21.29 | \$20.88 | \$22.21 | \$20.02 | \$19.82 |
| 26. Feed costs | 16.45 | 16.19 | 18.07 | 16.63 | 16.50 |
| 27. RETURN OVER FEED COST | 4.84 | 4.69 | 4.14 | 3.39 | 3.32 |
| 28. Return over feed cost from price spread | 2.25 | -.39 | 1.29 | .31 | -.30 |
| 29. Return over feed cost from feeding | 2.59 | 5.08 | 2.85 | 3.08 | 3.62 |
| 30. Return per \$100 feed cost | 129 | 129 | 123 | 120 | 120 |
| 31. Est. costs other than feed | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 |
| 32. Estimated net return | .35 | .20 | -.35 | -1.10 | -1.17 |

Table 3. Long-Fed Calves, 1954-55 (continued)

| | Individual lot numbers | | | | | | | | |
|-----|------------------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|
| | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 1. | 64 | 54 | 61 | 24 | 22 | 108 | 41 | 23 | 39 |
| 2. | 307 | 293 | 327 | 255 | 343 | 339 | 315 | 409 | 365 |
| 3. | 1.6 | 1.8 | 0 | 0 | 4.5 | 2.8 | 0 | 0 | 2.5 |
| 4. | 442 | 358 | 420 | 325 | 354 | 376 | 447 | 425 | 394 |
| 5. | 966 | 825 | 927 | 734 | 882 | 987 | 1028 | 1116 | 835 |
| 6. | 524 | 467 | 507 | 409 | 528 | 611 | 581 | 691 | 441 |
| 7. | 1.7 | 1.6 | 1.6 | 1.6 | 1.5 | 1.8 | 1.8 | 1.7 | 1.2 |
| 8. | 32530 | 24440 | 30870 | 9810 | 10735 | 63050 | 23815 | 15885 | 16340 |
| 9. | 547 | 573 | 491 | 708 | 629 | 598 | 501 | 594 | 726 |
| 10. | 87 | 24 | 21 | - | 7 | 61 | 4 | 43 | 22 |
| 11. | 76 | 29 | 49 | 59 | 58 | 34 | 36 | 64 | 62 |
| 12. | <u>710</u> | <u>626</u> | <u>561</u> | <u>767</u> | <u>694</u> | <u>693</u> | <u>541</u> | <u>701</u> | <u>810</u> |
| 13. | 95 | 348 | 220 | 61 | 335 | 365 | 445 | 239 | 190 |
| 14. | - | - | - | - | - | - | 168 | 63 | - |
| 15. | <u>95</u> | <u>348</u> | <u>220</u> | <u>61</u> | <u>335</u> | <u>365</u> | <u>613</u> | <u>302</u> | <u>190</u> |
| 16. | 523 | - | 635 | - | - | 5 | 118 | 390 | 1560 |
| 17. | - | - | - | 18 | 6 | - | 21 | - | - |
| 18. | - | - | - | 75 | 30 | - | 123 | - | - |
| 19. | \$17.25 | \$20.98 | \$22.16 | \$17.00 | \$17.33 | \$22.00 | \$20.48 | \$20.65 | \$17.70 |
| 20. | 19.80 | 20.63 | 20.41 | 19.60 | 19.60 | 20.41 | 19.48 | 20.00 | 18.69 |
| 21. | 2.55 | -.35 | -1.75 | 2.60 | 2.27 | -1.59 | -1.00 | -.65 | .99 |
| 22. | \$7169.14 | \$4975.51 | \$5855.01 | \$2126.50 | \$2280.58 | \$12227.54 | \$4457.87 | \$3115.75 | \$3208.13 |
| 23. | 6272.68 | 4306.10 | 5251.86 | 1952.47 | 2111.71 | 12324.22 | 4588.97 | 3366.30 | 3865.13 |
| 24. | <u>896.46</u> | <u>669.41</u> | <u>603.15</u> | <u>174.03</u> | <u>168.87</u> | <u>-96.68</u> | <u>-131.10</u> | <u>-250.55</u> | <u>-657.00</u> |
| 25. | \$22.04 | \$20.36 | \$18.97 | \$21.67 | \$21.24 | \$19.39 | \$18.72 | \$19.61 | \$19.63 |
| 26. | 19.28 | 17.62 | 17.02 | 19.90 | 19.67 | 19.54 | 19.27 | 21.19 | 23.65 |
| 27. | <u>2.76</u> | <u>2.74</u> | <u>1.95</u> | <u>1.77</u> | <u>1.57</u> | <u>-.15</u> | <u>-.55</u> | <u>-1.58</u> | <u>-4.02</u> |
| 28. | 2.24 | -.27 | -1.44 | 2.07 | 1.64 | -1.02 | -.76 | -.39 | .94 |
| 29. | .52 | 3.01 | 3.39 | -.30 | -.07 | .87 | .21 | -1.19 | -4.96 |
| 30. | 114 | 116 | 111 | 109 | 108 | 99 | 97 | 93 | 83 |
| 31. | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 |
| 32. | -1.73 | -1.75 | -2.54 | -2.72 | -2.92 | -4.64 | -5.04 | -6.07 | -8.51 |

