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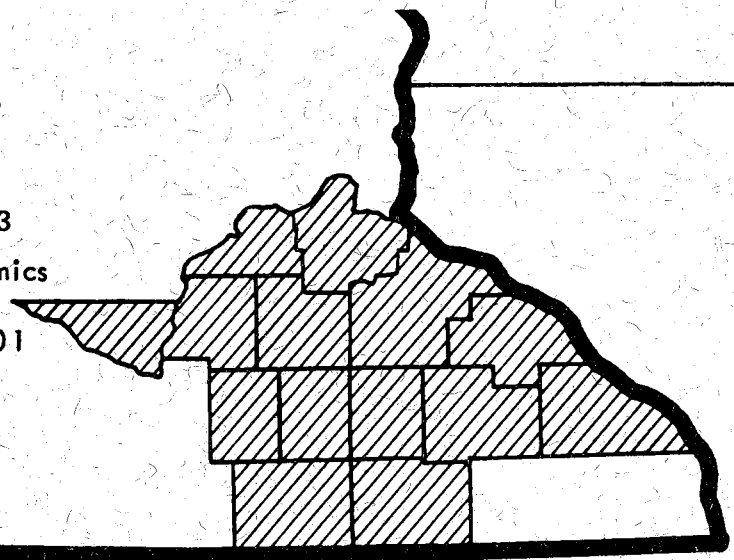
1970
annual report



**Southeastern Minnesota
Farm Management Association**

COOPERATING AGENCIES:

University of Minnesota, Institute of Agriculture
United States Department of Agriculture, Agricultural Research Service
County Extension Services of the 14 Southeastern Counties
Southeastern Minnesota Farm Management Association



Economic Information Report R 71-3
Department of Agricultural Economics
Institute of Agriculture
St. Paul, Minnesota 55101
May 1971

1970 ANNUAL REPORT OF THE SOUTHEASTERN MINNESOTA FARM MANAGEMENT ASSOCIATION

Prepared by T. R. Nodland and Janet B. Otis*

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INTRODUCTION

The Department of Agricultural and Applied 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 Southeastern Minnesota Farm Management Association in maintaining a farm management service. The Southeast Minnesota Farm Management Service was organized in 1927 and began operations 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.

900/5/71

* The authors are indebted to Barbara Miller, Dorothy Spreck and Eileen Miley for their assistance in the preparation of this report.

The analysis of the records and the preparation of the report are handled by the Department of Agricultural and Applied Economics under the direction of T. R. Nodland. Extension work in connection with the supervision of the project is handled by Ed Becker. Harvey Bjerke was the field agent for this project. At the end of the year, Kenneth Thomas, of the Agricultural Extension Service, and Mervin Freeman, Area Farm Management Agent at Rochester, Minnesota, aided in closing the records.

The following tabulation shows by counties the number of records submitted, the officers of the Association, and the county agricultural extension agents who cooperated in 1970.

| County | No. of records | Association Officers | County Agricultural Extension Agent |
|----------|----------------|--|-------------------------------------|
| Dakota | 10 | John Harkness, Director | Clarence O. Quie |
| Dodge | 11 | Lowell Wright, Director | David H. Hanson |
| Freeborn | 12 | Jacob Kuiters, President | Eldon H. Senske |
| Goodhue | 23 | Dale Hayward, Director | Richard C. Walter |
| Le Sueur | 8 | Donald Gibbs, Director | Robert Leary |
| Mower | 4 | R. L. Zimmerman, Director | Harlan L. Johnsrud |
| Nicollet | 7 | Jerry Kuehn, Director | F. E. Wetherill |
| Olmsted | 12 | Franklin Till, Director | Don Untiedt |
| Rice | 7 | John Holmes, Director | Warren Liebenstein |
| Scott | 9 | Arnie Schoenbauer, Secretary-Treas. Lester Ruehling | David Hart |
| Steele | 12 | Glen Schuelke, Vice-President | J. R. Gute |
| Wabasha | 10 | Kenneth Steffen, Director | Matthias Metz |
| Waseca | 2 | Edwin Ewert, Director | Roger Wilkowske |
| Winona | 8 | Norman Luehmann, Director | Harry B. Burcalow |
| Total | 135 | | |

The data for 113 farms are shown in the tables on succeeding pages. Twenty-two farms were omitted from all averages in the tables because the records were not sufficiently complete for a full summarization or the records were not returned for summarization 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, however, 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, 1970*

| Item | Average of 113 farms | |
|---------------------------------|----------------------|----------------|
| | Jan. 1 | Dec. 31 |
| Size of farm (acres) | 307 | |
| Size of business (work units)** | 431 | |
| Dairy cows | \$ 5749 | \$ 6222 |
| Other dairy cattle | 3759 | 4155 |
| Beef cattle (incl. feeders) | 2197 | 1840 |
| Hogs | 3940 | 2863 |
| Sheep (incl. feeders) | 71 | 62 |
| Poultry (incl. turkeys) | 47 | 53 |
| Productive livestock total | <u>\$15763</u> | <u>\$15195</u> |
| Horses | \$ 7 | \$ 6 |
| Crop, seed and feed | \$12590 | \$14741 |
| Auto and truck (farm share) | \$ 1942 | \$ 2075 |
| Tractors and crop machinery | 12249 | 13087 |
| Livestock equipment | 3286 | 3589 |
| Machinery and equipment total | <u>\$17477</u> | <u>\$18751</u> |
| Land | \$36985 | \$36985 |
| Buildings, fences, etc. | <u>\$22995</u> | <u>\$23953</u> |
| Total farm capital managed | \$105817 | \$109631 |

| Item | 23 most profitable | | 23 least profitable | |
|-------------------------------|--------------------|----------------|---------------------|----------------|
| | Jan. 1 | Dec. 31 | Jan. 1 | Dec. 31 |
| Size of farm (acres) | 418 | | 271 | |
| Size of business (work units) | 545 | | 326 | |
| Dairy cows | \$ 6406 | \$ 6881 | \$ 3514 | \$ 3547 |
| Other dairy cattle | 4541 | 5099 | 1740 | 1671 |
| Beef cattle (incl. feeders) | 975 | 852 | 3243 | 3390 |
| Hogs | 6189 | 5051 | 4576 | 2732 |
| Sheep (incl. feeders) | 15 | 16 | 47 | 40 |
| Poultry (incl. turkeys) | 71 | 82 | 67 | 52 |
| Productive livestock total | <u>\$18197</u> | <u>\$17981</u> | <u>\$13187</u> | <u>\$11432</u> |
| Horses | \$ 2 | \$ 2 | \$ - | \$ - |
| Crop, seed and feed | \$18415 | \$23406 | \$11550 | \$12161 |
| Auto and truck (farm share) | \$ 2365 | \$ 3053 | \$ 1675 | \$ 1539 |
| Tractors and crop machinery | 16301 | 17120 | 12262 | 12692 |
| Livestock equipment | 3634 | 3304 | 2444 | 2543 |
| Machinery and equipment total | <u>\$22300</u> | <u>\$23477</u> | <u>\$16381</u> | <u>\$16774</u> |
| Land | \$55267 | \$55267 | \$35762 | \$35762 |
| Buildings, fences, etc. | <u>\$28725</u> | <u>\$28227</u> | <u>\$19786</u> | <u>\$20274</u> |
| Total farm capital managed | \$142906 | \$148360 | \$96666 | \$96403 |

* 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 15 for an explanation of "work units."

