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1957 Annual Report

**SOUTHEASTERN MINNESOTA
FARM MANAGEMENT SERVICE**

**University of Minnesota
Institute of Agriculture**

and

**United States Department of Agriculture
Agricultural Research Service
and the
County Extension Services of
14 Southeastern Minnesota Counties**

and the

**Southeast Minnesota Farm Management Association
Cooperating**

-----O-----

**Report No. 238
Department of Agricultural Economics
Institute of Agriculture
St. Paul 1, Minnesota
April, 1958**

1200/5/58

1957 ANNUAL REPORT OF THE SOUTHEASTERN MINNESOTA FARM MANAGEMENT SERVICE

Prepared by T. R. Nodland, G. A. Pond, M. R. Behr and D. E. Erickson

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INTRODUCTION

The Department of Agricultural Economics and the Agricultural Extension Service of the University of Minnesota, the Agricultural Research Service of the United States Department of Agriculture and the county extension services of several southeastern Minnesota counties are cooperating with the Southeast Minnesota Farm Management Association in maintaining a farm management service. The Southeastern Minnesota Farm Management Service was organized late in 1927 and began operation on January 1, 1928. The Southeastern Minnesota Farm Management Association was organized in 1939 by the farmers and now represents the farmers in determining policies and maintaining the field organization and membership. Each farmer pays an annual fee which covers a part of the cost. The balance of the cost is defrayed by the University of Minnesota and the United States Department of Agriculture.

The analysis of the records and the preparation of the report are handled by the Department of Agricultural Economics under the direction of T. R. Nodland and G. A. Pond. Extension work in connection with the two services is handled by E. Hartmans and Harlund Routh. Harvey Bjerke was the field agent for this project. At the end of the year S. A. Engene, R. B. Zoller, Norbert Dorow, Paul Hoepner and Duane Erickson of the Department of Agricultural Economics, aided in closing the records.

The following tabulation shows by counties the number of records submitted, the officers of the Associations, and the county agricultural extension agents who cooperated in 1957.

| County | No. of records | Association Officers | County Agricultural Extension Agent |
|----------|----------------|--------------------------------|-------------------------------------|
| Dakota | 8 | William Frame, Director | Clarence O. Quie |
| Dodge | 13 | Forest Chapin, Vice-President | Loyel Hoseck |
| Freeborn | 16 | Ross Ferguson, Director | Eldon H. Senske |
| Goodhue | 23 | Richard Featherstone, Director | G. J. Kunau |
| Le Sueur | 7 | Emil Dietz, Director | Floyd H. Bellin, Jr. |
| Mower | 7 | Clarence Smith, President | Don Hasbargen |
| Nicollet | 11 | Wilbur Halbert, Director | F. E. Wetherill |
| Olmsted | 16 | Thomas Dickerman, Director | Richard Radway |
| Rice | 13 | Lowell Albers, President | Warren Liebenstein |
| Scott | 3 | | Arnold Sandager |
| Steele | 15 | Walter Dunn, Secretary | J. R. Gute |
| Wabasha | 12 | Fritz Sprenger, Director | Mathas Metz |
| Waseca* | 21 | Francis Miller, Director | C. F. Murphy |
| Winona | 10 | Charles Radatz, Director | Harold Karli |
| Total | 175 | | |

* Includes seven records from members of the Waseca Farm and Home Planning Group and supervised by Ralph Palan.

The data for 165 farms are shown in the tables on succeeding pages. Ten farms were omitted from all averages in the tables because the records were not sufficiently complete for a full analysis or the records were not returned for analysis following completion of income tax schedules.

Because the farmers included in this study are, in general, above the average in managerial ability and operate larger and more productive farms, they have returns materially higher than the average for this section of the state. There were, nevertheless, wide variations in the methods and practices followed by these men. It is reasonable to assume that similar variations occur among all farmers in the area. To the extent that this is true, this report would be of value to all farmers and to others interested in agriculture in that it illustrates how farm records may be used as a basis for making an analysis of a farm business and for improving the management of a farm.

Table 1. Summary of Farm Inventories, 1957*

| Items | Your farm | | Average of 165 farms | |
|--------------------------------------|-----------|---------|----------------------|---------|
| | Jan. 1 | Dec. 31 | Jan. 1 | Dec. 31 |
| 1. Size of farm (acres) | | | 229 | |
| 2. Size of business (work units)** | | | 490 | |
| 3. Dairy and dual purpose cows | \$ | \$ | \$3034 | \$3116 |
| 4. Other dairy & dual purpose cattle | | | 1438 | 1543 |
| 5. Beef cattle (incl. feeders) | | | 1279 | 1409 |
| 6. Hogs | | | 1352 | 1720 |
| 7. Sheep (including feeders) | | | 135 | 127 |
| 8. Poultry (including turkeys) | | | 217 | 234 |
| 9. Productive livestock (total) | | | \$7455 | \$8149 |
| 10. Horses | | | 19 | 16 |
| 11. Crop, seed and feed | | | 7463 | 7108 |
| 12. Auto (farm share) | | | 1229 | 1275 |
| 13. Tractors | | | 2053 | 2096 |
| 14. Crop and general machinery | | | 4233 | 4509 |
| 15. Livestock equipment & supplies | | | 1139 | 1428 |
| 16. Machinery & equipment (total) | | | \$8654 | \$9308 |
| 17. Miscellaneous | | | 11 | 11 |
| 18. Land | | | 13069 | 13066 |
| 19. Buildings, fences, etc. | | | 10955 | 11146 |
| 20. Total farm capital | \$ | \$ | \$47626 | \$48804 |

| Items | 33 most profitable farms | | 33 least profitable | |
|--------------------------------------|--------------------------|---------|---------------------|---------|
| | Jan. 1 | Dec. 31 | Jan. 1 | Dec. 31 |
| 1. Size of farm (acres) | 287 | | 213 | |
| 2. Size of business (work units)** | 554 | | 424 | |
| 3. Dairy and dual purpose cows | \$3090 | \$2951 | \$3054 | \$3148 |
| 4. Other dairy & dual purpose cattle | 1238 | 1381 | 1474 | 1465 |
| 5. Beef cattle (incl. feeders) | 2438 | 3284 | 819 | 505 |
| 6. Hogs | 2519 | 3152 | 565 | 947 |
| 7. Sheep (including feeders) | 93 | 78 | 120 | 136 |
| 8. Poultry (including turkeys) | 185 | 382 | 179 | 149 |
| 9. Productive livestock (total) | \$9563 | \$11228 | \$6211 | \$6350 |
| 10. Horses | 11 | 10 | 39 | 15 |
| 11. Crop, seed and feed | 10115 | 10604 | 6943 | 5816 |
| 12. Auto (farm share) | 1338 | 1300 | 1373 | 1397 |
| 13. Tractors | 2492 | 2435 | 2009 | 2199 |
| 14. Crop and general machinery | 4731 | 4867 | 4648 | 5168 |
| 15. Livestock equipment and supplies | 1384 | 1612 | 1363 | 1841 |
| 16. Machinery and equipment (total) | \$9945 | \$10214 | \$9393 | \$10605 |
| 17. Miscellaneous | - | - | 11 | 9 |
| 18. Land | 15347 | 15347 | 12913 | 12913 |
| 19. Buildings, fences, etc. | 13458 | 13724 | 9650 | 9950 |
| 20. Total farm capital | \$58439 | \$61127 | \$45160 | \$45658 |

* For the purpose of comparison, all the data shown in this report, with the exception of tables 4 and 5, are presented on a full-owner basis. The assets, expenses, and receipts of the landlord were included in the records from rented farms.