Table 4. Long-Fed Yearlings, 1954-55

| | Average of 19 lots | Individual lot numbers | | | | |
|---|--------------------------|------------------------|----------------|----------------|----------------|----------------|
| | | 30 | 31 | 32 | 33 | 34 |
| No. and Wt. of Cattle Fed: | | | | | | |
| 1. Number of head bought | 58 | 47 | 51 | 25 | 58 | 50 |
| 2. Days on farm | 309 | 342 | 245 | 273 | 358 | 356 |
| 3. Percent death loss | .8 | 0 | 2.0 | 0 | 0 | 2.0 |
| 4. Avg. purchase wt. lbs. | 621 | 638 | 746 | 513 | 649 | 508 |
| 5. Avg. sale wt. lbs. | 1123 | 1075 | 1157 | 1125 | 1191 | 1291 |
| 6. Gain per head, lbs. | 502 | 437 | 411 | 612 | 542 | 783 |
| 7. Gain per head per day, lbs. | 1.6 | 1.3 | 1.7 | 2.2 | 1.5 | 2.2 |
| 8. Lb. beef prod. per lot | 28454 | 20518 | 20945 | 15310 | 31456 | 37860 |
| Feed Used per 100 lb. Gain | | | | | | |
| 9. Corn, lb. | 493 | 594 | 677 | 382 | 408 | 457 |
| 10. Small grain, lb. | 15 | 6 | 97 | 13 | 0 | 6 |
| 11. Commercial feed, lb. | 46 | 21 | 43 | 23 | 5 | 47 |
| 12. Total Concentrates | <u>554</u> | <u>621</u> | <u>817</u> | <u>418</u> | <u>413</u> | <u>510</u> |
| 13. Legume hay, lb. | 265 | 536 | 358 | 130 | 130 | 217 |
| 14. Other hay and stover, lb. | <u>39</u> | - | <u>153</u> | <u>118</u> | - | - |
| 15. Total dry roughage, lb. | <u>304</u> | <u>536</u> | <u>511</u> | <u>248</u> | <u>130</u> | <u>217</u> |
| 16. Silage, lb. | 890 | - | 463 | - | 846 | 423 |
| 17. Pasture days | 12 | 21 | 12 | 10 | 34 | 7 |
| 18. Total days on pasture | 62 | 93 | 50 | 60 | 184 | 53 |
| Prices of Cattle | | | | | | |
| 19. Price paid per 100 lbs. | \$20.10 | \$19.51 | \$20.25 | \$22.00 | \$20.72 | \$19.00 |
| 20. Price received per 100 lbs. | 21.29 | 23.81 | 25.36 | 21.37 | 21.92 | 20.88 |
| 21. Price spread, per 100 lbs. | -1.19 | 4.30 | 5.11 | -.63 | 1.20 | 1.88 |
| Cost and Returns per Lot | | | | | | |
| 22. Total value produced | \$6311.74 | \$6179.39 | \$7261.25 | \$3191.57 | \$7352.58 | \$8383.30 |
| 23. Total feed cost | <u>5510.51</u> | <u>4256.69</u> | <u>5461.29</u> | <u>1921.90</u> | <u>4837.34</u> | <u>5997.00</u> |
| 24. Total ret. over feed cost | <u>801.23</u> | <u>1922.70</u> | <u>1799.96</u> | <u>1269.67</u> | <u>2515.24</u> | <u>2386.30</u> |
| Cost and Returns per 100 lbs. Gain | | | | | | |
| 25. Value produced | \$22.89 | \$30.12 | \$34.67 | \$20.85 | \$23.34 | \$22.14 |
| 26. Feed costs | <u>19.46</u> | <u>20.74</u> | <u>26.07</u> | <u>12.56</u> | <u>15.38</u> | <u>15.84</u> |
| 27. RETURN OVER FEED COST | <u>3.43</u> | <u>9.38</u> | <u>8.60</u> | <u>8.29</u> | <u>7.96</u> | <u>6.30</u> |
| 28. Return over feed cost from price spread | 1.59 | 6.31 | 9.31 | -.52 | 1.42 | 1.26 |
| 29. Return over feed cost from feeding | 1.84 | 3.07 | -.71 | 8.81 | 6.54 | 5.04 |
| 30. Return per \$100 feed cost | 120 | 145 | 133 | 166 | 152 | 140 |
| 31. Est. Costs other than feed | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 |
| 32. Estimated net return | -1.06 | 4.89 | 4.11 | 3.80 | 3.47 | 1.81 |

Table 4. Long-Fed Yearlings, 1954-55 (continued)

| | Individual lot numbers | | | | | | | | |
|-----|------------------------|----------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|
| | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 |
| 1. | 76 | 79 | 53 | 31 | 84 | 33 | 33 | 50 | 40 |
| 2. | 327 | 254 | 260 | 292 | 317 | 391 | 278 | 259 | 339 |
| 3. | 0 | 0 | 0 | 3.2 | 2.4 | 0 | 0 | 0 | 0 |
| 4. | 533 | 648 | 560 | 554 | 564 | 653 | 738 | 612 | 534 |
| 5. | 1194 | 1051 | 899 | 1027 | 1173 | 1226 | 1084 | 1109 | 1053 |
| 6. | 661 | 403 | 339 | 473 | 609 | 573 | 346 | 497 | 519 |
| 7. | 2.0 | 1.6 | 1.3 | 1.6 | 1.9 | 1.5 | 1.2 | 1.9 | 1.5 |
| 8. | 50240 | 31770 | 17995 | 13640 | 48810 | 18936 | 11400 | 24880 | 20760 |
| 9. | 431 | 557 | 632 | 315 | 444 | 522 | 403 | 631 | 444 |
| 10. | 4 | 10 | 20 | 5 | 65 | 3 | - | - | - |
| 11. | 53 | 108 | 21 | 103 | 55 | 56 | 14 | 42 | 6 |
| 12. | <u>488</u> | <u>675</u> | <u>673</u> | <u>423</u> | <u>564</u> | <u>581</u> | <u>417</u> | <u>673</u> | <u>450</u> |
| 13. | 113 | 113 | 845 | 208 | 168 | 158 | 298 | 130 | 245 |
| 14. | - | - | 122 | - | - | - | - | 43 | - |
| 15. | <u>113</u> | <u>113</u> | <u>967</u> | <u>208</u> | <u>168</u> | <u>158</u> | <u>298</u> | <u>173</u> | <u>245</u> |
| 16. | 790 | 566 | - | 1353 | 627 | 391 | 1825 | 723 | 1324 |
| 17. | 10 | - | - | 7 | 2 | 22 | 18 | 6 | - |
| 18. | 64 | - | - | 34 | 13 | 124 | 61 | 30 | - |
| 19. | \$20.03 | \$19.27 | \$17.74 | \$18.00 | \$16.43 | \$20.80 | \$18.81 | \$19.04 | \$25.09 |
| 20. | 20.89 | 21.59 | 21.29 | 20.16 | 20.13 | 21.60 | 20.00 | 20.85 | 21.47 |
| 21. | .86 | 2.32 | 3.55 | 2.16 | 3.70 | .80 | 1.19 | 1.81 | -3.62 |
| 22. | 10848.36 | 8046.30 | 4885.58 | 3120.29 | 9826.93 | 4260.18 | 2570.44 | 5745.67 | 3683.12 |
| 23. | 8087.97 | 6394.08 | 4143.56 | 2579.97 | 8020.58 | 3560.92 | 2199.01 | 4981.50 | 3381.49 |
| 24. | <u>2760.39</u> | <u>1652.22</u> | <u>742.02</u> | <u>540.32</u> | <u>1806.35</u> | <u>699.26</u> | <u>371.43</u> | <u>764.17</u> | <u>301.63</u> |
| 25. | \$21.59 | \$25.33 | \$27.15 | \$22.87 | \$20.13 | \$22.49 | \$22.55 | \$23.09 | \$17.74 |
| 26. | <u>16.10</u> | <u>20.13</u> | <u>23.02</u> | <u>18.91</u> | <u>16.43</u> | <u>18.80</u> | <u>19.29</u> | <u>20.02</u> | <u>16.29</u> |
| 27. | 5.49 | 5.20 | 4.13 | 3.96 | 3.70 | 3.69 | 3.26 | 3.07 | 1.45 |
| 28. | .70 | 3.74 | 5.86 | 2.76 | -.26 | .89 | 2.55 | 2.24 | -3.73 |
| 29. | 4.79 | 1.46 | -1.73 | 1.20 | 3.96 | 2.80 | .71 | .83 | 5.18 |
| 30. | 134 | 126 | 118 | 121 | 123 | 120 | 117 | 115 | 109 |
| 31. | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 |
| 32. | 1.00 | .71 | -.36 | -.53 | -.79 | -.80 | -1.23 | -1.42 | -3.04 |