Table 2. Summary of Farm Earnings (Cash Statement), 1970

| Item | Average of 113 farms | 23 most profitable farms | 23 least profitable farms |
|---|----------------------------|--------------------------------|---------------------------------|
| <u>FARM RECEIPTS</u> | | | |
| Dairy cattle sold | \$ 3676 | \$ 4487 | \$ 1723 |
| Dairy products sold | 16686 | 20776 | 7540 |
| Beef cattle (incl. feeders) sold | 3030 | 1597 | 5322 |
| Hogs sold | 9069 | 14930 | 9800 |
| Sheep and wool sold | 82 | 40 | 48 |
| Horses sold | - | - | - |
| Poultry (incl. turkeys) sold | 19 | 19 | 7 |
| Eggs sold | 225 | 338 | 241 |
| Corn sold | 4844 | 8830 | 4691 |
| Soybeans sold | 2762 | 5048 | 2157 |
| Small grain sold | 421 | 869 | 372 |
| Other crops sold | 2208 | 4694 | 1243 |
| Machinery & equipment sold & gas tax refund | 458 | 496 | 540 |
| Income from work off the farm | 773 | 1098 | 857 |
| Miscellaneous farm income | 1061 | 1588 | 537 |
| Total farm sales | \$45314 | \$64810 | \$35078 |
| Increase in farm capital | 3814 | 5454 | - |
| Family living from the farm | 373 | 335 | 274 |
| Total farm receipts | \$49501 | \$70599 | \$35352 |
| <u>FARM EXPENSES</u> | | | |
| Dairy cattle bought | 521 | 130 | 415 |
| Beef cattle bought (incl. feeders) | 908 | 484 | 2910 |
| Hogs bought | 616 | 278 | 1063 |
| Sheep bought | 7 | 4 | 5 |
| Horses bought | - | - | - |
| Poultry bought (incl. turkeys) | 73 | 129 | 40 |
| Miscellaneous livestock expense | 1347 | 1573 | 700 |
| Feed bought | 5001 | 6067 | 4118 |
| Fertilizers bought | 2250 | 3154 | 2347 |
| Other crop expenses | 2593 | 4583 | 2268 |
| Custom work hired | 1744 | 2107 | 1356 |
| Gas, oil and grease bought (farm share) | 1330 | 1583 | 1101 |
| Repair of truck and auto (farm share) | 528 | 675 | 401 |
| Repair and upkeep of farm real estate | 573 | 729 | 440 |
| Repair and upkeep of tractor & crop machinery | 1356 | 1501 | 1169 |
| Repair and upkeep of livestock equipment | 345 | 356 | 221 |
| Wages of hired labor | 1730 | 3066 | 1119 |
| Electricity expense (farm share) | 523 | 642 | 444 |
| Real estate taxes | 1921 | 2715 | 1613 |
| Telephone and general farm expense | 769 | 972 | 651 |
| Total cash operating expenses | \$24135 | \$30748 | \$22381 |
| Trucks and autos bought (farm share) | 660 | 1425 | 274 |
| Crop and power machinery bought | 3905 | 4962 | 3157 |
| Livestock equipment bought | 986 | 392 | 580 |
| New real estate and improvements | 2948 | 2124 | 2237 |
| Total farm purchases | \$32634 | \$39651 | \$28629 |
| Decrease in farm capital | - | - | 263 |
| Interest on farm capital @ 6% | 6463 | 8738 | 5792 |
| Unpaid family labor | 1171 | 1103 | 975 |
| Board furnished hired labor | 55 | 75 | 65 |
| Total farm expenses | \$40323 | \$49567 | \$35724 |
| Labor earnings | \$ 9178 | \$21032 | \$ -372 |

Table 3. Summary of Farm Earnings (Enterprise Statement), 1970*

| Item | Average of 113 farms | 23 most profitable farms | 23 least profitable farms |
|--|----------------------------|--------------------------------|---------------------------------|
| RETURNS AND NET INCREASES | | | |
| Dairy cows | \$16835 | \$21181 | \$ 7351 |
| Other dairy cattle | 4424 | 5735 | 1624 |
| Beef breeding herd | 224 | - | - |
| Feeder cattle | 1421 | 707 | 2637 |
| Hogs | 7420 | 13558 | 6940 |
| Sheep - farm flock | 65 | 37 | 35 |
| Sheep - feeders | - | - | - |
| Chickens | 195 | 248 | 217 |
| All productive livestock | \$30584 | \$41466 | \$18804 |
| Value of feed fed to livestock | 15896 | 18793 | 12956 |
| Return over feed from livestock | \$14688 | \$22673 | \$ 5848 |
| Crop, seed and feed | 18321 | 29236 | 13259 |
| Income from labor off the farm | 399 | 576 | 385 |
| Miscellaneous farm income | 1061 | 1588 | 537 |
| Total returns and net increases | \$34469 | \$54073 | \$20029 |
| EXPENSES AND NET DECREASES | | | |
| Horses | 1 | - | - |
| Truck | \$ 608 | \$ 884 | \$ 421 |
| Auto (farm share) | 698 | 711 | 608 |
| Electricity (farm share) | 523 | 642 | 444 |
| Hired power | 1169 | 1428 | 911 |
| Tractors and crop machinery | 4773 | 6062 | 4007 |
| Livestock equipment | 992 | 1041 | 699 |
| Buildings, fencing, and tiling | 2497 | 3352 | 1952 |
| Miscellaneous productive livestock expense | 1347 | 1573 | 700 |
| Labor | 3530 | 4923 | 2603 |
| Real estate taxes | 1921 | 2715 | 1613 |
| General farm expense and telephone | 769 | 972 | 651 |
| Interest on farm capital @ 6% | 6463 | 8738 | 5792 |
| Total expenses and net decreases | \$25291 | \$33041 | \$20401 |
| Labor earnings | \$ 9178 | \$21032 | \$ -372 |

* Earnings statements, as shown in table 2, stress purchases and sales; inventory adjustments are entered as one item--either an increase or a decrease in farm capital. Likewise, family living from the farm is entered as a single item of income. On the enterprise basis, the value of livestock and livestock products produced includes sales, value used in the home, changes in inventories, and accounts for transfers between enterprises. Purchases of livestock are subtracted so the data represents value of livestock and livestock products added by the enterprise.

Costs of operating each service enterprise (auto and trucks, tractors and crop machinery, etc.) are calculated in a similar manner. Credit is given to crops for feed raised on the farm and consumed by livestock. Thus, while earnings statements on the enterprise basis do not show purchases and sales, such a statement more truly shows the value produced for the productive enterprises and net expenses for each of the service enterprises.

Table 4. Net Worth Statement for Those Farmers Who Kept a Complete Record of All Assets and Liabilities, 1970 (Operator's Share)

| Item | 23 Owners | |
|-------------------------------------|-----------|----------|
| | Jan. 1 | Dec. 31 |
| Total acres in farm | 241 | |
| Acres owned | 241 | |
| Acres rented | | |
| Total farm capital | \$76906 | \$76963 |
| Stocks and bonds | 11149 | 12760 |
| Life insurance cash value | 3387 | 3730 |
| Notes and accounts receivable | 3514 | 2012 |
| Shares in cooperative organizations | 1536 | 1798 |
| Outside real estate | 1385 | 2065 |
| Cash on hand and in bank | 4822 | 6758 |
| Household furnishings and clothing | 3557 | 3729 |
| Personal share of auto and truck | 898 | 798 |
| Farm dwelling | 6250 | 6646 |
| Total non-farm assets | \$36498 | \$40296 |
| Total assets | \$113404 | \$117259 |
| Mortgages on farm operated | 18060 | 17724 |
| Mortgages on other real estate | - | - |
| Chattel mortgages | 11518 | 10986 |
| Notes payable | 3580 | 3493 |
| Accounts payable | 2948 | 2910 |
| Total liabilities | \$36106 | \$35113 |
| Farmer's net worth | \$77298 | \$82146 |
| Change in net worth | | \$ 4848 |