**See page 21 for an explanation of "work units."

Table 2. Summary of Farm Earnings (Cash Statement), 1957

| Items | Your farm | Average of 165 farms | 33 most profitable farms | 33 least profitable farms |
|--|--------------|----------------------------|--------------------------------|---------------------------------|
| FARM RECEIPTS | | | | |
| 1. Dairy cattle | — | \$1525 | \$1615 | \$1311 |
| 2. Dairy products | — | 6308 | 6365 | 5469 |
| 3. Beef cattle (including feeding cattle) | — | 1742 | 3610 | 1385 |
| 4. Hogs | — | 4610 | 8515 | 2041 |
| 5. Sheep and wool | — | 247 | 121 | 170 |
| 6. Horses | — | 11 | 8 | 30 |
| 7. Poultry (including turkeys) | — | 306 | 212 | 787 |
| 8. Eggs | — | 989 | 1251 | 693 |
| 9. Corn | — | 2002 | 2263 | 3100 |
| 10. Small grain | — | 363 | 667 | 334 |
| 11. Other crops | — | 1456 | 2342 | 1201 |
| 12. Machinery & equipment sold | — | 283 | 528 | 176 |
| 13. Income from work off the farm | — | 564 | 471 | 458 |
| 14. Miscellaneous | — | 249 | 262 | 249 |
| 15. Total farm sales | — | \$20655 | \$28230 | \$17404 |
| 16. Increase in farm capital | — | 1178 | 2688 | 498 |
| 17. Family living from the farm | — | 286 | 292 | 219 |
| 18. Total farm receipts | — | \$22119 | \$31210 | \$18121 |
| FARM EXPENSES | | | | |
| 19. Dairy and dual-purpose cattle bought | — | \$ 215 | \$ 187 | \$ 196 |
| 20. Beef cattle bought (incl. feeding cattle) | — | 742 | 1796 | 641 |
| 21. Hogs bought | — | 206 | 156 | 385 |
| 22. Sheep bought | — | 103 | 4 | 8 |
| 23. Horses bought | — | 5 | 6 | 4 |
| 24. Poultry bought (including turkeys) | — | 162 | 283 | 216 |
| 25. Misc. livestock expenses | — | 508 | 602 | 400 |
| 26. Feed bought | — | 2675 | 3754 | 2386 |
| 27. Fertilizers | — | 850 | 1186 | 838 |
| 28. Other crop expenses | — | 659 | 799 | 685 |
| 29. Custom work hired | — | 761 | 808 | 702 |
| 30. Gas, oil and grease bought (farm share) | — | 884 | 1083 | 893 |
| 31. Repairs for tractors, trucks & autos (farm share) | — | 472 | 555 | 497 |
| 32. Repair and upkeep of farm real estate | — | 310 | 397 | 321 |
| 33. Repair and upkeep of crop & gen. mach. | — | 327 | 407 | 307 |
| 34. Repair and upkeep of livestock equip. | — | 157 | 180 | 119 |
| 35. Wages of hired labor | — | 939 | 1391 | 700 |
| 36. Electricity expense | — | 272 | 311 | 234 |
| 37. Pers. prop. and real estate taxes | — | 834 | 1108 | 785 |
| 38. Telephone and general farm expense | — | 308 | 307 | 330 |
| 39. Total cash operating expense | — | \$11389 | \$15323 | \$10647 |
| 40. Mechanical power bought (farm share) | — | 800 | 739 | 965 |
| 41. Crop and general machinery bought | — | 1196 | 1120 | 1606 |
| 42. Livestock equipment bought | — | 496 | 526 | 759 |
| 43. New real estate improvements | — | 979 | 1342 | 993 |
| 44. Total farm purchases | — | \$14860 | \$19050 | \$14970 |
| 45. Decrease in farm capital | — | — | — | — |
| 46. Interest on farm capital | — | 2411 | 2989 | 2270 |
| 47. Unpaid family labor | — | 545 | 449 | 678 |
| 48. Board furnished hired labor | — | 133 | 144 | 138 |
| 49. Total farm expenses | — | \$17949 | \$22632 | \$18056 |
| 50. Labor earnings | — | \$4170 | \$8578 | \$ 65 |

Table 3. Summary of Farm Earnings (Enterprise Statement), 1957*

| Items | Your farm | Average of 165 farms | 33 most profitable farms | 33 least profitable farms |
|---|--------------|----------------------------|--------------------------------|---------------------------------|
| RETURNS AND NET INCREASES | | | | |
| 1. Dairy and dual-purpose cows | | \$6465 | \$6422 | \$5572 |
| 2. Other dairy & dual-purpose cattle | | 1651 | 1662 | 1313 |
| 3. Beef breeding herd | | 273 | 181 | 76 |
| 4. Feeder cattle | | 863 | 2479 | 402 |
| 5. Hogs | | 4816 | 9047 | 2064 |
| 6. Sheep -- farm flock | | 91 | 103 | 174 |
| 7. Sheep -- feeders | | 45 | - | - |
| 8. Turkeys | | 150 | - | 579 |
| 9. Chickens | | 1058 | 1431 | 700 |
| 10. All productive livestock | | \$15412 | \$21325 | \$10880 |
| 11. Value of feed fed to livestock | | 8638 | 11551 | 6700 |
| 12. Return over feed from livestock | | \$ 6774 | \$ 9774 | \$ 4180 |
| 13. Crops, seed and feed | | 7798 | 11467 | 6207 |
| 14. Income from labor off the farm | | 327 | 226 | 268 |
| 15. Agricultural conservation payments | | 47 | 45 | 101 |
| 16. Miscellaneous | | 197 | 217 | 148 |
| 17. Total returns and net increases | | \$15143 | \$21729 | \$10904 |
| EXPENSES AND NET DECREASES | | | | |
| 18. Horses | | \$ 6 | \$ 5 | \$ 5 |
| 19. Truck | | 345 | 401 | 351 |
| 20. Auto (farm share) | | 433 | 500 | 474 |
| 21. Tractor | | 948 | 1194 | 1016 |
| 22. Electricity (farm share) | | 288 | 323 | 250 |
| 23. Hired power | | 357 | 404 | 303 |
| 24. Total power | | \$2377 | \$2827 | \$2399 |
| 25. Crop and general machinery | | 1266 | 1338 | 1517 |
| 26. Livestock equipment | | 363 | 454 | 386 |
| 27. Buildings, fencing, and tiling | | 1035 | 1244 | 1012 |
| 28. Misc. productive livestock expenses | | 503 | 602 | 400 |
| 29. Labor | | 1876 | 2282 | 1740 |
| 30. Real estate taxes | | 666 | 920 | 620 |
| 31. Personal property tax | | 168 | 188 | 165 |
| 32. Insurance | | 133 | 142 | 140 |
| 33. General farm | | 175 | 165 | 190 |
| 34. Interest on farm capital | | 2411 | 2989 | 2270 |
| 35. Total expenses and net decreases | | \$10973 | \$13151 | \$10839 |
| 36. Labor earnings | | 4170 | 8578 | 65 |

* Cash receipts and expenses are adjusted for changes in inventory for each enterprise and for each item of expense in order to show total receipts and net increases, and total expenses and net decreases. The operator's labor earnings are the same as those on page 4.

Table 4. Net Worth Statement for Those Farmers Who Kept a Complete Record of All Assets and Liabilities, 1957 (Operator's share)

| Items | Your farm | | 33 Owners | |
|-------------------------------------|-----------------|---------|--------------|---------|
| | Jan. 1 | Dec. 31 | Jan. 1 | Dec. 31 |
| Total acres in farm | | | 191 | |
| Owned | | | 191 | |
| Rented | | | - | |
| Total farm capital | | | \$41880 | \$43353 |
| Stocks and bonds | | | 1822 | 1899 |
| Life insurance | | | 2365 | 2482 |
| Notes and accounts receivable | | | 1531 | 1662 |
| Shares in cooperative organizations | | | 512 | 550 |
| Outside real estate | | | 1336 | 1987 |
| Cash on hand in bank | | | 897 | 801 |
| Household furnishings and clothing | | | 2513 | 2575 |
| Pers. share of auto | | | 564 | 564 |
| Farm dwelling | | | 4766 | 4590 |
| Total non-farm assets | | | 16306 | 17110 |
| Total assets | | | 58186 | 60463 |
| Federal Land Bank mortgage | | | 2687 | 2344 |
| Other mortgages on farm operated | | | 5443 | 5579 |
| Production credit assoc. loans | | | 371 | 123 |
| Sealed grain | | | 841 | 933 |
| Other chattel mortgages | | | 631 | 746 |
| Notes payable | | | 2105 | 2788 |
| Accounts payable | | | 346 | 374 |
| Total liabilities | | | 12424 | 12887 |
| Farmer's net worth | | | 45762 | 47576 |
| Change in net worth | | | | +1814 |
| | 23 part-owners* | | 10 renters** | |
| | Jan. 1 | Dec. 31 | Jan. 1 | Dec. 31 |
| Total acres in farm | 278 | | 237 | |
| Owned | 145 | | - | |
| Rented | 133 | | 237 | |
| Total farm capital | \$43448 | \$46063 | \$13016 | \$14695 |
| Stocks and bonds | 2974 | 3150 | 251 | 266 |
| Life insurance | 1937 | 1999 | 1256 | 1339 |
| Notes and accounts receivable | 1016 | 868 | 24 | 34 |
| Shares in cooperative organizations | 559 | 584 | 325 | 374 |
| Outside real estate | 327 | 1275 | 49 | 49 |
| Cash on hand in bank | 2596 | 2132 | 308 | 586 |
| Household furnishings and clothing | 2187 | 2265 | 1998 | 2020 |
| Pers. share of auto | 504 | 567 | 216 | 215 |
| Farm dwelling | 3392 | 3548 | - | - |
| Total non-farm assets | 15492 | 16388 | 4427 | 4883 |
| Total assets | 58940 | 62451 | 17443 | 19578 |
| Federal Land Bank mortgage | 1503 | 1550 | - | - |
| Other mortgages on farm operated | 4042 | 4049 | - | - |
| Production Credit Assoc. loans | 563 | 532 | 1199 | 1531 |
| Sealed grain | 630 | 414 | - | - |
| Other chattel mortgages | 1689 | 1291 | 728 | 745 |
| Notes payable | 3088 | 4470 | 1802 | 2261 |
| Accounts payable | 372 | 694 | 365 | 526 |
| TOTAL LIABILITIES | 11887 | 13000 | 4094 | 5063 |
| Farmer's net worth | 47053 | 49451 | 13349 | 14515 |
| Gain in net worth | | +2398 | | +1166 |

* 12 rented for cash, 2 cash and crop share, 4 crop share and 5 livestock and crop share