Table 4. Long-Fed Yearlings, 1954-55 (continued)

| | Individual lot numbers | | | | |
|---|------------------------|-----------|-----------|-----------|------------|
| | 44 | 45 | 46 | 47 | 48 |
| <u>No. and Wt. of Cattle Fed:</u> | | | | | |
| 1. Number of head bought | 91 | 29 | 21 | 65 | 190 |
| 2. Days on farm | 338 | 338 | 265 | 290 | 341 |
| 3. Percent death loss | .0 | 0 | 0 | 0 | 5.8 |
| 4. Avg. purchase wt. lbs. | 712 | 763 | 757 | 581 | 527 |
| 5. Avg. sale wt. lbs. | 1300 | 1258 | 1146 | 1010 | 962 |
| 6. Gain per head, lbs. | 588 | 495 | 389 | 429 | 435 |
| 7. Gain per head per day, lbs. | 1.7 | 1.5 | 1.5 | 1.5 | 1.3 |
| 8. Lb. beef prod. per lot | 53565 | 14370 | 8165 | 27925 | 72080 |
| <u>Feed Used per 100 lb. Gain</u> | | | | | |
| 9. Corn, lb. | 562 | 737 | 481 | 517 | 182 |
| 10. Small grain, lb. | - | 27 | - | 15 | 6 |
| 11. Commercial feed, lb. | 33 | 44 | 63 | 40 | 89 |
| 12. Total Concentrates | 595 | 808 | 544 | 572 | 277 |
| 13. Legume hay, lb. | 336 | 122 | 359 | 555 | 15 |
| 14. Other hay and stover, lb. | 11 | 122 | - | 61 | 103 |
| 15. Total dry roughage, lb. | 347 | 244 | 359 | 616 | 118 |
| 16. Silage, lb. | 691 | 156 | 1433 | 774 | 4522 |
| 17. Pasture days | 16 | 21 | 12 | 8 | 30 |
| 18. Total days on pasture | 97 | 102 | 47 | 36 | 132 |
| <u>Prices of Cattle</u> | | | | | |
| 19. Price paid per 100 lbs. | \$20.89 | \$19.64 | \$20.00 | \$22.75 | \$21.87 |
| 20. Price received per 100 lbs. | 20.83 | 20.90 | 20.12 | 20.93 | 20.48 |
| 21. Price spread, per 100 lbs. | -.06 | 1.26 | .12 | -1.82 | -1.39 |
| <u>Cost and Returns per Lot</u> | | | | | |
| 22. Total value produced | \$11112.21 | \$3281.90 | \$1663.02 | \$5158.10 | \$13353.01 |
| 23. Total feed cost | 10880.15 | 3320.94 | 1800.67 | 5897.58 | 16977.02 |
| 24. Total ret. over feed cost | 232.06 | -39.04 | -137.65 | -739.48 | -3624.01 |
| <u>Cost and Returns per 100 lbs. Gain</u> | | | | | |
| 25. Value produced | \$20.75 | \$22.84 | \$20.37 | \$18.47 | \$18.52 |
| 26. Feed costs | 20.31 | 23.11 | 22.05 | 21.12 | 23.55 |
| 27. RETURN OVER FEED COST | .44 | -.27 | -1.68 | -2.65 | -5.03 |
| 28. Return over feed cost from price spread | -.08 | 1.94 | .25 | -2.46 | -1.96 |
| 29. Return over feed cost from feeding | .52 | -2.21 | -1.93 | -.19 | -3.07 |
| 30. Return per \$100 feed cost | 102 | 99 | 92 | 87 | 77 |
| 31. Est. costs other than feed | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 |
| 32. Estimated net return | -4.05 | -4.76 | -6.17 | -7.14 | -9.52 |