| Item | 26 Part-owners | | 5 Renters | |
|-------------------------------------|----------------|----------|-----------|---------|
| | Jan. 1 | Dec. 31 | Jan. 1 | Dec. 31 |
| Total acres in farm | 356 | | 276 | |
| Acres owned | 237 | | - | |
| Acres rented | 119 | | 276 | |
| Total farm capital | \$ 96875 | \$102989 | \$38744 | \$36934 |
| Stocks and bonds | 7965 | 7589 | 4178 | 3518 |
| Life insurance cash value | 4739 | 4751 | 2625 | 2982 |
| Notes and accounts receivable | 1072 | 828 | - | - |
| Shares in cooperative organizations | 2008 | 2131 | 1518 | 1784 |
| Outside real estate | 881 | 1737 | 2400 | 4437 |
| Cash on hand and in bank | 5441 | 4883 | 1967 | 1804 |
| Household furnishings and clothing | 3322 | 3682 | 3124 | 3310 |
| Personal share of auto and truck | 685 | 928 | 652 | 864 |
| Farm dwelling | 6796 | 8122 | - | 67 |
| Total non-farm assets | \$ 32909 | \$ 34651 | \$16464 | \$18765 |
| Total assets | \$129784 | \$137640 | \$55208 | \$55699 |
| Mortgages on farm operated | 27814 | 29122 | - | - |
| Mortgages on other real estate | - | - | 1400 | 1400 |
| Chattel mortgages | 8046 | 9168 | 16394 | 17909 |
| Notes payable | 6455 | 6221 | 2175 | 491 |
| Accounts payable | 1517 | 2108 | 523 | 439 |
| Total liabilities | \$ 43832 | \$ 46619 | \$20492 | \$20239 |
| Farmer's net worth | \$ 85952 | \$ 91021 | \$34716 | \$35460 |
| Change in net worth | | \$ 5069 | | \$ 744 |

Table 5. Summary of Farm Earnings by Tenure, 1970 (Operator's Share)

| Item | 54 Owners | 37 Part- owners | 9 Renters |
|--|--------------|--------------------|--------------|
| <u>FARM RECEIPTS</u> | | | |
| Dairy cattle sold | \$ 3235 | \$ 4241 | \$ 2127 |
| Dairy products sold | 16082 | 17525 | 8454 |
| Beef cattle sold (incl. feeders) | 2376 | 4726 | 2926 |
| Hogs sold | 7879 | 8535 | 7383 |
| Sheep and wool sold | 137 | 48 | - |
| Horses sold | - | - | - |
| Poultry sold (incl. turkeys) | 5 | 19 | 44 |
| Eggs sold | 120 | 425 | 167 |
| Corn sold | 3135 | 6439 | 5151 |
| Soybeans sold | 1609 | 3908 | 1798 |
| Small grain sold | 221 | 377 | 578 |
| Other crops sold | 1836 | 2427 | 1685 |
| Machinery & equipment sold & gas tax refund | 355 | 630 | 424 |
| Income from work off the farm | 476 | 751 | 2183 |
| Miscellaneous farm income | 858 | 1081 | 1222 |
| (1) Total farm sales | \$38324 | \$51132 | \$34142 |
| (2) Increase in farm capital | 2930 | 5202 | 1594 |
| (3) Family living from the farm | 320 | 455 | 312 |
| (4) Total farm receipts (1)+(2)+(3) | \$41574 | \$56789 | \$36048 |
| <u>FARM EXPENSES</u> | | | |
| Dairy cattle bought | 490 | 189 | 286 |
| Beef cattle bought (incl. feeders) | 650 | 1599 | 928 |
| Hogs bought | 377 | 799 | 1220 |
| Sheep bought (incl. feeders) | 13 | 2 | - |
| Horses bought | - | - | - |
| Poultry bought (incl. turkeys) | 31 | 131 | 88 |
| Miscellaneous livestock expense | 1093 | 1469 | 841 |
| Feed bought | 4307 | 5501 | 3800 |
| Fertilizers bought | 1722 | 2870 | 2192 |
| Other crop expenses | 1918 | 2853 | 1992 |
| Custom work hired | 1545 | 2186 | 1249 |
| Gas, oil and grease bought (farm share) | 1179 | 1437 | 1211 |
| Repair and upkeep of power and crop machinery | 1598 | 2076 | 1822 |
| Repair and upkeep of real estate | 604 | 541 | 159 |
| Repair and upkeep of livestock equipment | 350 | 330 | 188 |
| Wages of hired labor | 1296 | 2317 | 825 |
| Electricity expense (farm share) | 447 | 555 | 357 |
| Real estate taxes | 1501 | 1629 | 39 |
| Cash rent | 71 | 2511 | 3817 |
| General farm expense & telephone | 658 | 803 | 598 |
| Interest paid | 1959 | 2805 | 1532 |
| Total cash operating expense | \$21809 | \$32603 | \$23144 |
| Trucks and autos bought (farm share) | 450 | 884 | 870 |
| Crop and power machinery bought | 3063 | 4218 | 2656 |
| Livestock equipment bought | 786 | 457 | 3924 |
| Farm purchase and real estate improvements | 3408 | 3412 | 147 |
| (5) Total farm purchases | \$29516 | \$41574 | \$30741 |
| (6) Decrease in farm capital | - | - | - |
| (7) Interest on operator's farm capital | 2949 | 3383 | 959 |
| (8) Unpaid family labor | 405 | 430 | 389 |
| (9) Board furnished hired labor | 30 | 72 | 17 |
| (10) Total farm expenses (5)+(6)+(7)+(8)+(9) | \$32900 | \$45459 | \$32106 |
| (11) Labor earnings (4)-(10) | 8674 | 11330 | 3942 |
| (12) Return to capital & family labor (7)+(8)+(11) | 12028 | 15143 | 5290 |

Table 6. Household and Personal Expenses for Those Farms Which Kept Complete Accounts of these Expenses, 1970

| Item | Average of 48 farms | 10 high in return to cap. and fam. labor | 10 low in return to cap. and fam. labor |
|--|---------------------------|---|--|
| Number of persons - family | 4.6 | 4.5 | 4.2 |
| Number of adult equivalent - family | 4.0 | 4.0 | 3.7 |
| - other* | .1 | .1 | .1 |
| EXPENSES | | | |
| Food and meals bought | \$ 1621 | \$ 1772 | \$ 1562 |
| Operating and supplies | 490 | 394 | 574 |
| Furnishings and equipment | 537 | 525 | 512 |
| Clothing and clothing materials | 679 | 717 | 622 |
| Personal care and spending | 277 | 447 | 409 |
| Education | 373 | 647 | 112 |
| Recreation | 215 | 306 | 236 |
| Gifts and special events | 336 | 411 | 320 |
| Medical and hospital expenses | 893 | 931 | 837 |
| Church and welfare | 518 | 732 | 249 |
| Personal share of auto expense | 350 | 501 | 228 |
| Upkeep on dwelling | 102 | 69 | 103 |
| Personal share of tel. & elec. expense | <u>194</u> | <u>223</u> | <u>171</u> |
| Total cash living expense | \$ 6585 | \$ 7675 | \$ 5935 |
| Personal share of new auto | 284 | 774 | 18 |
| New dwelling | 535 | 714 | 1130 |
| Taxes | 1286 | 2900 | 494 |
| Life insurance | 928 | 1606 | 757 |
| Other savings and investments | <u>1854</u> | <u>1935</u> | <u>259</u> |
| Total household and pers. cash expense | \$11472 | \$15604 | \$ 8593 |
| Family living from the farm | <u>343</u> | <u>364</u> | <u>193</u> |
| Total cash expenses and perquisites | \$11815 | \$15968 | \$ 8786 |
| RECEIPTS | | | |
| Return to capital and family labor | \$14453 | \$29079 | \$ 1434 |
| Income from outside investments | 729 | 1260 | 281 |
| Other personal income | 651 | 563 | 1006 |

* Hired help or others boarded.