** 2 rented for cash, 1 cash & crop share, and 7 livestock & crop share

Table 5. Summary of Farm Earnings by Tenure. 1957 (Operator's Share)

| Items | Your Farm | 33 owners | 23 part owners | 10 renters |
|--|--------------|--------------|-------------------|---------------|
| FARM RECEIPTS | | | | |
| Dairy and dual-purpose cattle | \$ | \$ 1258 | \$ 1140 | \$ 990 |
| Dairy products | | 5857 | 5435 | 3039 |
| Beef cattle (including feeders) | | 1039 | 1676 | 1086 |
| Hogs | | 3596 | 3373 | 2752 |
| Sheep and wool (including feeders) | | 73 | 99 | 11 |
| Horses | | 11 | 10 | - |
| Poultry (including turkeys) | | 164 | 47 | 39 |
| Eggs | | 1269 | 733 | 424 |
| Corn | | 1652 | 4298 | 467 |
| Small grain | | 195 | 855 | 122 |
| Other crops | | 1186 | 2366 | 668 |
| Machinery and equipment sold | | 438 | 472 | 161 |
| Income from work off the farm | | 587 | 1190 | 374 |
| Miscellaneous | | 265 | 251 | 126 |
| (1) Total farm sales | \$ | 17592 | 21945 | 10259 |
| (2) Increase in farm capital | | 1473 | 2615 | 1679 |
| (3) Family living from the farm | | 278 | 303 | 220 |
| (4) Total farm receipts (1)+(2)+(3) | | 19343 | 24863 | 12158 |
| FARM EXPENSES | | | | |
| Dairy and dual-purpose cattle bought | \$ | \$ 219 | \$ 48 | \$ 102 |
| Beef cattle bought (incl. feeders) | | 576 | 651 | 702 |
| Hogs bought | | 240 | 134 | 84 |
| Sheep bought (including feeders) | | 5 | 6 | - |
| Horses bought | | 6 | 12 | - |
| Poultry (including turkeys) | | 126 | 63 | 56 |
| Misc. livestock expense | | 445 | 407 | 329 |
| Feed | | 2235 | 2596 | 1378 |
| Fertilizers | | 721 | 1040 | 357 |
| Other crop expense | | 462 | 1148 | 418 |
| Custom work hired | | 733 | 671 | 453 |
| Gas, oil and grease | | 772 | 1058 | 594 |
| Rep. tractor, truck & auto (farm share) | | 446 | 559 | 267 |
| Rep. and upkeep of real estate | | 288 | 278 | 55 |
| Rep. and upkeep of crop & gen. mach. | | 256 | 466 | 186 |
| Rep. and upkeep of livestock equip. | | 149 | 118 | 104 |
| Wages of hired labor | | 658 | 1257 | 781 |
| Electricity expense (farm share) | | 256 | 282 | 183 |
| Real est. and pers. prop. taxes | | 704 | 691 | 86 |
| Cash rent | | - | 606 | 285 |
| Gen. farm and insurance | | 302 | 331 | 149 |
| Interest paid | | 497 | 490 | 174 |
| Total cash operating expense | \$ | 10096 | 12912 | 6743 |
| Mech. power bought (farm share) | | 659 | 1306 | 192 |
| Crop and gen. mach. bought | | 1083 | 1418 | 861 |
| Livestock equipment bought | | 430 | 493 | 239 |
| New real estate improvements | | 1062 | 1967 | 15 |
| (5) Total farm purchases | \$ | 13330 | 18096 | 8050 |
| (6) Decrease in farm capital | | - | - | - |
| (7) Interest on farm capital | | 1634 | 1748 | 519 |
| (8) Unpaid family labor | | 374 | 276 | 273 |
| (9) Board furnished hired labor | | 105 | 156 | 113 |
| (10) Total farm expenses (5)+(6)+(7)+(8)+(9) | | \$15443 | \$20276 | \$ 8956 |
| (11) Labor earnings (4)-(10) | \$ | 3900 | 4587 | 3202 |
| (12) Ret. to cap. & fam. lab. (7)+(8)+(11) | \$ | 5908 | 6611 | 3994 |

Table 6. Household and Personal Expenses for
Those Farms Which Kept Complete Accounts of These Expenses, 1957

| Items | Your Farm | Average of 73 farms | 15 most profit- able farms | 15 least profit- able farms |
|--------------------------------------|--------------|---------------------------|-------------------------------------|--------------------------------------|
| Number of persons - family | | 4.7 | 5.0 | 4.2 |
| Number of adult equiv. - family | | 3.5 | 3.6 | 3.5 |
| other* | | .3 | .3 | .3 |
| EXPENSES | | | | |
| Food and meals bought | | \$ 866 | \$ 950 | \$ 833 |
| Operating and supplies | | 282 | 322 | 226 |
| Furnishings and equipment | | 252 | 273 | 124 |
| Clothing and clothing materials | | 348 | 405 | 291 |
| Personal care and spending | | 85 | 69 | 72 |
| Education and recreation | | 208 | 152 | 185 |
| Gifts and special events | | 127 | 134 | 79 |
| Medical and hosp. insurance | | 370 | 479 | 263 |
| Church and welfare | | 232 | 352 | 213 |
| Pers. share of auto expense | | 166 | 154 | 152 |
| Upkeep on dwelling | | 117 | 12 | 58 |
| Pers. share of tele. and elect. exp. | | 113 | 100 | 116 |
| Total cash living expense | | 3166 | 3402 | 2612 |
| Pers. share new autos | | 151 | 184 | 102 |
| New dwelling | | 59 | 2 | 73 |
| Taxes | | 439 | 913 | 306 |
| Life insurance | | 271 | 428 | 160 |
| Other savings and investments | | 1003 | 1858 | 1611 |
| Total household & pers. cash exp. | | 5089 | 6787 | 4864 |
| Family living from the farm | | 309 | 326 | 214 |
| Total cash expenses & perquisites | | 5398 | 7113 | 5078 |
| RECEIPTS | | | | |
| Return to capital and fam. labor | | \$5763 | \$10818 | \$2689 |
| Income from outside investments | | 242 | 317 | 475 |
| Other personal income | | 557 | 127 | 394 |

* Hired help or others boarded.

Table 7. Family Living from the Farm, 1957

| Items | Your Farm | Average of 165 farms | Your Farm | Average of 165 farms |
|---------------------------|--------------|----------------------------|--------------|----------------------------|
| No. of adult equivalents: | | | | |
| Family | | 3.4 | | |
| Other* | | .3 | | |
| Whole milk | | 1256 qts. | | \$83.96 |
| Skim milk | | 53 qts. | | .83 |
| Cream | | 25 pts. | | 5.25 |
| Cattle | | 620 lbs. | | 93.11 |
| Hogs | | 274 lbs. | | 45.26 |
| Poultry | | 99 lbs. | | 16.60 |
| Eggs | | 145 doz. | | 40.68 |
| Total | | | | \$285.69 |

* Hired help or others boarded.

CUMULATIVE EFFECT OF EXCELLING IN A NUMBER OF MANAGEMENT FACTORS

Studies of earnings of farmers in this area show that there are seven major management factors causing variations in earnings among farmers within a given year. These seven factors are (1) crop yields, (2) choice of crops, (3) returns from livestock, (4) amount of livestock, (5) size of business, (6) work accomplishments per worker, and (7) control over expenses.¹ The combined or cumulative influence of these seven management factors on earnings is shown in table 8. The farmer's earnings are determined to a considerable extent by his accomplishments in these seven factors.

Table 8. Relation of Operator's Labor Earnings to the Number of Factors in which the Farmer Excels

| No. of factors in which farmer excels | No. of farms | Your farm | The length of the shaded lines is in proportion to the average operator's labor earnings | Average labor earnings |
|--|--------------------|--------------|--|------------------------------|
| None or 1 | 15 | _____ | XXXXX | \$ 870 |
| 2 | 35 | _____ | XXXXXXXXXXXXXXXXXX | 2901 |
| 3 | 32 | _____ | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | 4319 |
| 4 | 40 | _____ | XXXXXXXXXXXXXXXXXXXXXXXXXXXX | 4413 |
| 5 | 26 | _____ | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX | 5852 |
| 6 or 7 | 17 | _____ | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX | 6266 |

The array in table 8 indicates that it will be worth while for each cooperator to study carefully his ranking on pages 10 and 11, and learn his standing in respect to each of the above factors and the elements of strength and weakness in his farm business.

^{1/} Pond, G. A. "Why Farm Earnings Vary", University of Minnesota Agricultural Experiment Station Bulletin No. 386, June 1945.

Table 9. Measures of Farm Organization and Management Efficiency, 1957

| Measures used in chart on page 11 | Your farm | Average of 165 farms | 33 most profit- able farms | 33 least profit- able farms |
|---|--------------|----------------------------|-------------------------------------|--------------------------------------|
| Labor earnings | _____ | \$4170 | \$8578 | \$ 65 |
| Crop yields* | _____ | 100 | 104 | 92 |
| Percent tillable land in high ret. crops** | _____ | 56.6 | 58.2 | 57.4 |
| Ret. for \$100 feed to prod. livestock*** | _____ | 100 | 107 | 90 |
| Prod. livestock units per 100 acres**** | _____ | 33.4 | 34.8 | 29.8 |
| Size of business-work units | _____ | 490 | 554 | 424 |
| Work units per worker | _____ | 272 | 292 | 236 |
| Power, mach., equip., & bldg. exp. per work unit | _____ | \$10.69 | \$10.59 | \$13.84 |
| Items related to some of the above measures: | | | | |
| Index of return for \$100 feed from: | | | | |
| Dairy cattle (see pages 16 and 17) | _____ | 100 | 111 | 90 |
| Beef cattle--breeding herd (see page 18) | _____ | 100 | 116 | - |
| Beef cattle--feeders (see page 18) | _____ | 100 | 109 | 80 |
| Hogs (see page 15) | _____ | 100 | 106 | 91 |
| Sheep--farm flock (see page 19) | _____ | 100 | 122 | 64 |
| Sheep--feeders | _____ | 100 | - | - |
| Turkeys | _____ | 100 | - | - |
| Chickens (see page 20) | _____ | 100 | 106 | 96 |
| Number of animal units | _____ | 63.6 | 88.2 | 48.0 |
| Work units on crops | _____ | 102 | 135 | 92 |
| Work units on productive livestock | _____ | 355 | 396 | 306 |
| Other work units | _____ | 33 | 23 | 26 |
| Number of family workers | _____ | 1.3 | 1.3 | 1.4 |
| Number of hired workers | _____ | .5 | .6 | .4 |
| Total number of workers | _____ | 1.8 | 1.9 | 1.8 |
| Power expense per work unit | _____ | \$5.08 | \$5.19 | \$6.23 |
| Crop machinery expense per work unit | _____ | 2.73 | 2.40 | 4.11 |
| Livestock equip. expense per work unit | _____ | .75 | .81 | .91 |
| Bldg. & fencing exp. per work unit | _____ | 2.13 | 2.19 | 2.59 |

* Given as a percentage of the average.