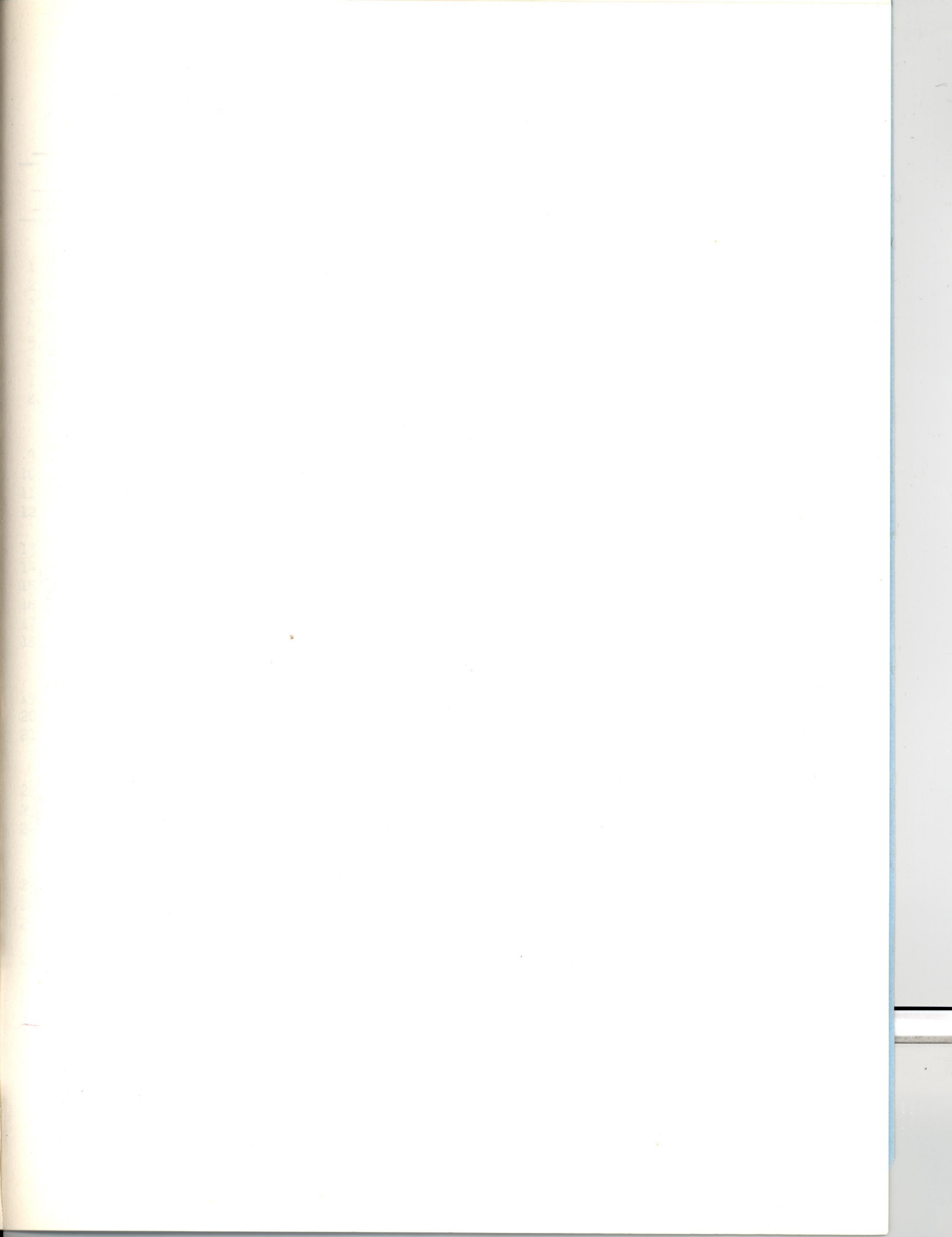


Table 5. Short-Fed Yearlings and Two-Year-Olds, 1954-55

| | Average of 14 lots | Individual lot numbers | | | | |
|---|--------------------------|------------------------|-----------|-----------|-----------|-----------|
| | | 49 | 50 | 51 | 52 | 53 |
| <u>No. and Wt. of Cattle Fed:</u> | | | | | | |
| 1. Number of head bought | 48 | 26 | 26 | 23 | 20 | 21 |
| 2. Days on farm | 172 | 119 | 205 | 176 | 198 | 142 |
| 3. Percent death loss | 1.2 | 4.0 | 0 | 0 | 0 | 0 |
| 4. Avg. purchase wt. lbs. | 746 | 921 | 810 | 601 | 782 | 815 |
| 5. Avg. sale wt. lbs. | 1084 | 1222 | 1145 | 807 | 1275 | 1131 |
| 6. Gain per head, lbs. | 338 | 301 | 335 | 206 | 493 | 316 |
| 7. Gain per head per day, lbs. | 2.0 | 2.5 | 1.6 | 1.2 | 2.5 | 2.2 |
| 8. Lb. beef produced per lot | 14050 | 6600 | 8700 | 4725 | 9855 | 6635 |
| <u>Feed Used per 100 lb. Gain</u> | | | | | | |
| 9. Corn, lb. | 597 | 409 | 428 | 546 | 489 | 692 |
| 10. Small grain, lb. | 7 | 3 | - | 15 | 3 | 21 |
| 11. Commercial feed, lb. | 70 | 78 | 80 | 127 | 72 | 24 |
| 12. Total concentrates, lb. | 674 | 490 | 508 | 688 | 564 | 737 |
| 13. Legume hay, lb. | 330 | 197 | 598 | 391 | 274 | 90 |
| 14. Other hay and stover, lb. | 28 | - | - | - | 5 | - |
| 15. Total dry roughage, lb. | 358 | 197 | 598 | 391 | 279 | 90 |
| 16. Silage, lb. | 812 | 1303 | 1437 | 2285 | 325 | 844 |
| 17. Pasture days | 5 | 10 | 12 | - | - | 14 |
| 18. Total days on pasture | 15 | 29 | 40 | - | - | 45 |
| <u>Prices of Cattle</u> | | | | | | |
| 19. Price paid per 100 lbs. | \$17.77 | \$20.15 | \$11.03 | \$17.00 | \$20.00 | \$16.99 |
| 20. Price received per 100 lbs. | 19.90 | 24.38 | 17.81 | 20.96 | 22.50 | 20.00 |
| 21. Price spread, per 100 lbs. | 2.13 | 4.23 | 6.78 | 3.96 | 2.50 | 3.01 |
| <u>Cost and Returns per Lot</u> | | | | | | |
| 22. Total value produced | \$3549.74 | \$2622.87 | \$2975.44 | \$1538.27 | \$2608.37 | \$1843.01 |
| 23. Total feed cost | 3324.58 | 1271.10 | 2037.92 | 1076.85 | 1702.29 | 1419.78 |
| 24. Total return over feed cost | 225.16 | 1351.77 | 937.52 | 461.42 | 906.08 | 423.23 |
| <u>Cost and Returns per 100 lbs. Gain</u> | | | | | | |
| 25. Value produced | \$25.61 | \$39.74 | \$34.20 | \$32.55 | \$26.46 | \$27.78 |
| 26. Feed costs | 22.16 | 19.25 | 23.42 | 22.80 | 17.27 | 21.40 |
| 27. RETURN OVER FEED COSTS | 3.45 | 20.48 | 10.78 | 9.75 | 9.19 | 6.38 |
| 28. Return over feed cost from price spread | 5.70 | 15.35 | 16.39 | 11.59 | 3.96 | 7.78 |
| 29. Return over feed cost from feeding | -2.25 | 5.13 | -5.61 | -1.84 | 5.23 | -1.40 |
| 30. Return per \$100 feed cost | 119 | 206 | 146 | 143 | 153 | 130 |
| 31. Est. costs other than feed | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 |
| 32. Estimated net return | -1.04 | 15.99 | 6.29 | 5.26 | 4.70 | 1.89 |