Table 7. Family Living from the Farm, 1970

| Item | Average of 113 farms | Average of 113 farms |
|--------------------------------------|----------------------|----------------------|
| Number of adult equivalents - family | 4.0 | |
| - other* | .1 | |
| Whole milk | 1041 qts. | \$ 100 |
| Cream | 16 pts. | 6 |
| Cattle | 838 lbs. | 206 |
| Hogs | 209 lbs. | 44 |
| Sheep | 4 lbs. | - |
| Poultry | 33 lbs. | 10 |
| Eggs | 24 doz. | 7 |
| Total | | \$ 373 |

* 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. 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 Labor Earnings to the Number of Factors in Which the Farmer Excels

| Number 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 |
|--|--------------|-----------|--|------------------------|
| 0 or 1 | 14 | _____ | XXXXXX | \$ 2910 |
| 2 | 22 | _____ | XXXXXXXXXXXXXX | 6711 |
| 3 | 24 | _____ | XXXXXXXXXXXXXXXXXX | 7753 |
| 4 | 33 | _____ | XXXXXXXXXXXXXXXXXXXXXX | 10587 |
| 5 | 14 | _____ | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX | 14895 |
| 6 or 7 | 6 | _____ | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX | 17452 |

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.

Table 9. Measures of Farm Organization and Management Efficiency, 1970

| Measures used in chart on page 11 | Average of 113 farms | 23 most profitable farms | 23 least profitable farms |
|---|----------------------|--------------------------|---------------------------|
| Labor earnings | \$ 9178 | \$21032 | \$ -372 |
| Crop yields* | 100 | 108 | 85 |
| Percent tillable land in high return crops** | 63.6 | 63.2 | 69.1 |
| Return for \$100 feed to prod. livestock*** | 100 | 117 | 86 |
| Productive livestock units per 100 acres**** | 34.3 | 37.3 | 33.9 |
| Size of business - work units | 431 | 545 | 326 |
| Work units per worker | 254 | 287 | 217 |
| All power, machinery, equipment, building expense per work unit | \$27.86 | \$27.77 | \$28.61 |
| Items related to some of the above measures: | | | |
| Index of return for \$100 feed from: | | | |
| Dairy cattle (see pages 16 and 17) | 100 | 94 | 91 |
| Beef cattle - breeding herd (see page 19) | 100 | - | - |
| Beef cattle - feeders (see page 20) | 100 | - | - |
| Hogs (see page 18) | 100 | 128 | 81 |
| Sheep - farm flock (see page 21) | 100 | - | - |
| Chickens (see page 22) | 100 | 123 | 96 |
| Number of animal units | 84.8 | 104.4 | 76.2 |
| Work units on crops | 125 | 165 | 116 |
| Work units on productive livestock | 290 | 357 | 194 |
| Other work units | 16 | 23 | 16 |
| Number of family workers | 1.3 | 1.2 | 1.2 |
| Number of hired workers | .4 | .7 | .3 |
| Total number of workers | 1.7 | 1.9 | 1.5 |
| Power & crop machinery expense/work unit | \$19.63 | \$19.75 | \$20.25 |
| Livestock equipment expense per work unit | 2.23 | 1.81 | 2.19 |
| Building & fencing expense per work unit | 6.00 | 6.21 | 6.17 |
| Number of crop acres | 225 | 299 | 209 |
| Tractor & crop machinery expense/crop acre | \$21.45 | \$20.70 | \$20.11 |
| Rate earned on capital managed***** | 8.0% | 15.6% | -1.6% |

* 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 are not included.

***** \$7000 is deducted for operator's labor.

Using your figures from page 10, locate your standing with respect to the various measures of farm organization and management efficiency. The average for the 113 farms included in this summary are located between the dotted lines across the center of this page.

| Labor earnings | Crop yields | High return crops | Return from prod. livestock | Pr. L.S. units per 100 A. | Work units | Work units per worker | Pow., mach. eq.&bldg. exp. per work unit |
|----------------|-------------|-------------------|-----------------------------|---------------------------|------------|-----------------------|--|
| \$21200 | 132 | 88.0 | 140 | 66.0 | 750 | 415 | \$8.00 |
| 19700 | 128 | 85.0 | 135 | 62.0 | 710 | 395 | 10.50 |
| 18200 | 124 | 82.0 | 130 | 58.0 | 670 | 375 | 13.00 |
| 16700 | 120 | 79.0 | 125 | 54.0 | 630 | 355 | 15.50 |
| 15200 | 116 | 76.0 | 120 | 50.0 | 590 | 335 | 18.00 |
| 13700 | 112 | 73.0 | 115 | 46.0 | 550 | 315 | 20.50 |
| 12200 | 108 | 70.0 | 110 | 42.0 | 510 | 295 | 23.00 |
| 10700 | 104 | 67.0 | 105 | 38.0 | 470 | 275 | 25.50 |
| | | | | | | | |
| 9200 | 100 | 64.0 | 100 | 34.0 | 430 | 255 | 28.00 |
| | | | | | | | |
| 7700 | 96 | 61.0 | 95 | 30.0 | 390 | 235 | 30.50 |
| 6200 | 92 | 58.0 | 90 | 26.0 | 350 | 215 | 33.00 |
| 4700 | 88 | 55.0 | 85 | 22.0 | 310 | 195 | 35.50 |
| 3200 | 84 | 52.0 | 80 | 18.0 | 270 | 175 | 38.00 |
| 1700 | 80 | 49.0 | 75 | 14.0 | 230 | 155 | 40.50 |
| 200 | 76 | 46.0 | 70 | 10.0 | 190 | 135 | 43.00 |
| -1300 | 72 | 43.0 | 65 | 6.0 | 150 | 115 | 45.50 |
| -2800 | 68 | 40.0 | 60 | 2.0 | 110 | 95 | 48.00 |

Table 10. Distribution of Acres in Farm, 1970

| Item | Crop ratings* | Number growing this crop | Average of 113 farms | Ave. per farm raising each crop |
|--|---------------|--------------------------|----------------------|---------------------------------|
| Canning peas | B | 8 | 1.8 | 25.2 |
| Wheat | C | 24 | 2.4 | 11.6 |
| Oats for silage | C | 12 | 2.6 | 24.3 |
| Oats for grain | D | 82 | 19.7 | 27.2 |
| Barley | D | 6 | 1.3 | 23.8 |
| Other small grain | D or C | | <u>.2</u> | 9.4 |
| Total small grains and peas | | 101 | 28.0 | 31.3 |
| Corn grain | A | 113 | 98.2 | 98.2 |
| Soybeans for grain | B | 61 | 38.5 | 71.4 |
| Sweet corn | B | 11 | 5.2 | 53.6 |
| Corn silage | B | 67 | <u>10.4</u> | 17.5 |
| Total cultivated crops | | 113 | 152.3 | 152.3 |
| Alfalfa hay | B | 98 | 43.2 | 49.8 |
| Other legume hay | C | 1 | .1 | 13.6 |
| Other tame hay | D | - | - | - |
| Annual hay | D | 4 | <u>.4</u> | 10.0 |
| Total tillable land in hay | | 99 | 43.7 | 49.9 |
| Alfalfa pasture | B | 46 | 9.2 | 22.6 |
| Other tillable pasture | D | 17 | <u>2.2</u> | 14.4 |
| Total tillable land in pasture | | 54 | 11.4 | 23.8 |
| Feed grain program (diverted acres) | B | 56 | 22.0 | 44.4 |
| Tillable land not cropped | D | 6 | <u>.8</u> | 15.9 |
| Total tillable land | | 113 | 258.2 | 258.2 |
| Wild hay | | 13 | 1.2 | 10.8 |
| Non-tillable pasture | | 62 | 17.7 | 32.2 |
| Timber not pastured | | 46 | 8.5 | 20.9 |
| Roads and waste | | | 13.3 | |
| Farmstead | | | <u>8.0</u> | |
| Total acres in farm | | | 306.9 | |
| Percent land tillable | | | 84.7 | |
| Percent tillable land in high return crops | | | 63.6 | |