** Crops are marked in table 10, as (A), (B), (C), and (D). All of acres in (A) crops, one-half of acres in (B) crops, and one-fourth of acres in (C) crops are used in calculating percent of tillable land in high return crops.

*** An index weighted by the animal units of livestock.

**** Acres in timber not pastured, roads, waste and farmstead were not included.

Thermometer Chart

Using your figures from page 10, locate your standing with respect to the various measures of farm organization and management efficiency. The averages for the 165 farms included in this summary are located between the dotted lines across the center of this page.

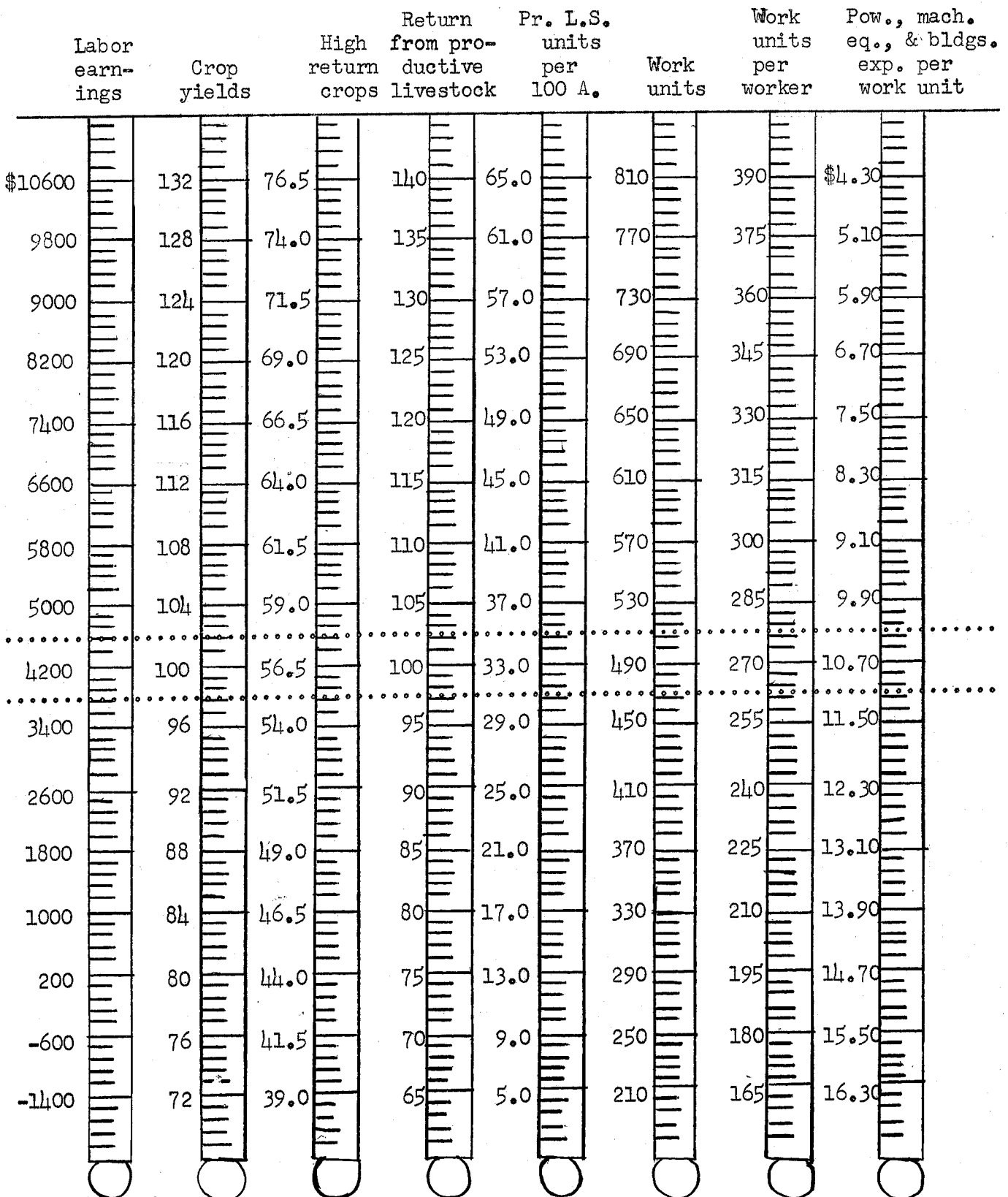


Table 10. Distribution of Acres in Farm, 1957

| Crop | Crop ratings* | Number growing this crop | Your Farm | Average of 165 farms |
|--|---------------|--------------------------|-----------|----------------------|
| Canning peas | B | 19 | — | 1.9 |
| Flax | C | 2 | — | .1 |
| Wheat | C | 35 | — | 2.9 |
| Oats for silage | C | 37 | — | 2.4 |
| Oats for grain | D | 152 | — | 26.9 |
| Barley | D | 16 | — | 1.1 |
| Total small grain and peas | | 159 | — | 35.3 |
| Seed corn, potatoes, truck crops | A | 6 | — | .5 |
| Corn grain | A | 162 | — | 61.4 |
| Corn silage | B | 106 | — | 6.7 |
| Sweet corn | B | 17 | — | 2.2 |
| Soybeans for grain | B | 88 | — | 17.4 |
| Grain sorghum | D | 2 | — | .1 |
| Total cultivated crops | | 164 | — | 88.3 |
| Alfalfa hay | B | 155 | — | 36.5 |
| Red clover hay | C | 6 | — | .3 |
| Other legumes and mixtures | C | 4 | — | .4 |
| Legumes for seed | D | 2 | — | .1 |
| Timothy and brome hay or seed | D | 3 | — | .5 |
| Annual hay | D | 6 | — | .2 |
| Total tillable land in hay | | 157 | — | 38.0 |
| Alfalfa pasture | B | 116 | — | 15.0 |
| Other legumes and mixtures | C | 9 | — | .9 |
| Sudan and/or rape | C | 15 | — | .7 |
| Other tillable pasture | D | 41 | — | 3.5 |
| Total tillable land in pasture | | 139 | — | 20.1 |
| Soil bank | A | 15 | — | 1.2 |
| Tillable land not cropped | D | 13 | — | .9 |
| Total tillable land | | 165 | — | 183.8 |
| Wild hay | | 30 | — | 2.4 |
| Non-tillable pasture | | 107 | — | 19.7 |
| Timber not pastured | | 74 | — | 6.7 |
| Roads and waste | | | — | 9.6 |
| Farmstead | | | — | 7.1 |
| Total acres in farm | | | — | 229.3 |
| Percent land tillable | | | | 80.0 |
| Percent tillable land in high return crops | | | | 56.6 |

* A,B,C, and D refer to ranking used in calculating percent of tillable land in high return crops.

Table 11. Crop Yields per Acre, 1957

| Crop | Your farm | Average of farms growing each crop |
|----------------------------------|-----------|------------------------------------|
| Canning peas, dollars | | \$55.95 |
| Flax, bu. | | 8.4 |
| Wheat, bu. | | 29.8 |
| Oats for silage, tons | | 6.9 |
| Oats for grain, bu. | | 54.7 |
| Barley, bu. | | 39.2 |
| Corn grain, bu. | | 76.8 |
| Corn silage, tons | | 11.7 |
| Sweet corn, tons | | 5.3 |
| Soybeans, bu. | | 26.5 |
| Alfalfa hay, tons | | 2.7 |
| Red clover hay, tons | | 2.3 |
| Other legumes and mixtures, tons | | 2.5 |
| Timothy or brome hay, tons | | 1.4 |
| Annual hay | | 2.8 |
| Wild hay, tons | | .2 |

Table 12. Average Price of Feeds, 1957

| Item | Value | Item | Value |
|----------------------------|--------|-------------------------------|---------|
| Ear corn, per bu. | \$1.10 | Alfalfa hay, per ton | \$17.00 |
| Oats, per bu. | .61 | Red or alsike clover hay,/ton | 14.40 |
| Barley, per bu. | .91 | Timothy, per ton | 9.80 |
| Wheat, per bu. | 2.07 | Wild hay, per ton | 8.50 |
| Bran, per cwt. | 2.50 | Corn silage, per ton | 5.80 |
| Linseed oil meal, per cwt. | 3.50 | Pasture, per mo. per cow | 2.50 |
| Meat scraps, per cwt. | 4.70 | Skim milk per cwt. | .30 |