Table 5. Short-Fed Yearlings and Two-Year-Olds, 1954-55 (continued)

| | Individual lot numbers | | | | | | | | |
|-----|------------------------|----------|-----------|------------|-----------|-----------|-----------|----------|-----------|
| | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 |
| 1. | 45 | 10 | 34 | 306 | 26 | 25 | 17 | 22 | 72 |
| 2. | 178 | 207 | 205 | 182 | 186 | 155 | 207 | 80 | 173 |
| 3. | 0 | 0 | 0 | 0.65 | 0 | 0 | 0 | 0 | 12.5 |
| 4. | 756 | 689 | 743 | 616 | 825 | 900 | 556 | 744 | 682 |
| 5. | 1170 | 1030 | 1156 | 886 | 1114 | 1287 | 1006 | 910 | 999 |
| 6. | 414 | 341 | 413 | 270 | 319 | 387 | 450 | 166 | 317 |
| 7. | 2.3 | 1.6 | 2.0 | 1.5 | 1.7 | 2.5 | 2.2 | 2.1 | 1.8 |
| 8. | 18655 | 3415 | 14030 | 80991 | 8285 | 9670 | 7650 | 3662 | 13835 |
| 9. | 624 | 369 | 658 | 689 | 233 | 741 | 665 | 765 | 1052 |
| 10. | - | - | 23 | 11 | - | - | 18 | - | - |
| 11. | 31 | 50 | 73 | 80 | 49 | 170 | 76 | 22 | 45 |
| 12. | 655 | 419 | 754 | 780 | 282 | 911 | 759 | 787 | 1097 |
| 13. | 198 | 286 | 392 | 89 | 1078 | 103 | 183 | 410 | 325 |
| 14. | - | 95 | - | - | - | - | 65 | - | 231 |
| 15. | 198 | 381 | 392 | 89 | 1078 | 103 | 248 | 410 | 556 |
| 16. | 236 | 703 | 114 | 2198 | 1207 | 248 | 26 | 437 | - |
| 17. | - | 5 | 6 | - | - | - | - | - | 18 |
| 18. | - | 17 | 24 | - | - | - | - | - | 58 |
| 19. | \$19.69 | \$18.00 | \$19.05 | \$13.77 | \$19.55 | \$21.64 | \$22.10 | \$18.00 | \$11.79 |
| 20. | 21.22 | 19.27 | 21.28 | 17.23 | 19.50 | 22.21 | 20.21 | 18.33 | 13.77 |
| 21. | 1.53 | 1.27 | 2.23 | 3.46 | -.05 | .57 | -1.89 | .33 | 1.98 |
| 22. | \$4479.79 | \$745.95 | \$3547.95 | \$20484.82 | \$1604.89 | \$2276.32 | \$1367.67 | \$723.27 | \$2877.75 |
| 23. | 3337.07 | 585.62 | 3073.50 | 20906.76 | 1699.97 | 2555.66 | 1602.09 | 860.69 | 4414.86 |
| 24. | 1142.72 | 160.33 | 474.45 | -421.94 | -95.08 | -279.34 | -234.42 | -137.42 | -1537.11 |
| 25. | \$24.01 | \$21.84 | \$25.29 | \$25.29 | \$19.37 | \$23.54 | \$17.87 | \$19.75 | \$20.80 |
| 26. | 17.89 | 17.15 | 21.91 | 25.81 | 20.52 | 26.42 | 20.94 | 23.50 | 31.91 |
| 27. | 6.13 | 4.69 | 3.38 | -.52 | -1.15 | -2.88 | -3.07 | -3.75 | -11.11 |
| 28. | 2.80 | 2.57 | 4.01 | 8.06 | -.13 | 1.33 | -2.34 | 1.42 | 7.03 |
| 29. | 3.33 | 2.12 | -.63 | -8.58 | -1.02 | -4.21 | -.73 | -5.17 | -18.14 |
| 30. | 134 | 127 | 115 | 98 | 94 | 89 | 85 | 84 | 65 |
| 31. | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 |
| 32. | 1.64 | .20 | -1.11 | -5.01 | -5.64 | -7.37 | -7.56 | -8.24 | -15.60 |