*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, 1970

| Item | Average of farms growing each crop |
|-----------------------------|---------------------------------------|
| Canning peas, dollars | \$87.46 |
| Wheat, bu. | 31.0 |
| Oats for silage, tons | 5.6 |
| Oats for grain, bu. | 55.6 |
| Barley, bu. | 48.4 |
| Corn grain, bu. | 96.7 |
| Soybeans, bu. | 29.5 |
| Sweet corn, tons | 5.8 |
| Corn silage, tons | 14.7 |
| Alfalfa hay, tons | 3.6 |
| Other legume hay, tons | 3.7 |
| Annual hay, tons | 2.6 |
| Feed grain program, dollars | \$62.39 |

Table 12. Average Price of Feeds, 1970

| Item | Value | Item | Value |
|------------------------|--------|----------------------------|---------|
| Ear corn, per bu. | \$1.15 | Alfalfa hay, per ton | \$20.00 |
| Oats, per bu. | .60 | Timothy hay, per ton | 11.60 |
| Barley, per bu. | .85 | Wild hay, per ton | 10.00 |
| Wheat, per bu. | 1.60 | Corn silage, per ton | 7.25 |
| Soybean meal, per cwt. | 5.00 | Pasture, per month per cow | 4.00 |

Table 13. Return Above Listed Costs per Acre of Crops, 1970

| Item | Corn grain | Corn silage | Soybeans |
|-----------------------------|--------------|--------------|-------------|
| Number of farmers reporting | 97 | 58 | 54 |
| Yield per acre | 96.7 bu. | 14.7 tons | 29.5 bu. |
| Price per unit | \$1.25 | \$7.25 | \$2.75 |
| Total return | \$120.88 | \$106.58 | \$ 81.12 |
| Fertilizer | \$ 15.53 | \$ 14.71 | \$ 1.26 |
| Seeds, herbicides, etc. | <u>13.69</u> | <u>12.48</u> | <u>8.52</u> |
| Total listed costs | \$ 29.22 | \$ 27.19 | \$ 9.78 |
| Return above listed costs | \$ 91.66 | \$ 79.39 | \$ 71.34 |

| Item | Alfalfa hay | Oats | Wheat |
|-----------------------------|-------------|-------------|-------------|
| Number of farmers reporting | 84 | 70 | 20 |
| Yield per acre | 3.6 tons | 55.6 bu. | 31.0 bu. |
| Price per unit | \$20.00 | \$.60 | \$ 1.65 |
| Total return | \$72.00 | \$33.36 | \$51.15 |
| Fertilizer | \$ 3.80 | \$ 1.57 | \$ 3.00 |
| Seeds, herbicides, etc. | <u>6.72</u> | <u>3.28</u> | <u>4.80</u> |
| Total listed costs | \$10.52 | \$ 4.85 | \$ 7.80 |
| Return above listed costs | \$61.48 | \$28.51 | \$43.35 |

EXPLANATION OF "WORK UNITS" AND "ANIMAL 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 14.

Table 14. Number of Work Units for Each Class of Livestock and Each Acre of Crop

| Item | Number of work units | Item | Number of work units |
|--------------------|----------------------|--------------------|----------------------|
| Dairy cows | 7.0 per cow | Small grain | .3 per acre |
| Other dairy cattle | 1.2 per head | Sugar beets | 1.8 per acre |
| Beef breeding herd | 1.5 per cow | Sweet corn | .7 per acre |
| Feeder cattle | .12 per 100 lbs. | Corn husked | .6 per acre |
| Sheep, farm flock | .6 per ewe | Corn silage | .8 per acre |
| Sheep, feeders | .3 per 100 lbs. | Potatoes | 4.0 per acre |
| Hogs | .12 per 100 lbs. | Alfalfa hay | .6 per acre |
| Turkeys | .1 per 100 lbs. | Soybean hay | .6 per acre |
| Hens | 5.0 per 100 hens | Other hay crops | .4 per acre |
| Canning peas | .3 per acre | Labor off the farm | 1.0 per \$25. |
| Soybeans for grain | .5 per acre | | |

An animal unit represents one dairy cow or bull, two other dairy cattle, $1\frac{1}{4}$ 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.

Table 15. Factors of Costs and Returns from Dairy Cows, 1970

| Item | Average of 75 farms | 15 farms highest in butterfat per cow | 15 farms lowest in butterfat per cow |
|-------------------------------------|---------------------------|--|---|
| Pounds of milk per cow | 12287 | 14617 | 9347 |
| Percent butterfat in milk | 3.8 | 3.8 | 3.8 |
| Pounds of butterfat per cow | 457 | 546 | 348 |
| Price received per pound of BF sold | \$1.36 | \$1.39 | \$1.30 |
| Price received per cwt. milk sold | 5.09 | 5.22 | 4.91 |
| Value of produce per cow: | | | |
| Dairy product sales | \$611.88 | \$742.63 | \$443.39 |
| Dairy produce used in home | 4.19 | 4.85 | 3.69 |
| Milk fed to livestock | 4.77 | 6.80 | 6.39 |
| Net increase in value of cows | -.66 | 6.90 | -9.43 |
| TOTAL VALUE PRODUCED | \$620.18 | \$761.18 | \$444.04 |
| Feed cost per cow: | | | |
| Concentrates | \$142.24 | \$160.18 | \$115.10 |
| Roughages | 95.05 | 103.09 | 73.75 |
| Pasture | 9.24 | 10.72 | 14.58 |
| TOTAL FEED COST | \$246.53 | \$273.99 | \$203.43 |
| RETURN ABOVE FEED COST PER COW | \$373.65 | \$487.19 | \$240.61 |
| RETURNS FOR \$100 OF FEED | \$257 | \$286 | \$226 |
| Feeds per cow, lbs.: | | | |
| Corn | 4533 | 4922 | 3686 |
| Small grain | 635 | 800 | 542 |
| Commercial feeds | 598 | 712 | 503 |
| Total concentrates | 5766 | 6434 | 4731 |
| Total hay | 6854 | 7347 | 5345 |
| Silage | 7370 | 8189 | 5657 |
| Feed cost per pound of butterfat | \$.54 | \$.50 | \$.58 |
| Feed cost per cwt. of milk | 2.01 | 1.87 | 2.18 |
| Number of cows | 40.3 | 41.1 | 34.0 |

* 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 16. Feed Costs and Returns from Other Dairy Cattle, 1970

| Item | Average of 75 farms | 15 farms highest in butterfat per cow | 15 farms lowest in butterfat per cow |
|---|---------------------------|--|---|
| NET INCREASE IN VALUE OF OTHER DAIRY CATTLE | \$127.64 | \$150.65 | \$ 96.87 |
| TOTAL FEED COST PER HEAD | \$ 75.21 | \$ 84.41 | \$ 56.49 |
| RETURNS ABOVE FEED COST PER HEAD | \$ 52.43 | \$ 66.24 | \$ 40.38 |
| RETURNS FOR \$100 OF FEED | \$187 | \$183 | \$225 |
| Feed per head, lbs.: | | | |
| Concentrates | 1266 | 1291 | 857 |
| Hay | 2544 | 2699 | 1912 |
| Silage | 2259 | 2835 | 1628 |
| Whole milk | 108 | 208 | 104 |
| Number of head of other dairy cattle | 51.7 | 52.0 | 38.2 |