Table 13. Power and Machinery Expenses per Crop Acre, 1957

| Items | Your farm | Average of 165 farms | 33 most profitable farms | 33 least profitable farms |
|--------------------------------------|-----------|----------------------|--------------------------|---------------------------|
| Crop acres per farm | | 164 | 217 | 147 |
| Tractor exp. per crop acre | | \$6.22 | \$6.06 | \$7.29 |
| Crop & gen. mach. exp. per crop acre | | 7.99 | 6.54 | 10.50 |

TOTAL FEED COSTS AND RETURNS FROM YOUR LIVESTOCK ENTERPRISES

The total "return over feed costs" for each class of livestock is shown in table 14. This differs from the "return over feed" shown in the enterprise statement in that it is the total for each class of livestock instead of a return "per head," "per unit," or "per 100 pounds." These data indicate the relative importance of different classes of livestock as a source of income and as a market for feed. The total return is the same as the returns and net increases shown on page 5. The value of milk consumed by calves is included in the total returns from dairy or dual purpose cows and in the total feed cost for other dairy or other dual purpose cattle. The value of milk consumed by calves is not included in either the total returns or the feed cost of "all dairy" or "all dual purpose" cattle. The return over feed is not a net return, but rather the amount available from the gross income, after paying the feed bill, to cover the outlay for hired labor, power, equipment, taxes, insurance, interest, and veterinary bills and to provide a return for the use of family labor and capital.

Table 14. Total Feed Costs and Returns from Your Livestock Enterprises, 1957

| | Dairy or dual purpose cattle | | | Beef breeding herd |
|------------------------|------------------------------|-------|------------------------|--------------------------|
| | Cows | Other | All | |
| Total returns | _____ | _____ | _____ | _____ |
| Total feed cost | _____ | _____ | _____ | _____ |
| Total return over feed | _____ | _____ | _____ | _____ |
| | Feeder Cattle | Hogs | Farm Flock of sheep | Chickens |
| | | | | |
| Total returns | _____ | _____ | _____ | _____ |
| Total feed cost | _____ | _____ | _____ | _____ |
| Total return over feed | _____ | _____ | _____ | _____ |

Feed is the largest single item of cost for all classes of livestock. However, the proportion of the total cost represented by feed varies considerably between classes of livestock. Feed makes up approximately 45 percent of the total costs of maintaining dairy cattle and poultry, 50 percent in the case of a farm flock of sheep, and 75 to 90 percent for hogs, feeder cattle and feeder lambs. Consequently, it is necessary to secure a relatively higher return over feed from dairy cattle and poultry than from the other livestock enterprises in order to be able to cover all the costs other than feed.

Table 15. Feed Costs and Returns from Hogs, 1957

| Items | Your farm | Average of 120 farms | 24 farms highest in returns above feed | 24 farms lowest in returns above feed |
|---|--------------|----------------------------|---|--|
| Feed per cwt. hogs produced, lbs.: | | | | |
| Corn | _____ | 327 | 266 | 407 |
| Small grain | _____ | 74 | 61 | 115 |
| Commercial feeds | _____ | 57 | 47 | 61 |
| Total concentrates | _____ | 458 | 374 | 583 |
| Skim milk, buttermilk and whey | _____ | 13 | 17 | 48 |
| Feed cost per cwt. hogs produced: | | | | |
| Concentrates | \$ _____ | \$10.57 | \$ 8.60 | \$13.27 |
| Skim milk, buttermilk and whey | _____ | .04 | .07 | .11 |
| Pasture | _____ | .06 | .07 | .04 |
| TOTAL FEED COSTS | \$ _____ | \$10.67 | \$ 8.74 | \$13.42 |
| Net increase in value per cwt. hogs produced | \$ _____ | \$17.96 | \$19.58 | \$16.71 |
| RETURNS ABOVE FEED COST PER CWT. HOGS PRODUCED | \$ _____ | \$ 7.29 | \$10.84 | \$ 3.29 |
| RETURNS FOR \$100 OF FEED | \$ _____ | \$ 176 | \$ 233 | \$ 127 |
| Price received per cwt. hogs sold | \$ _____ | \$17.76 | \$18.26 | \$17.45 |
| No. of spring litters raised | _____ | 13.1 | 12.6 | 10.2 |
| No. of fall litters raised | _____ | 9.2 | 8.4 | 7.6 |
| Total no. of litters raised | _____ | 22.3 | 21.0 | 17.8 |
| No. of pigs born per litter | _____ | 8.6 | 8.8 | 7.8 |
| No. of pigs weaned per litter | _____ | 6.5 | 7.7 | 6.0 |
| Pounds of hogs produced | _____ | 36450 | 34781 | 27180 |

Table 16. Factors of Cost and Returns from Dairy Cows, 1957

| Items | Your farm | Average of 134 farms | 27 farms highest in butterfat per cow | 27 farms lowest in butterfat per cow |
|----------------------------------|-----------|----------------------|---------------------------------------|--------------------------------------|
| Pounds of butterfat per cow | | 339 | 415 | 248 |
| Pounds of milk per cow* | | 9481 | 11316 | 7026 |
| % of butterfat in milk | | 3.7 | 3.7 | 3.7 |
| Price rec. per lb. B.F. sold (¢) | | 92.5 | 95.4 | 87.0 |
| As manufacturing cream (cents) | | 67.2 | - | 67.8 |
| Whole milk (cents) | | 95.0 | 95.4 | 91.4 |
| Price rec. per cwt. milk sold* | | \$ 3.43 | \$ 3.51 | \$ 3.38 |
| Feeds per cow, lbs.: | | | | |
| Corn | | 1923 | 2509 | 1545 |
| Small grain | | 728 | 1002 | 457 |
| Commercial feeds | | 437 | 501 | 298 |
| Legume hay | | 5037 | 5154 | 4444 |
| Other hay | | 327 | 531 | 137 |
| Fodder and stover | | 8 | - | 42 |
| Total concentrates | | 3088 | 4012 | 2300 |
| Total hay and fodder | | 5372 | 5685 | 4623 |
| Silage | | 6828 | 7381 | 6459 |
| Feed cost per cow: | | | | |
| Concentrates | | \$ 66.85 | \$ 85.37 | \$ 49.14 |
| Roughages | | 65.20 | 67.85 | 57.49 |
| Pasture | | 10.95 | 10.09 | 11.73 |
| TOTAL FEED COST | | \$143.00 | \$163.31 | \$118.36 |
| Value of produce per cow: | | | | |
| Dairy product sales | | \$302.54 | \$382.92 | \$204.38 |
| Dairy produce used in home | | 4.79 | 4.17 | 5.54 |
| Milk to livestock | | 7.19 | 8.06 | 7.40 |
| Net increase in value of cows | | -3.29 | -3.00 | -1.27 |
| TOTAL VALUE PRODUCED | | \$311.23 | \$392.15 | \$216.05 |
| RETURNS ABOVE FEED COST PER COW | | \$168.23 | \$228.84 | \$ 97.69 |
| RETURNS FOR \$100 OF FEED | | \$222 | \$246 | \$187 |
| Feed cost per lb. B.F. (cents) | | 42.2 | 39.4 | 47.7 |
| Number of cows** | | 24.9 | 25.6 | 20.7 |

* Average for farms selling whole milk

** All dairy cows which have at some time in the past freshened are included in the dairy herd, and affect the average number of cows used in computing this table. There is some variation in the number of months of dry period per cow; however, this variation is small for the majority of farms.

Table 17. Feed Costs and Returns from Other Dairy Cattle, 1957

| Items | Your farm | Average of 134 farms | 27 farms highest in butterfat per cow | 27 farms lowest in butterfat per cow |
|---|--------------|----------------------------|--|---|
| Feed per head, lbs: | | | | |
| Concentrates | | 699 | 883 | 614 |
| Hay and fodder | | 2199 | 2312 | 2009 |
| Silage | | 1906 | 2339 | 1970 |
| Skim milk | | 33 | - | 153 |
| Whole milk | | 234 | 232 | 214 |
| TOTAL FEED COSTS PER HEAD | | \$ 51.93 | \$ 56.70 | \$ 48.40 |
| Net inc. in value of other dairy cattle | | 77.59 | 89.12 | 63.56 |
| RETURNS ABOVE FEED COST PER HEAD | | 25.66 | 32.42 | 15.16 |
| RETURNS FOR \$100 OF FEED | | \$164 | \$169 | \$152 |
| Number of head of other dairy cattle | | 25.9 | 28.8 | 22.1 |

Table 18. Feed Costs and Returns from All Dairy Cattle, 1957

| Items | Your farm | Average of 134 farms | 27 farms highest in butterfat per cow | 27 farms lowest in butterfat per cow |
|--------------------------------------|--------------|----------------------------|--|---|
| Feeds per animal unit, lbs.: | | | | |
| Concentrates | | 2506 | 3216 | 1932 |
| Hay and fodder | | 5007 | 5260 | 4411 |
| Silage | | 5804 | 6338 | 5611 |
| TOTAL FEED COSTS PER ANIMAL UNITS | | \$124.59 | \$139.57 | \$106.22 |
| Value of produce per animal unit: | | | | |
| Dairy products | | \$203.97 | \$250.09 | \$138.92 |
| Net increase in val. of dairy cattle | | 49.80 | 59.24 | 41.41 |
| TOTAL VALUE PRODUCED | | \$253.77 | \$309.33 | \$180.33 |
| RETURNS ABOVE FEED PER ANIMAL UNIT | | \$129.18 | \$169.76 | \$ 74.11 |
| RETURNS PER \$100 OF FEED | | \$207 | \$226 | \$172 |
| Animal units of dairy cattle | | 37.9 | 40.3 | 31.8 |