Table 6. A Three-Year Comparison of Feeder Cattle Costs and Returns

| | Long-Fed Calves | | |
|---|-----------------|----------------|----------------|
| | 1952-53 | 1953-54 | 1954-55 |
| | Ave 18 lots | Ave 20 lots | Ave 29 lots |
| No. and Wt. of Cattle Fed: | | | |
| 1. Number of head bought | 67 | 57 | 64 |
| 2. Days on farm | 328 | 340 | 324 |
| 3. Percent death loss | 1.9 | 1.9 | 1.1 |
| 4. Ave. purchase wt. lbs. | 408 | 413 | 410 |
| 5. Ave. sale wt. lbs. | 952 | 965 | 947 |
| 6. Gain per head, lbs. | 544 | 552 | 537 |
| 7. Gain per head per day, lbs. | 1.7 | 1.6 | 1.7 |
| 8. Lb. beef produced per lot | 35429 | 30073 | 34212 |
| Feed Used per 100 lb. Gain | | | |
| 9. Corn, lb. | 524 | 480 | 515 |
| 10. Small grain, lb. | 22 | 22 | 20 |
| 11. Commercial feed, lb. | 45 | 43 | 47 |
| 12. Total concentrates, lb. | 591 | 545 | 582 |
| 13. Legume hay, lb. | 299 | 323 | 199 |
| 14. Other hay and stover, lb. | 25 | 23 | 23 |
| 15. Total dry roughage, lb. | 324 | 346 | 222 |
| 16. Silage, lb. | 368 | 410 | 395 |
| 17. Pasture days | 11 | 11 | 9 |
| 18. Total days on pasture | 56 | 57 | 50 |
| Prices of Cattle | | | |
| 19. Price paid per 100 lbs. | \$27.28 | \$20.40 | \$19.15 |
| 20. Price received per 100 lbs. | 23.69 | 22.79 | 20.71 |
| 21. Price spread, per 100 lbs. | -3.59 | 2.39 | 1.56 |
| Cost and Returns per Lot | | | |
| 22. Total value produced | \$7593.26 | \$7545.81 | \$7431.22 |
| 23. Total feed cost | 6751.57 | 5749.13 | 5873.52 |
| 24. Total return over feed cost | 841.69 | 1796.68 | 1557.70 |
| Cost and Returns per 100 lbs. Gain | | | |
| 25. Value produced | \$20.94 | \$24.72 | \$22.00 |
| 26. Feed costs | 19.74 | 18.89 | 17.63 |
| 27. RETURN OVER FEED COSTS | 1.20 | 5.83 | 4.37 |
| 28. Return over feed cost from price spread | -2.75 | 1.93 | 1.30 |
| 29. Return over feed cost from feeding | 3.95 | 3.90 | 3.07 |
| 30. Return per \$100 feed cost | 106 | 131 | 127 |
| 31. Est. costs other than feed | 4.49 | 4.49 | 4.49 |
| 32. Estimated net return | -3.29 | 1.34 | -.12 |

Table 6. A Three-Year Comparison of Feeder Cattle Costs and Returns (continued)

| | Long-Fed Yearlings | | | Short-Fed Yearlings and Two-Year-Olds | | |
|-----|--------------------|----------------|----------------|---------------------------------------|----------------|----------------|
| | 1952-53 | 1953-54 | 1954-55 | 1952-53 | 1953-54 | 1954-55 |
| | Ave 10 lots | Ave 16 lots | Ave 19 lots | Ave 15 lots | Ave 16 lots | Ave 14 lots |
| 1. | 44 | 64 | 58 | 43 | 44 | 48 |
| 2. | 333 | 323 | 309 | 167 | 178 | 172 |
| 3. | 0.7 | 0.6 | 0.8 | 1.0 | 0.2 | 1.2 |
| 4. | 643 | 645 | 621 | 751 | 699 | 746 |
| 5. | 1132 | 1130 | 1123 | 1065 | 1033 | 1084 |
| 6. | 489 | 485 | 502 | 314 | 334 | 338 |
| 7. | 1.5 | 1.5 | 1.6 | 1.9 | 1.9 | 2.0 |
| 8. | 21100 | 32449 | 28454 | 12760 | 14303 | 14050 |
| 9. | 520 | 521 | 493 | 703 | 645 | 597 |
| 10. | 11 | 16 | 15 | 10 | 46 | 7 |
| 11. | 53 | 55 | 46 | 61 | 63 | 70 |
| 12. | 584 | 592 | 554 | 774 | 754 | 674 |
| 13. | 197 | 337 | 265 | 201 | 288 | 330 |
| 14. | 42 | 39 | 39 | 32 | 3 | 28 |
| 15. | 239 | 376 | 304 | 233 | 291 | 358 |
| 16. | 922 | 569 | 890 | 535 | 681 | 812 |
| 17. | 8 | 10 | 12 | 9 | 7 | 5 |
| 18. | 42 | 54 | 62 | 28 | 23 | 15 |
| 19. | \$ 28.89 | \$ 19.97 | \$ 20.10 | \$ 23.37 | \$ 16.14 | \$ 17.77 |
| 20. | 23.83 | 22.66 | 21.29 | 20.10 | 21.59 | 19.90 |
| 21. | -5.06 | 2.69 | 1.19 | -3.27 | 5.45 | 2.13 |
| 22. | \$3611.93 | \$8439.72 | \$6311.74 | \$1452.89 | \$4651.75 | \$3549.74 |
| 23. | <u>4297.72</u> | <u>7185.84</u> | <u>5510.51</u> | <u>3202.84</u> | <u>3492.55</u> | <u>3324.58</u> |
| 24. | -685.79 | 1253.88 | 801.23 | -1749.95 | 1159.20 | 225.16 |
| 25. | \$17.14 | \$27.04 | \$22.89 | \$12.90 | \$33.21 | \$25.61 |
| 26. | <u>20.80</u> | <u>21.34</u> | <u>19.46</u> | <u>24.19</u> | <u>23.95</u> | <u>22.16</u> |
| 27. | -3.66 | 5.70 | 3.43 | -11.29 | 9.26 | 3.45 |
| 28. | -6.69 | 4.38 | 1.59 | -7.20 | 11.62 | 5.70 |
| 29. | 3.03 | 1.32 | 1.84 | -4.09 | -2.36 | -2.25 |
| 30. | 82 | 127 | 120 | 53 | 139 | 119 |
| 31. | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 |
| 32. | -8.15 | 1.21 | -1.06 | -15.78 | 4.77 | -1.04 |

COSTS AND RETURNS

Returns or profits in cattle feeding are determined by the sales income minus the costs. The major items of cost are the cattle themselves and the feed they consume. The beef cattle feeder aims to maximize profits by keeping these costs in line with the anticipated selling price.

The cost and return information presented in tables 3, 4, and 5 gives the prices paid and received for cattle, the cost and returns per lot and the cost and returns per 100 pounds gain.

The price spread (line 21) is the difference between the purchase price and selling price per 100 pounds. The main comparison and analysis is made by cost and returns per 100 pounds gain as found in the last part of the tables, (lines 25-29). The return over feed cost per 100 pounds of gain in weight (line 27) is used in this study as a measure of relative profitability of individual lots of cattle and of the different groups compared. A return over feed costs results from (1) a positive price spread and (2) gain in weight produced in the feed lot at less cost than the selling price. The return over feed cost from price spread (line 28) and return over feed cost from feeding (line 29) indicates the amount each contributes to the return over feed cost. The return from feeding (line 29) is the difference between the feed cost per 100 pounds gain and the selling price per 100 pounds. The remainder of the return is from price spread minus death loss. The return per \$100 feed cost (line 30) is the measure of the total return compared to feed cost.