Table 17. Feed Costs and Returns from All Dairy Cattle, 1970

| Item | Average of 75 farms | 15 farms highest in butterfat per cow | 15 farms lowest in butterfat per cow |
|---------------------------------------|---------------------------|--|---|
| Value of produce per cow: | | | |
| Dairy products | \$616.07 | \$747.48 | \$447.08 |
| Net increase in value of dairy cattle | <u>167.46</u> | <u>196.34</u> | <u>110.46</u> |
| TOTAL VALUE PRODUCED | \$783.53 | \$943.82 | \$557.54 |
| TOTAL FEED COSTS PER COW | \$340.94 | \$373.18 | \$268.65 |
| RETURNS ABOVE FEED COST PER COW | \$442.59 | \$570.64 | \$288.89 |
| RETURNS FOR \$100 OF FEED | \$235 | \$260 | \$217 |
| Feed per cow, lbs.: | | | |
| Concentrates | 7541 | 8109 | 5846 |
| Hay | 10166 | 10795 | 7738 |
| Silage | 10188 | 11544 | 7637 |
| Miscellaneous costs per cow | \$37.36 | \$47.31 | \$26.43 |

Table 18. Feed Costs and Returns from Hogs, 1970

| Item | Average of 52 farms | 40 farms with breeding stock | | 11 farms with purchased feeder pigs | |
|--|---------------------------|------------------------------|---|--|--|
| | | Average of 40 farms | 13 farms highest in returns above feed | | 13 farms lowest in returns above feed |
| Pounds of hogs produced | 87497 | 101811 | 128973 | 76736 | 39786 |
| Net increase in value per cwt. produced | \$17.23 | \$18.26 | \$20.76 | \$15.83 | \$13.80 |
| Feed cost per cwt. produced | <u>12.06</u> | <u>12.32</u> | <u>11.24</u> | <u>13.47</u> | <u>11.18</u> |
| Return above feed cost per cwt. produced | \$ 5.17 | \$ 5.94 | \$ 9.52 | \$ 2.36 | \$ 2.62 |
| RETURNS FOR \$100 OF FEED | \$147 | \$152 | \$188 | \$118 | \$131 |
| Price received per cwt. sold | \$21.93 | \$21.79 | \$22.95 | \$21.02 | \$22.39 |
| Weight per hog sold | 240 | 243 | 241 | 247 | 229 |
| Miscellaneous costs per cwt. produced | \$.42 | \$.49 | \$.48 | \$.54 | \$.15 |
| Feed per cwt. hogs produced, lbs.: | | | | | |
| Corn | 333 | 336 | 314 | 360 | 323 |
| Small grain | 22 | 24 | 22 | 24 | 18 |
| Commercial feeds | <u>67</u> | <u>71</u> | <u>67</u> | <u>76</u> | <u>55</u> |
| Total concentrates | 422 | 431 | 403 | 460 | 396 |
| Total number of litters raised | 48.7 | 62.2 | 73.6 | 51.0 | 3.4 |
| Number of pigs born per litter | 9.0 | 9.1 | 9.1 | 9.0 | 7.1 |
| Number of pigs weaned per litter | 7.3 | 7.4 | 7.7 | 7.2 | 5.6 |
| Number of feeder pigs purchased | 55 | 9 | - | 9 | 209 |
| Total weight of feeders purchased | 1908 | 326 | - | 369 | 7181 |
| Price paid per feeder pig | \$19.53 | \$17.95 | - | \$18.00 | \$19.79 |

Table 19. Feed Costs and Returns from Beef Breeding Herd, 1970

| Item | Average of 6 farms |
|---------------------------------|--------------------------|
| TOTAL VALUE PRODUCED PER COW | \$179.02 |
| Feed cost per cow: | |
| Concentrates | \$ 21.55 |
| Roughages | 46.05 |
| Pasture | 36.94 |
| TOTAL FEED COST | <u>\$104.54</u> |
| RETURNS ABOVE FEED COST PER COW | \$ 74.48 |
| RETURNS FOR \$100 OF FEED | \$179 |
| Feed per cow, lbs.: | |
| Concentrates | 638 |
| Hay | 3964 |
| Silage | 1768 |
| Pounds of beef produced | 10812 |
| Number of cows | 25.1 |
| Number of other beef cattle | 21.7 |

Table 20. Feed Costs and Returns from Feeder Cattle, 1970

| Item | Average of 20 farms |
|--|---------------------------|
| Pounds of beef produced | 32683 |
| NET INCREASE IN VALUE OF FEEDERS PER CWT. OF BEEF PRODUCED | \$25.86 |
| Feed cost per cwt. beef produced: | |
| Concentrates | \$16.97 |
| Roughages | 4.62 |
| Pasture | .49 |
| TOTAL FEED COST | <u>\$22.08</u> |
| RETURNS ABOVE FEED COST PER CWT. BEEF PRODUCED | \$ 3.78 |
| RETURNS FOR \$100 OF FEED | \$122 |
| Miscellaneous costs per cwt. of beef produced | \$.57 |
| Feed per cwt. beef produced, lbs.: | |
| Corn | 676 |
| Small grain | 33 |
| Commercial feeds | 41 |
| Total concentrates | 750 |
| Total hay | 297 |
| Silage | 458 |
| Price paid per cwt. of beef bought | \$32.73 |
| Price received per cwt. of feeder cattle sold | 27.44 |
| Number of animal units | 51.1 |

Table 21. Feed Costs and Returns from a Farm Flock of Sheep, 1970*

| Item | Average of 5 farms |
|---------------------------------------|--------------------------|
| Value of produce per ewe: | |
| Wool | \$ 4.79 |
| Net increase in value of sheep | <u>30.15</u> |
| TOTAL VALUE PRODUCED | \$34.94 |
| Feed cost per ewe: | |
| Concentrates | \$ 9.26 |
| Roughages | 10.69 |
| Pasture | <u>3.70</u> |
| TOTAL FEED COSTS | \$23.65 |
| RETURNS ABOVE FEED COST PER EWE | \$11.29 |
| RETURNS FOR \$100 OF FEED | \$151 |
| Feeds per ewe, lbs.: | |
| Concentrates | 371 |
| Hay | 1069 |
| Silage | - |
| Price received per cwt. of lambs sold | \$28.75 |
| Price received per pound of wool sold | \$.45 |
| Pounds of wool per sheep sheared | 8.2 |
| Percent lamb crop** | 124 |
| Percent death loss** | 7.9 |
| Pounds of sheep produced | 3569 |
| Number of ewes | 36.8 |

* Includes feeds and returns from lambs.

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

Table 22. Feed Costs and Returns from Chickens, 1970*

| Item | Average of 9 farms |
|--|--------------------------|
| Value of produce per hen: | |
| Eggs sold and used in house | \$4.49 |
| Net increase in value of chickens | <u>-.93</u> |
| TOTAL VALUE PRODUCED | \$3.56 |
| TOTAL FEED COST PER HEN | \$2.97 |
| RETURNS ABOVE FEED COST PER HEN | \$.59 |
| RETURNS FOR \$100 OF FEED | \$124 |
| Miscellaneous costs per hen | \$.10 |
| Feed per hen, lbs.: | |
| Grain | 75 |
| Commercial feeds | <u>23</u> |
| Total concentrates | 98 |
| Price received per dozen eggs sold | \$.29 |
| Eggs laid per hen | 187 |
| Feed costs per dozen eggs produced | \$.19 |
| Average number of hens on farm during year | 592 |
| Percent death loss of hens | 13.0 |
| Number of chicks bought | 250 |
| Number of hens bought | 469 |