Table 19. Feed Costs and Returns from Beef Cattle, 1957

| Items | Your farm | Average of all farms |
|---|--------------|----------------------------|
| Beef breeding herd: No. of farms: | | 11 |
| Feeds per animal unit, lbs.: | | |
| Concentrates | _____ | 1508 |
| Legume | _____ | 3669 |
| Other hay | _____ | 705 |
| Silage | _____ | 4721 |
| Feed Cost per animal unit: | | |
| Concentrates | \$ _____ | \$32.48 |
| Roughages | _____ | 50.07 |
| Pasture | _____ | 16.59 |
| TOTAL FEED COST | \$ _____ | \$99.14 |
| Value of produce per animal unit: | | |
| Dairy products | \$ _____ | \$ 4.04 |
| Net increase in value of animal | _____ | 136.31 |
| TOTAL VALUE PRODUCED | \$ _____ | \$140.35 |
| RETURNS ABOVE FEED COST PER ANIMAL UNITS | \$ _____ | 41.21 |
| RETURNS FOR \$100 OF FEED | \$ _____ | \$150 |
| Lbs. beef produced | _____ | 17484 |
| Number of cows and herd bulls | _____ | 22.7 |
| Number of other beef cattle | _____ | 32.0 |
| Number of animal units in the herd | _____ | 28.7 |
| Feeding Cattle: No. of farms: | | 25 |
| Feeds per cwt. beef produced, lbs.: | | |
| Corn | _____ | 612 |
| Small grain | _____ | 24 |
| Commercial feeds | _____ | 51 |
| Legume hay | _____ | 416 |
| Other hay | _____ | 41 |
| Total concentrate | _____ | 687 |
| Total hay and fodder | _____ | 457 |
| Silage | _____ | 974 |
| Feed cost per cwt. beef produced | | |
| Concentrates | \$ _____ | \$14.50 |
| Roughages | _____ | 6.67 |
| Pasture | _____ | .34 |
| TOTAL FEED COSTS | \$ _____ | \$21.51 |
| Net increase in value of feeders | _____ | 29.17 |
| RETURNS ABOVE FEED COST PER CWT. BEEF PROD. | _____ | 7.66 |
| RETURNS FOR \$100 OF FEED | \$ _____ | \$160 |
| Price paid per cwt. beef bought | \$ _____ | \$20.41 |
| Price received for feeder cattle sold | _____ | 19.78 |
| Number of animal units | _____ | 42.2 |
| Pounds of beef produced | _____ | 20719 |

Table 20. Feed Costs and Returns from a Farm Flock of Sheep. 1957

| Items | Your farm | Average of 20 farms | 10 farms highest in returns above feed | 10 farms lowest in returns above feed |
|----------------------------------|--------------|---------------------------|---|--|
| Feeds per head,* lbs.: | | | | |
| Concentrates | _____ | 76 | 39 | 112 |
| Legume hay | _____ | 382 | 283 | 482 |
| Other hay | _____ | 4 | 2 | 6 |
| Silage | _____ | 98 | 63 | 133 |
| Feed Cost per head: | | | | |
| Concentrates | \$ _____ | \$ 1.53 | \$.81 | \$ 2.26 |
| Roughages | _____ | 3.59 | 2.62 | 4.56 |
| Pasture | _____ | 2.49 | 2.68 | 2.30 |
| TOTAL FEED COSTS | \$ _____ | \$ 7.61 | \$ 6.11 | \$ 9.12 |
| Value of produce per head: | | | | |
| Wool | \$ _____ | \$ 5.00 | \$ 5.23 | \$ 4.78 |
| Net increase in value of sheep | _____ | 8.34 | 10.13 | 6.55 |
| TOTAL VALUE PRODUCED | \$ _____ | \$13.34 | \$15.36 | \$11.33 |
| RETURNS ABOVE FEED COST PER HEAD | \$ _____ | \$ 5.73 | \$ 9.25 | \$ 2.21 |
| RETURNS FOR \$100 OF FEED | \$ _____ | \$219 | \$291 | \$147 |
| Price per cwt. of lambs sold | \$ _____ | \$20.76 | \$20.23 | \$21.29 |
| Price per lb. wool sold (cts.) | _____ | 63.0 | 65.9 | 60.2 |
| Pounds of wool per sheep sheared | _____ | 9.8 | 9.7 | 9.8 |
| Number of ewes kept for lambing | _____ | 30 | 23 | 38 |
| Per cent lamb crop** | _____ | 91 | 98 | 84 |
| Per cent death loss** | _____ | 9.1 | 8.5 | 9.7 |
| Pounds of sheep produced | _____ | 2689 | 1789 | 3589 |
| Number of head of sheep* | _____ | 43.3 | 32.8 | 53.8 |

* Two lambs under six months of age considered as one head.

** Lambs which die during month of birth are not included.

Table 21. Feed Costs and Returns from Chickens, 1957*

| Items | Your farm | Average of 94 farms | 19 farms highest in return above feed | 19 farms lowest in return above feed |
|--------------------------------------|--------------|---------------------------|--|---|
| Feed per hen, lbs.: | | | | |
| Grain | _____ | 89 | 94 | 88 |
| Commercial feeds | _____ | 40 | 34 | 41 |
| Total concentrates | _____ | 129 | 128 | 129 |
| TOTAL FEED COST PER HEN | \$ _____ | \$3.68 | \$3.68 | \$3.77 |
| Value of produce per hen: | | | | |
| Eggs sold and used in house | \$ _____ | \$4.88 | \$6.06 | \$3.64 |
| Net increase in value of chickens | _____ | .02 | -.57 | -.44 |
| TOTAL VALUE PRODUCED | \$ _____ | \$4.90 | \$6.63 | \$3.20 |
| RETURNS ABOVE FEED COST PER HEN | \$ _____ | \$1.22 | \$2.95 | \$-.57 |
| RETURNS FOR \$100 OF FEED | \$ _____ | \$136 | \$184 | \$ 86 |
| Price rec'd. per doz.eggs sold(cts.) | _____ | 29.8 | 30.7 | 29.2 |
| Eggs laid per hen | _____ | 198 | 239 | 150 |
| Ave. no. of hens on farm during year | _____ | 345 | 407 | 252 |
| Per cent of hens that are pullets | _____ | 76 | 92 | 64 |
| Per cent death loss of hens | _____ | 12 | 10 | 14 |
| Number of chicks started: | | | | |
| Pullets | _____ | 372 | 628 | 220 |
| Straight run | _____ | - | - | - |
| Cockerels | _____ | 47 | 99 | 27 |
| Lbs. chickens produced | _____ | 1391 | 2590 | 681 |

* Includes feeds and returns from laying flock and rearing flock.

Table 22. Feed Cost and Returns from Laying Hens, 1957

| Items | Your farm | Average of 43 farms | 11 farms highest in eggs per hen | 11 farms lowest in eggs per hen |
|--------------------------------------|--------------|---------------------------|---|--|
| Feed per hen, lbs.: | | | | |
| Grain | _____ | 74 | 71 | 74 |
| Commercial feeds | _____ | 32 | 34 | 24 |
| Total concentrates | _____ | 106 | 105 | 98 |
| TOTAL FEED COST PER HEN | \$ _____ | \$3.06 | \$3.19 | \$2.68 |
| Value of produce per hen: | | | | |
| Eggs sold and used in home | \$ _____ | \$5.05 | \$6.08 | \$3.72 |
| Less depreciation and death loss | _____ | -.83 | -1.01 | -.49 |
| TOTAL VALUE PRODUCED | \$ _____ | \$4.22 | \$5.07 | \$3.23 |
| RETURN ABOVE FEED COST PER HEN | \$ _____ | 1.16 | 1.88 | .55 |
| RETURN FOR \$100 OF FEED | \$ _____ | \$138 | \$159 | \$121 |
| Eggs laid per hen | _____ | 205 | 248 | 158 |
| Price rec'd. per doz.eggs sold(cts.) | _____ | 29.7 | 29.7 | 28.3 |
| Ave. no. hens on farm during year | _____ | 402 | 463 | 294 |
| No. of hens on hand begin. of year | _____ | 410 | 364 | 310 |
| Per cent death loss | _____ | 13 | 11 | 16 |
| Per cent of hens that are pullets | _____ | 74 | 95 | 41 |

Table 23. Feed Costs and Returns from Chicks, 1957

| Items | Your farm | Average of 28 farms |
|---------------------------------------|-----------|---------------------|
| Feed per 100 chicks raised, lbs.: | | |
| Grain | _____ | 1564 |
| Commercial feeds | _____ | 1053 |
| Total concentrates | _____ | 2617 |
| Total feed cost per 100 chicks raised | \$ _____ | \$83.18 |
| Net increase in value per 100 chicks | _____ | 92.92 |
| RETURN OVER FEED COST PER 100 CHICKS | \$ _____ | 9.74 |
| RETURN FOR \$100 OF FEED | \$ _____ | \$112 |
| Number of chicks bought: | | |
| Pullets | _____ | 628 |
| Straight run | _____ | 5 |
| Cockerels | _____ | 85 |
| Price paid per 100 chicks bought: | | |
| Pullets | \$ _____ | \$51.64 |
| Cockerels | _____ | 4.91 |
| Number of chicks raised | _____ | 612 |
| Per cent death loss | _____ | 13.1 |
| Price rec'd. per pound sold (cents) | _____ | 23.6 |

EXPLANATION OF "WORK UNITS"

The total "work units" for any one farm is a measure of the size of that farm business. A work unit as used in this report is the average accomplishment of a farm worker, in a ten hour day, working on crops and productive livestock at average efficiency or ten hours of work off the farm for pay. The number of work units for each class of livestock and each acre of crop are presented in Table 24.