The return over feed cost does not tell the whole story as to returns in cattle feeding. Feed cost is a major item of cost but other costs, such as labor, interest, shelter, equipment, power and some miscellaneous costs, must be covered if one wishes to compute net returns. Data covering these items were not available for the farms covered by this study. However, a cost accounting study on similar feeding operations in southern Minnesota in 1953 showed the average cost of these items to be \$4.49 per 100 pounds net gain in weight.^{1/} This average charge has been used in tables 3, 4, and 5 (line 31) in computing the net return from each lot of cattle. The return over all costs thus computed must be regarded as only an approximation. The range of other costs in the study was from \$2.71 to \$6.82 per 100 pounds of cattle produced among the lots included. This rough approximation of \$4.49 per 100 pounds does help in determining the profitability of cattle feeding.

COMPARATIVE ANALYSIS OF PRICE SPREAD, FEED COSTS AND RETURNS

An analysis of tables 3, 4, and 5 indicates a wide variation among the different lots as to costs and returns. A comparison of the high profit lots and the low profit lots will indicate that the major factors affecting profit are feed cost and price spread.

The importance of low feed costs and marketing margins for profitable cattle

^{1/} Agricultural Economics Report No. 217. Institute of Agriculture, University of Minnesota, September, 1954.

feeding is emphasized in Table 7. Each of the three types of feeding programs as listed in tables 3, 4, and 5 are divided into the lots with above average return above feed cost per 100 pounds gain and those with below average returns.

A study of table 7 indicates that there were no significant differences between the high and low profit groups as to length of feeding period, purchase weight, sales weight, daily gain or days on pasture. The two major differences between the high and low profit groups are found in the price spread (line 14) and the feed cost (line 16). These factors affect the return over feed cost from price spread (line 18) and the return over feed cost from feeding (line 19).

Table 7. Comparison of High and Low Profit Lots, 1954-55

| | Long-Fed Calves | | | Long-Fed Yearlings | | | Short-Fed Yearlings and Two-Year Olds | | |
|---|---------------------------------------|-------------------|---------|--------------------------------------|-------------------|---------|---------------------------------------|-------------------|---------|
| | Average for 17 lots with 12 lots with | | | Average for 11 lots with 8 lots with | | | Average for 7 lots with 7 lots with | | |
| | for above ave. return | below ave. return | Average | for above ave. return | below ave. return | Average | for above ave. return | below ave. return | Average |
| 1. Days on farm | 324 | 318 | 333 | 309 | 310 | 307 | 172 | 175 | 170 |
| 2. Percent death loss | 1.1 | 0.9 | 1.3 | 0.8 | 0.9 | 0.7 | 1.2 | 0.6 | 2.7 |
| 3. Ave. Purch. wt. lbs. | 410 | 416 | 401 | 621 | 597 | 656 | 746 | 768 | 724 |
| 4. Ave. Sale wt. lbs. | 947 | 949 | 943 | 1123 | 1128 | 1115 | 1084 | 1111 | 1055 |
| 5. Gain/head, lbs. | 537 | 533 | 542 | 502 | 531 | 459 | 338 | 343 | 331 |
| 6. Gain/hd./day, lbs. | 1.7 | 1.7 | 1.6 | 1.6 | 1.7 | 1.5 | 2.0 | 2.0 | 2.0 |
| Feed Used per 100 lb. gain | | | | | | | | | |
| 7. Grain, lb. | 535 | 488 | 586 | 508 | 513 | 504 | 604 | 514 | 693 |
| 8. Commercial feed lb. | 47 | 48 | 52 | 46 | 49 | 41 | 70 | 66 | 74 |
| 9. Tot. conc., lb. | 582 | 536 | 638 | 554 | 562 | 545 | 674 | 580 | 767 |
| 10. Dry roughage, equi., lbs. | 354 | 326 | 393 | 600 | 472 | 777 | 629 | 645 | 612 |
| 11. Pasture days | 9 | 10.7 | 6.6 | 12 | 11 | 10 | 5 | 6 | 3.4 |
| Prices of Cattle | | | | | | | | | |
| 12. Price pd/100 lb. | \$19.15 | \$18.84 | \$19.59 | \$20.10 | \$19.43 | \$21.00 | \$17.77 | \$17.55 | \$17.98 |
| 13. Price rec/100 lb. | 20.71 | 21.24 | 19.95 | 21.29 | 21.73 | 20.69 | 19.90 | 20.87 | 18.93 |
| 14. Price spread per 100 lbs. | 1.56 | 2.40 | .36 | 1.19 | 2.30 | -.31 | 2.13 | 3.33 | .95 |
| Cost & Returns per 100 lbs. gain | | | | | | | | | |
| 15. Value produced | 22.00 | 23.15 | 20.31 | 22.89 | 24.61 | 20.54 | 25.61 | 29.51 | 21.70 |
| 16. Feed Costs | 17.63 | 16.65 | 18.03 | 19.46 | 18.54 | 20.71 | 22.16 | 19.88 | 24.43 |
| 17. Ret. over Feed Costs | 4.37 | 6.50 | 1.28 | 3.43 | 6.07 | -.17 | 3.45 | 9.63 | -2.73 |
| 18. Return over Feed Cost from Price Spread | 1.30 | 1.90 | 0.36 | 1.59 | 2.87 | -.15 | 5.70 | 8.63 | 2.76 |
| 19. Return over Feed Cost from Feeding | 3.07 | 4.60 | 0.92 | 1.84 | 3.20 | -.02 | -2.25 | 1.00 | -5.49 |
| 20. Return per \$100 Feed Cost | 127 | 140 | 108 | 120 | 134 | 100 | 119 | 148 | 90 |
| 21. Est. other Costs | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 |
| 22. Est. Net Return | -.12 | 2.01 | -3.21 | -1.06 | 1.58 | -4.66 | -1.04 | 5.14 | -7.22 |