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

Table 23. Summary by Years

| Item | Average 1940-44 | Average 1945-49 | Average 1950-54 | Average 1955-59 | Average 1960-64 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 |
|-----------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------|---------|---------|---------|----------|----------|
| Number of farms | 177 | 169 | 162 | 165 | 158 | 149 | 147 | 130 | 132 | 111 | 113 |
| Acres in farm | 227 | 223 | 226 | 235 | 256 | 269 | 273 | 280 | 294 | 304 | 307 |
| Crop acres in farm | 148 | 148 | 155 | 162 | 178 | 188 | 192 | 207 | 214 | 218 | 225 |
| Farm inventory | \$25912 | \$31402 | \$42663 | \$49342 | \$60988 | \$68438 | \$74331 | \$82474 | \$92339 | \$102858 | \$107724 |
| FARM EXPENSES | | | | | | | | | | | |
| Cattle bought | \$ 441 | \$ 485 | \$ 902 | \$1148 | \$1450 | \$ 852 | \$1158 | \$1088 | \$1403 | \$1442 | \$1429 |
| Hogs bought | 154 | 194 | 202 | 258 | 386 | 383 | 377 | 526 | 701 | 535 | 616 |
| Sheep bought | 64 | 64 | 35 | 143 | 88 | 4 | 5 | 18 | 3 | 7 | 7 |
| Poultry bought | 142 | 176 | 154 | 124 | 154 | 102 | 186 | 189 | 17 | 54 | 73 |
| Horses bought | 32 | 14 | 6 | 6 | 2 | 2 | 1 | 1 | - | 3 | - |
| Miscellaneous livestock expense | 124 | 228 | 359 | 530 | 731 | 807 | 855 | 943 | 1016 | 1114 | 1347 |
| Commercial fertilizers bought | - | - | - | 877 | 1085 | 1469 | 1787 | 2388 | 2179 | 2066 | 2250 |
| Miscellaneous crop expense | 301* | 701* | 1010* | 651 | 926 | 1382 | 1665 | 1764 | 2070 | 2511 | 2593 |
| Feed bought | 1273 | 1954 | 2241 | 2747 | 3735 | 3957 | 4812 | 4266 | 4125 | 4236 | 5001 |
| Custom work hired | 165 | 401 | 552 | 745 | 857 | 962 | 1083 | 1354 | 1429 | 1649 | 1744 |
| Pow., mach. & equip. (new & upkp) | 1253 | 2687 | 3609 | 4261 | 4764 | 5761 | 7279 | 6513 | 7660 | 8451 | 9633 |
| Buildings (new) | 331 | 778 | 983 | 982 | 1229 | 1475 | 1256 | 2989 | 2035 | 1896 | 2948 |
| Buildings (upkeep) | 188 | 323 | 368 | 320 | 344 | 378 | 428 | 424 | 464 | 483 | 573 |
| Hired labor | 585 | 849 | 857 | 878 | 922 | 997 | 1079 | 1075 | 1172 | 1290 | 1730 |
| Taxes | 271 | 392 | 633 | 861 | 1301 | 1513 | 1611 | 1740 | 1368 | 1713 | 1921 |
| General farm expense | 84 | 150 | 239 | 316 | 409 | 472 | 506 | 525 | 586 | 686 | 769 |
| Total farm purchases | \$ 5408 | \$ 9396 | \$12150 | \$14847 | \$18383 | \$20516 | \$24088 | \$26803 | \$26228 | \$28136 | \$32634 |
| Decrease in farm capital | - | - | - | - | - | - | - | - | - | - | - |
| Board to hired labor | 158 | 174 | 166 | 134 | 101 | 84 | 71 | 56 | 56 | 52 | 55 |
| Interest on farm capital | 1296 | 1570 | 2133 | 2467 | 3049 | 3422 | 3717 | 4536 | 5079 | 5657 | 6463 |
| Unpaid family labor | 326 | 511 | 496 | 540 | 629 | 836 | 836 | 799 | 812 | 790 | 1171 |
| Total farm expense | \$ 7188 | \$11651 | \$14945 | \$17988 | \$22162 | \$24858 | \$28712 | \$32194 | \$32175 | \$34635 | \$40323 |

* Includes fertilizer.

Table 23. Summary by Years (continued)

| Item | Average 1940-44 | Average 1945-49 | Average 1950-54 | Average 1955-59 | Average 1960-64 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 |
|---------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------|---------|---------|---------|---------|---------|
| FARM RECEIPTS | | | | | | | | | | | |
| Cattle | \$1335 | \$2022 | \$2981 | \$3532 | \$4749 | \$4669 | \$4894 | \$5403 | \$5522 | \$6482 | \$6706 |
| Dairy products | 2138 | 4080 | 4702 | 6032 | 8105 | 9582 | 10455 | 11847 | 12492 | 13777 | 16686 |
| Hogs | 2517 | 3598 | 4253 | 4653 | 5961 | 6360 | 8568 | 7658 | 8166 | 9114 | 9069 |
| Sheep and wool | 186 | 232 | 171 | 272 | 222 | 89 | 98 | 98 | 108 | 81 | 82 |
| Poultry | 629 | 672 | 354 | 212 | 88 | 135 | 181 | 61 | 17 | 18 | 19 |
| Eggs | 751 | 1319 | 1297 | 1075 | 1015 | 901 | 1316 | 828 | 353 | 260 | 225 |
| Horses | 34 | 20 | 14 | 8 | 4 | 1 | 5 | 1 | - | - | - |
| Corn | 121 | 335 | 766 | 1926 | 1594 | 1649 | 1926 | 2681 | 2492 | 3587 | 4844 |
| Soybeans* | - | - | - | - | - | - | 1660 | 2309 | 2069 | 2406 | 2762 |
| Small grain | 278 | 659 | 495 | 481 | 624 | 446 | 371 | 608 | 494 | 541 | 421 |
| Other crops* | 455 | 819 | 853 | 1334 | 2181 | 3421 | 2272 | 1483 | 2592 | 3144 | 2208 |
| Income from labor off the farm | 141 | 178 | 182 | 269 | 239 | 343 | 362 | 411 | 542 | 503 | 399 |
| Miscellaneous farm income | 536 | 528 | 684 | 729 | 882 | 1005 | 1027 | 1463 | 1760 | 1748 | 1893 |
| Total farm sales | \$ 9121 | \$14462 | \$16752 | \$20523 | \$25664 | \$28601 | \$33135 | \$34851 | \$36607 | \$41661 | \$45314 |
| Increase in farm capital | 921 | 1411 | 1905 | 941 | 601 | 3604 | 5006 | 2501 | 3582 | 2885 | 3814 |
| Family living from the farm | 566 | 715 | 620 | 304 | 307 | 293 | 321 | 318 | 302 | 373 | 373 |
| Total farm receipts | \$10608 | \$16588 | \$19277 | \$21768 | \$26572 | \$32498 | \$38462 | \$37670 | \$40491 | \$44919 | \$49501 |
| Total farm expenses | 7188 | 11651 | 14945 | 17988 | 22162 | 24858 | 28712 | 32194 | 32175 | 34635 | 40323 |
| Labor earnings | \$ 3420 | \$ 4937 | \$ 4332 | \$ 3780 | \$ 4410 | \$ 7640 | \$ 9750 | \$ 5476 | \$ 8316 | \$10284 | \$ 9178 |
| MISCELLANEOUS ITEMS | | | | | | | | | | | |
| Yield per acre: | | | | | | | | | | | |
| Corn (bu.) | 55.7 | 47.6 | 59.8 | 73.1 | 72.4 | 72.1 | 91.0 | 83.8 | 88.7 | 98.3 | 96.7 |
| Barley (bu.) | 24.8 | 30.8 | 29.1 | 41.4 | 44.9 | 54.9 | 44.1 | 58.3 | 52.7 | 47.1 | 48.4 |
| Oats (bu.) | 44.2 | 48.2 | 32.8 | 58.3 | 58.3 | 69.7 | 61.7 | 59.7 | 62.7 | 58.4 | 55.6 |
| Alfalfa (tons) | 2.4 | 2.3 | 2.7 | 2.9 | 3.0 | 2.7 | 3.4 | 3.3 | 3.3 | 3.4 | 3.6 |
| Soybeans (bu.) | 13.4 | 16.4 | 19.6 | 24.8 | 23.6 | 20.5 | 26.4 | 23.1 | 26.8 | 25.1 | 29.5 |
| % till. land in high ret. crops | 43.3 | 50.9 | 62.8 | 62.7 | 60.1 | 58.6 | 58.9 | 61.6 | 61.2 | 62.2 | 63.6 |
| An. units of lvstk. per 100 A. | 24.5 | 22.8 | 28.9 | 33.7 | 36.4 | 33.3 | 38.5 | 34.3 | 32.7 | 32.5 | 34.3 |
| Number of work units | 670 | 601 | 535 | 486 | 548 | 561 | 577 | 457 | 466 | 466 | 431 |
| Work units per worker | 305 | 300 | 284 | 274 | 318 | 330 | 361 | 286 | 274 | 274 | 254 |
| Expense per work unit | \$2.35 | \$4.69 | \$8.18 | \$10.81 | \$11.61 | \$12.94 | \$13.76 | \$18.77 | \$20.81 | \$23.67 | \$27.86 |
| Number of milk cows | 17.6 | 17.0 | 17.7 | 19.8 | 22.2 | 24.0 | 23.4 | 24.5 | 23.9 | 25.0 | 26.7 |