Table 24. Number of Work Units for Each Class of Livestock and Each Acre of Crop

| Item | No. of work units | Item | No. of work units |
|-------------------------------|-------------------|-----------------|-------------------|
| Dairy and dual pur. cows | 10.0 per cow | Small grain | .5 per acre |
| Other dairy & du. pur. cattle | 3.5 per an. unit* | Sugar beets | 1.5 per acre |
| Beef breeding herd | 3.5 per an. unit* | Sweet corn | .7 per acre |
| Feeder cattle | .25 per 100 lbs. | Corn husked | .7 per acre |
| Sheep - farm flock | 1.5 per an. unit* | Corn hogged | .4 per acre |
| Sheep - feeder | .3 per 100 lbs. | Corn shredded | 1.5 per acre |
| Hogs | .2 per 100 lbs. | Corn silage | 1.0 per acre |
| Turkeys | .5 per 100 lbs. | Corn fodder | 1.0 per acre |
| Hens | 20.0 per 100 hens | Alfalfa hay | .6 per acre |
| Canning peas | .5 per acre | Soybean hay | .8 per acre |
| Soybeans for grain | .5 per acre | Other hay crops | .4 per acre |

* Animal unit represents one dairy cow or bull, two other dairy cattle, $1\frac{1}{2}$ beef cows or bull, 1 feeder steer or heifer, $3\frac{1}{3}$ other beef cattle, 7 sheep, 14 lambs, $2\frac{1}{2}$ hogs, 5 pigs, 50 hens or 1,100 pounds of turkeys produced.

Summary by Years

| | Average 1928-29 | Average 1930-34 | Average 1935-39 | Average 1940-44 | Average 1945-49 | Average 1950-54 | 1954 | 1955 | 1956 | 1957 |
|---------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------|---------|---------|---------|
| Number of farms | 148 | 140 | 149 | 177 | 169 | 162 | 166 | 165 | 165 | 165 |
| Acres in farm | 170 | 199 | 218 | 227 | 223 | 226 | 228 | 226 | 231 | 229 |
| Crop acres in farm | 116 | 136 | 147 | 148 | 148 | 155 | 154 | 156 | 159 | 164 |
| Farm inventory | \$24574 | \$19851 | \$20286 | \$25912 | \$31402 | \$42663 | \$44063 | \$45086 | \$46305 | \$48215 |
| <hr/> | | | | | | | | | | |
| Farm earnings | | | | | | | | | | |
| FARM EXPENSES | | | | | | | | | | |
| Cattle bought | \$ 141 | \$ 83 | \$ 213 | \$ 441 | \$ 485 | \$ 902 | \$ 696 | \$ 750 | \$ 947 | \$ 957 |
| Hogs bought | 85 | 52 | 72 | 154 | 194 | 202 | 245 | 139 | 177 | 206 |
| Sheep bought | 6 | 14 | 94 | 64 | 64 | 35 | 53 | 155 | 89 | 103 |
| Poultry bought | 37 | 41 | 80 | 142 | 176 | 154 | 152 | 145 | 120 | 162 |
| Horses bought | 36 | 33 | 43 | 32 | 14 | 6 | 4 | 6 | 5 | 5 |
| Misc. livestock expense | 66 | 64 | 94 | 124 | 228 | 359 | 411 | 433 | 476 | 508 |
| Misc. crop expenses | 186 | 160 | 222 | 301 | 701 | 1010 | 1224 | 1344 | 1280 | 1509 |
| Feed bought | 440 | 313 | 535 | 1273 | 1954 | 2241 | 2406 | 2348 | 2491 | 2675 |
| Custom work hired | - | - | - | 165 | 401 | 552 | 618 | 649 | 688 | 761 |
| Power mach. (new & exp.) | 399 | 321 | 559 | 717 | 1562 | 2028 | 1892 | 2078 | 2250 | 2433 |
| Mach. and equip. (new) | 190 | 122 | 281 | 392 | 845 | 1231 | 1065 | 827 | 1195 | 1687 |
| Mach. and equip. (upkeep) | 72 | 55 | 67 | 144 | 280 | 350 | 356 | 392 | 432 | 484 |
| Bldgs., fencing (new) | 130 | 81 | 245 | 331 | 778 | 983 | 751 | 747 | 807 | 979 |
| Bldgs., fencing (upkeep) | 52 | 32 | 79 | 188 | 323 | 368 | 324 | 263 | 305 | 310 |
| Hired labor | 272 | 243 | 398 | 585 | 849 | 857 | 799 | 828 | 878 | 939 |
| Taxes and insurance | 298 | 313 | 281 | 303 | 449 | 736 | 820 | 844 | 921 | 967 |
| General farm expense | 30 | 28 | 35 | 52 | 93 | 136 | 149 | 146 | 162 | 175 |
| Total farm purchases | \$2440 | \$1955 | \$3298 | \$5408 | \$9396 | \$12150 | \$11965 | \$12094 | \$13223 | \$14860 |
| Decrease in farm capital | - | 230 | - | - | - | - | - | 862 | - | - |
| Board to hired labor | 102 | 87 | 145 | 158 | 174 | 166 | 126 | 140 | 130 | 133 |
| Interest on farm capital | 1228 | 992 | 1014 | 1296 | 1570 | 2133 | 2203 | 2254 | 2315 | 2411 |
| Unpaid family labor | 358 | 261 | 239 | 326 | 511 | 496 | 514 | 543 | 526 | 545 |
| Total farm expenses | \$4128 | \$3525 | \$4696 | \$7188 | \$11651 | \$14945 | \$14808 | \$15893 | \$16194 | \$17949 |

Summary by Years (continued)

| | Average 1928-29 | Average 1930-34 | Average 1935-39 | Average 1940-44 | Average 1945-49 | Average 1950-54 | 1954 | 1955 | 1956 | 1957 |
|------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------|---------|---------|---------|
| FARM RECEIPTS | | | | | | | | | | |
| Cattle | \$ 753 | \$ 431 | \$ 713 | \$ 1335 | \$ 2022 | \$ 2981 | \$ 2769 | \$ 2688 | \$ 2781 | \$ 3267 |
| Dairy products | 1662 | 1188 | 1451 | 2138 | 4080 | 4702 | 4916 | 5145 | 5934 | 6308 |
| Hogs | 1164 | 793 | 1074 | 2517 | 3598 | 4253 | 4051 | 3525 | 3717 | 4610 |
| Sheep and wool | 52 | 60 | 200 | 186 | 232 | 171 | 188 | 327 | 237 | 247 |
| Poultry | 140 | 166 | 381 | 629 | 672 | 354 | 274 | 349 | 197 | 306 |
| Eggs | 275 | 243 | 372 | 751 | 1319 | 1297 | 1115 | 1350 | 1276 | 989 |
| Horses | 30 | 27 | 55 | 34 | 20 | 14 | 12 | 9 | 15 | 11 |
| Corn | 37 | 62 | 153 | 121 | 335 | 766 | 1238 | 1682 | 2004 | 2002 |
| Small grain | 241 | 177 | 357 | 278 | 659 | 495 | 352 | 366 | 378 | 363 |
| Other crops | 163 | 155 | 174 | 455 | 819 | 853 | 970 | 1226 | 1390 | 1456 |
| Income from labor off farm | 102 | 118 | 168 | 141 | 178 | 182 | 204 | 287 | 268 | 327 |
| Agric. adj. payments | 0 | 74 | 230 | 254 | 58 | 59 | 52 | 43 | 59 | 47 |
| Miscellaneous | 134 | 138 | 247 | 282 | 470 | 625 | 483 | 471 | 642 | 722 |
| Total farm sales | \$4753 | \$3632 | \$5575 | \$9121 | \$14462 | \$16752 | \$16624 | \$17468 | \$18898 | \$20655 |
| Increase in farm capital | 617 | - | 524 | 921 | 1411 | 1905 | 988 | - | 1656 | 1178 |
| Family living from farm | 325 | 232 | 273 | 566 | 715 | 620 | 334 | 318 | 290 | 286 |
| Total farm receipts | \$5695 | \$3864 | \$6372 | \$10608 | \$16588 | \$19277 | \$17946 | \$17786 | \$20844 | \$22119 |
| Total farm expenses | 4128 | 3525 | 4696 | 7188 | 11651 | 14945 | 14808 | 15893 | 16194 | 17949 |
| Operator's earnings | 1567 | 339 | 1676 | 3420 | 4937 | 4332 | 3138 | 1893 | 4650 | 4170 |
| MISCELLANEOUS ITEMS | | | | | | | | | | |
| Yield per acre: | | | | | | | | | | |
| Corn (bu.) | 44.8 | 43.4 | 47.2 | 55.7 | 47.6 | 59.8 | 69.6 | 67.5 | 78.6 | 76.8 |
| Barley (bu.) | 36.0 | 26.2 | 28.7 | 24.8 | 30.8 | 29.1 | 31.4 | 37.3 | 33.8 | 39.2 |
| Oats (bu.) | 46.0 | 40.0 | 43.4 | 44.2 | 48.2 | 32.8 | 46.4 | 55.3 | 50.1 | 54.7 |
| Alfalfa (tons) | 3.0 | 2.3 | 2.3 | 2.4 | 2.3 | 2.7 | 2.8 | 3.0 | 2.9 | 2.7 |
| Percent high return crops | 31.9 | 35.8 | 41.0 | 43.3 | 50.9 | 62.8 | 65.1 | 68.0 | 68.9 | 56.6 |
| A.U. livestock per 100 acres | 19.2 | 20.6 | 19.3 | 24.5 | 22.8 | 28.9 | 31.5 | 33.9 | 32.7 | 33.4 |
| Number of work units | 599 | 747 | 777 | 670 | 601 | 535 | 455 | 472 | 475 | 490 |
| Work units per worker | 310 | 338 | 341 | 305 | 300 | 284 | 253 | 268 | 264 | 272 |
| Expenses per work unit | \$1.76 | \$1.26 | \$1.37 | \$2.35 | \$4.69 | \$8.18 | \$11.76 | \$9.87 | \$10.23 | \$10.69 |
| Number of milk cows | 14.2 | 17.8 | 17.8 | 17.6 | 17.0 | 17.7 | 18.9 | 19.0 | 19.6 | 20.3 |