Table 8. Price Spread, Feed Costs and Returns, 1954-55

| | Long-Fed Calves | | | Long-Fed Yearlings | | | Short-Fed Yearlings and Two-Year-Olds | | |
|--|----------------------------------|-----------------------|--------|-----------------------|-----------------------|--------|--|-----------------------|--------|
| | Lots above ave. | Lots below ave. | Diff. | Lots above ave. | Lots below ave. | Diff. | Lots above ave. | Lots below ave. | Diff. |
| | 14. Price Spread per 100 lbs. | \$2.40 | \$.36 | \$2.04 | \$2.30 | \$-.31 | \$2.61 | \$3.33 | \$.95 |
| 16. Feed costs per 100 lbs. gain | 16.65 | 18.03 | 1.38 | 18.54 | 20.71 | 2.17 | 19.88 | 24.43 | 4.55 |
| 18. Return over feed cost from price spread | 1.90 | .36 | 1.54 | 2.87 | -.15 | 3.02 | 8.63 | 2.76 | 5.87 |
| 19. Return over feed cost from feeding | 4.60 | .92 | 3.68 | 3.20 | -.02 | 3.22 | 1.00 | -5.49 | 6.49 |
| 17. Return over feed costs per 100 lbs. gain | 6.50 | 1.28 | 5.22 | 6.07 | -.17 | 6.24 | 9.63 | -2.73 | 12.36 |

The data in Table 8 was computed from figures taken from lines 14, 16, 17, 18, and 19 in Table 7. These figures indicate how the differences in price spread and feed cost contribute to the difference in return over feed cost per 100 pounds gain. For the three types of cattle feeding programs the table shows the figures for the above average group, the below average group and the difference between the two on price spread, costs and returns. For example, for calves the return over feed cost for the above average group was \$6.50, for the below average group it was \$1.28, or a difference of \$5.22. Of this difference, \$1.54 was the difference in return over feed cost from price spread and \$3.68 was the difference in return over feed costs from feeding. Similar comparisons can be made for the long-fed yearlings and for the short-fed yearlings and two-year-olds. The widest difference in return between the high and low return groups was in the lots of short-fed yearlings and two-year-olds. There was a wider difference in price spread and feed costs than for the calves or long-fed yearlings.

Table 9. Price Spread, Feed Costs and Returns
Two-Year Average, 1953-54, 1954-55

| | Long-Fed Calves | | | Long-Fed Yearlings | | | Short-Fed Yearlings and Two-Year-Olds | | |
|--|----------------------------------|-----------------------|---------|-----------------------|-----------------------|--------|--|-----------------------|--------|
| | Lots above ave. | Lots below ave. | Diff. | Lots above ave. | Lots below ave. | Diff. | Lots above ave. | Lots below ave. | Diff. |
| | 14. Price Spread per 100 lbs. | \$3.70 | \$-1.05 | \$4.75 | \$3.65 | \$-.30 | \$3.95 | \$4.99 | \$2.60 |
| 16. Feed costs per 100 lbs. gain | 17.18 | 19.56 | 2.38 | 19.19 | 21.99 | 2.80 | 20.56 | 25.56 | 5.00 |
| 18. Return over feed cost from price spread | 2.87 | -.58 | 3.45 | 4.98 | .37 | 4.61 | 11.44 | 5.84 | 5.60 |
| 19. Return over feed cost from feeding | 5.20 | .60 | 4.60 | 3.22 | -.58 | 3.80 | .35 | -4.94 | 5.29 |
| 17. Return over feed costs per 100 lbs. gain | 8.07 | .02 | 8.05 | 8.20 | -.21 | 8.41 | 11.79 | .90 | 10.89 |

Two year averages of the same information as found in Table 8 is presented in Table 9. In computing the average, equal weight was given for the figures for each of the two years. It will be noted that the two-year average indicates the same general trends on differences between return from price spread and return from feeding as was found for the one year, 1954-55.

These comparisons indicate that differences in returns from feeding and from price spread were of fairly equal importance as contributing factors towards the differences in return between the high profit lots and the low profit lots.

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 gains in weight as are represented by these lots of long-fed calves, long-fed yearlings, and short-fed yearlings and two-year-olds.

Table 10. Returns from Price Spread and from Feeding

| | Long-Fed Calves Ave. of 29 lots | Long-Fed Yearlings Ave. of 19 lots | Short-Fed Yearlings and Two-Year-Olds Ave. of 14 lots |
|--|------------------------------------|---------------------------------------|---|
| Price Spread/100 lbs. | 1.56 | 1.19 | 2.13 |
| Return over feed cost from price spread | 1.30 | 1.59 | 5.70 |
| Return over feed cost from feeding | 3.07 | 1.84 | -2.25 |
| Return over feed cost per 100 lbs. gain | 4.37 | 3.43 | 3.45 |
| Ave. purchase wt., lbs. | 410 | 621 | 746 |
| Gain per head, lbs. | 537 | 502 | 338 |

The returns from feeding are of most importance in the calf feeding program and become relatively less important for the long-fed yearlings and least in importance for the short-fed yearlings and two-year-olds (see Table 10). 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 least importance for calves because of their lower initial weight and becomes relatively more important as the purchase weights increase with the older and heavier cattle. A comparison of the importance of price spread might be made by comparing the calves with the short-fed yearlings and two-year-olds. For the calves the price spread was \$1.56 per hundred but the return from price spread per 100 pounds gain was only \$1.30 of the total \$4.37 return per 100 pounds gain. The average gain in weight was 537 pounds per head compared to the average purchase weight of 410 pounds. The profit on the gain was more important because the gain exceeded the initial weight by 127 pounds. For the short-fed yearlings and two-year-olds the price spread was \$2.13 per 100 pounds but the return from price spread per 100 pounds gain in weight was \$5.70. The total return was \$3.45 per 100 pounds gain after subtracting the \$2.25 loss from feeding. The gain in weight was 338 pounds and the average purchase weight was 746 pounds. The price spread was relatively more important than feeding profit because the initial weight exceeded the gain in weight by 408 pounds. In other words, the return on these heavier cattle was made by selling the initial purchase weight at a good margin or 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 selling weight, the more important price spread becomes. It means that feeding of calves has less risk than feeding heavier cattle but there is also less potential profit. The buying and selling phase of the heavy cattle feeding program becomes extremely important because the price spread is the main factor in determining profits. Heavy cattle feeding is a higher risk program with chances of higher profits or greater losses.