Summary by Years (continued)

| | Average 1928-29 | Average 1930-34 | Average 1935-39 | Average 1940-44 | Average 1945-49 | Average 1950-54 | 1954 | 1955 | 1956 | 1957 |
|------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----------|----------|----------|----------|
| <u>Misc. Items (continued)</u> | | | | | | | | | | |
| No. of litters of pigs | 9.3 | 10.8 | 9.5 | 14.4 | 11.7 | 13.5 | 12.6 | 15.7 | 14.5 | 16.2 |
| Lbs. of hogs produced | 12706 | 15153 | 13438 | 21586 | 18505 | 17579 | 19380 | 24852 | 24220 | 26544 |
| No. of head of sheep | 7.0 | 13.5 | 18.8 | 15.8 | 10.8 | 10.4 | 11.2 | 12.0 | 9.1 | 7.8 |
| No. of hens | 136 | 169 | 182 | 222 | 235 | 219 | 220 | 238 | 236 | 204 |
| Lbs. of BF per dairy cow | 244 | 240 | 238 | 252 | 278 | 308 | 311 | 320 | 340 | 339 |
| Lbs. of BF per dual pur. cow | - | - | - | 185 | 181 | 189 | 170 | 185 | 235 | - |
| Pigs weaned per litter | 6.3 | 6.1 | 6.4 | 6.2 | 6.5 | 6.7 | 6.9 | 6.9 | 7.1 | 6.5 |
| No. of eggs laid per hen | 95 | 114 | 131 | 145 | 177 | 194 | 196 | 204 | 203 | 198 |
| <u>PRICE RECEIVED PER:</u> | | | | | | | | | | |
| Pounds BF sold as cream | \$.52 | \$.28 | \$.34 | \$.47 | \$.80 | \$.75 | \$.68 | \$.64 | \$.65 | \$.67 |
| Cwt. hogs sold | 8.92 | 4.98 | 8.26 | 10.93 | 19.36 | 19.54 | 21.08 | 14.45 | 14.45 | 17.76 |
| Cwt. feeder cattle sold | - | - | - | 11.55 | 20.56 | 26.22 | 20.30 | 18.45 | 18.13 | 19.78 |
| Pounds wool sold | .36 | .16 | .25 | .39 | .43 | .58 | .50 | .40 | .54 | .63 |
| Dozen eggs sold | .28 | .16 | .19 | .27 | .39 | .37 | .31 | .34 | .33 | .30 |
| <u>RETURN ABOVE FEED COST PER:</u> | | | | | | | | | | |
| Dairy cow | \$76.50 | \$28.15 | \$49.95 | \$81.83 | \$161.27 | \$156.86 | \$117.56 | \$123.74 | \$157.31 | \$168.23 |
| Dual purpose cow | - | - | - | 51.55 | 104.25 | 74.71 | 14.91 | 38.40 | 87.07 | - |
| Cwt. hogs produced | 1.50 | .48 | 2.98 | 3.93 | 6.09 | 6.47 | 6.58 | 1.22 | 4.61 | 7.29 |
| Head of sheep | 5.50 | .81 | 2.82 | 4.63 | 7.13 | 6.44 | 1.94 | 2.35 | 4.07 | 5.73 |
| Hen | 1.82 | .99 | 1.12 | 1.82 | 2.11 | 1.60 | .18 | 2.11 | 1.46 | 1.22 |
| <u>FEED COST PER:</u> | | | | | | | | | | |
| Dairy cow | \$69.50 | \$47.30 | \$44.93 | \$63.13 | \$123.22 | \$142.59 | \$142.54 | \$148.41 | \$146.38 | \$143.00 |
| Dual purpose cow | - | - | - | 52.08 | 84.51 | 100.38 | 101.09 | 112.94 | 106.14 | - |
| Cwt. hogs produced | 7.66 | 4.21 | 5.10 | 7.52 | 13.23 | 12.95 | 12.36 | 10.96 | 11.26 | 10.67 |
| Head of sheep | 2.82 | 2.23 | 2.62 | 3.30 | 5.17 | 7.38 | 8.00 | 8.27 | 9.38 | 7.61 |
| Hen | 1.62 | 1.13 | 1.57 | 2.38 | 4.39 | 4.76 | 4.70 | 4.03 | 4.11 | 3.68 |
| <u>PRICE OF FEED:</u> | | | | | | | | | | |
| Corn (per bu.) | \$.70 | \$.45 | \$.59 | \$.71 | \$1.29 | \$1.31 | \$1.34 | \$1.23 | \$1.25 | \$1.10 |
| Barley (per bu.) | .60 | .42 | .49 | .59 | 1.31 | 1.16 | 1.02 | .93 | .94 | .91 |
| Oats (per bu.) | .48 | .26 | .28 | .46 | .75 | .74 | .70 | .61 | .63 | .61 |
| Bran (per cwt.) | 1.70 | .98 | 1.22 | 1.80 | 2.76 | 3.06 | 2.85 | 2.65 | 2.55 | 2.50 |
| Oilmeal (per cwt.) | 3.00 | 1.96 | 2.12 | 2.30 | 3.84 | 4.19 | 4.20 | 4.10 | 3.70 | 3.50 |
| Alfalfa (per ton) | 14.75 | 11.10 | 9.30 | 9.90 | 18.40 | 18.30 | 17.00 | 18.00 | 18.50 | 17.00 |

Foot note for pages 22, 23, and 24.

The values of farm real estate in 1931 were reduced approximately 25 percent from 1928-1930 values. The values in 1932 were reduced about 29 percent from the 1931 values. Only land was affected by the reduction in 1931, but in 1932 buildings and improvements were cut 25 percent. In 1936 the values of land were adjusted upward 10 percent. The value of dairy cows was also adjusted downward in 1932 and upward in 1936. The capital losses were not included in the inventory decreased in the financial statement but the changes in valuation resulted in variations in the interest charge. No changes in the basis of inventory valuations were made in the years 1933 to 1935 and 1937 to 1957.

The charges for unpaid family labor and board for hired labor were also changed from year to year. The rates used for the period 1928 to 1957 were as follows:

| <u>Year</u> | <u>Unpaid family labor</u> | <u>Board for hired labor</u> | <u>Year</u> | <u>Unpaid family labor</u> | <u>Board for hired labor</u> |
|-------------|--------------------------------|----------------------------------|-------------|--------------------------------|----------------------------------|
| 1928-30 | \$60 | \$20 | 1941 | \$50 | \$20 |
| 1931 | 40 | 15 | 1942 | 60 | 25 |
| 1932-34 | 30 | 10 | 1943 | 75 | 25 |
| 1935 | 40 | 15 | 1944 | 85 | 25 |
| 1936 | 43 | 18 | 1945 | 90 | 25 |
| 1937-40 | 45 | 18 | 1946 | 100 | 30 |
| | | | 1947-55 | 125 | 36 |
| | | | 1956-57 | 130 | 38 |

Several changes were made in the 1940 records. The value of the house, which had previously been omitted from the farm business, was included and a rental charge equal to 10 percent of the average value of the house was included with the farm perquisites. The standards used in the calculation of work units were changed in accordance with the new information made available. This latter change also affected the work units per worker and the factor of expense per work unit. The acres in protected woodlots, roads, waste, and farmstead were omitted from the acreage used in the calculation of amount of livestock per 100 acres. Several new livestock statements were added. Cattle were classified into two groups: "specialized dairy cattle" and "dual purpose cattle." Statements for beef breeding cattle, feeder cattle, and feeder sheep were also included.

The crop ratings used in calculating the percentage of the tillable land in high return crops were changed considerably in 1944 and 1957 and the animal unit equivalents were changed in 1951.

The standards used in the calculation of work units were changed in 1953. Also the value of the house, which had been included in the investment of the farm buildings since 1940, was omitted from all the records except the net worth statements.

These adjustments should be considered in comparing 1957 results with previous years.