* "Other crops" include soybeans 1935 through 1965.

Table 23. Summary by Years (concluded)

| Item | Average 1940-44 | Average 1945-49 | Average 1950-54 | Average 1955-59 | Average 1960-64 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 |
|-------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----------|----------|----------|----------|----------|----------|
| MISCELLANEOUS ITEMS (cont.) | | | | | | | | | | | |
| Number of litters of pigs | 14.4 | 11.7 | 13.5 | 17.3 | 19.4 | 17.2 | 20.5 | 20.3 | 21.4 | 18.9 | 22.0 |
| Pounds of hogs produced | 21586 | 18505 | 17579 | 28272 | 36619 | 30933 | 36834 | 36108 | 41717 | 37002 | 36039 |
| Pounds of feeder cattle prod. | 1534 | 813 | 2118 | 3529 | 5573 | 3955 | 4469 | 3899 | 4430 | 4789 | 5784 |
| Number of head of ewes | 10 | 7 | 7 | 5 | 4 | 4 | 4 | 4 | 3 | 2 | 2 |
| Number of hens | 222 | 235 | 219 | 209 | 197 | 191 | 218 | 168 | 72 | 43 | 47 |
| Pounds of BF per dairy cow | 252 | 278 | 308 | 342 | 375 | 415 | 401 | 416 | 426 | 425 | 457 |
| Pigs weaned per litter | 6.2 | 6.5 | 6.7 | 6.9 | 7.1 | 7.5 | 7.3 | 7.1 | 7.4 | 7.2 | 7.3 |
| Number of eggs laid per hen | 145 | 177 | 194 | 203 | 205 | 186 | 198 | 215 | 218 | 187 | 187 |
| PRICE RECEIVED PER: | | | | | | | | | | | |
| Cwt. of milk | * | * | * | * | \$3.48 | \$3.58 | \$4.17 | \$4.39 | \$4.59 | \$4.84 | \$5.09 |
| Pound of BF as cream | \$.47 | \$.80 | \$.75 | \$.66 | - | - | - | - | - | - | - |
| Cwt. of hogs sold | 10.93 | 19.36 | 19.54 | 15.99 | 15.55 | 20.32 | 23.06 | 19.03 | 18.84 | 23.20 | 21.93 |
| Cwt. of feeder cattle sold | 11.55 | 20.56 | 26.22 | 21.19 | 22.61 | 21.67 | 22.78 | 23.60 | 24.51 | 27.53 | 27.44 |
| Pound of wool sold | .39 | .43 | .58 | .50 | .62 | .58 | .68 | .48 | .59 | .49 | .45 |
| Dozen of eggs sold | .27 | .39 | .37 | .31 | .28 | .26 | .33 | .24 | .25 | .34 | .29 |
| RETURN ABOVE FEED COST PER: | | | | | | | | | | | |
| Dairy cow | \$81.83 | \$161.27 | \$156.86 | \$162.86 | \$183.05 | \$199.71 | \$230.01 | \$275.08 | \$304.72 | \$324.18 | \$373.65 |
| Cwt. of hogs produced | 3.93 | 6.09 | 6.47 | 4.62 | 4.57 | 12.13 | 7.85 | 5.70 | 6.21 | 12.39 | 5.17 |
| Ewe | 6.97 | 11.16 | 9.47 | 6.18 | 5.40 | 8.85 | 8.64 | 4.12 | 8.17 | 7.84 | 11.29 |
| Hen | 1.82 | 2.11 | 1.60 | 1.39 | 1.27 | .39 | 1.34 | .23 | .83 | 1.41 | .59 |
| Cwt. of feeder cattle prod. | 2.98 | 6.40 | 7.37 | 4.76 | 1.78 | 7.06 | 1.03 | 1.61 | 4.45 | 11.25 | 3.78 |
| FEED COST PER: | | | | | | | | | | | |
| Dairy cow | \$63.13 | \$123.22 | \$142.59 | \$147.05 | \$169.62 | \$200.19 | \$216.61 | \$212.34 | \$221.87 | \$227.94 | \$246.53 |
| Cwt. of hogs produced | 7.52 | 13.23 | 12.95 | 10.65 | 10.65 | 11.39 | 12.69 | 11.70 | 11.54 | 12.19 | 12.06 |
| Ewe | 7.92 | 8.07 | 10.73 | 11.17 | 13.46 | 16.00 | 15.56 | 18.81 | 23.29 | 23.90 | 23.69 |
| Hen | 2.38 | 4.39 | 4.76 | 3.78 | 3.28 | 3.31 | 3.71 | 3.37 | 3.05 | 3.11 | 2.97 |
| Cwt. of feeder cattle prod. | 11.80 | 23.08 | 19.46 | 18.83 | 19.10 | 20.44 | 23.15 | 21.10 | 21.17 | 22.16 | 22.08 |
| PRICE OF FEED: | | | | | | | | | | | |
| Corn (per bu.) | \$.71 | \$ 1.29 | \$ 1.31 | \$ 1.11 | \$.99 | \$ 1.13 | \$ 1.19 | \$ 1.12 | \$ 1.02 | \$ 1.05 | \$ 1.15 |
| Barley (per bu.) | .59 | 1.31 | 1.16 | .92 | .91 | .98 | 1.02 | 1.04 | .96 | .85 | .85 |
| Oats (per bu.) | .46 | .75 | .74 | .59 | .61 | .63 | .66 | .64 | .62 | .56 | .60 |
| Oilmeal (per cwt.) | 2.30 | 3.84 | 4.19 | 3.73 | 4.36 | 4.60 | 5.25 | 5.00 | 5.10 | 5.00 | 5.00 |
| Alfalfa (per ton) | 9.90 | 18.40 | 18.30 | 18.20 | 19.40 | 23.00 | 21.00 | 20.00 | 20.00 | 20.00 | 20.00 |

* Information not available.

Footnote for pages 23, 24, 25.

The charges for unpaid family labor and board for hired labor were changed from year to year. The rates for the period 1940 to 1970 are as follows:

| Year | Unpaid family labor | Charge for 2nd operator | Board for hired labor | Year | Unpaid family labor | Charge for 2nd operator | Board for hired labor |
|---------|---------------------|-------------------------|-----------------------|---------|---------------------|-------------------------|-----------------------|
| 1940 | \$ 45 | \$ 45 | \$ 18 | 1956-60 | \$135 | \$135 | \$ 38 |
| 1941 | 50 | 50 | 20 | 1961-64 | 150 | 200 | 40 |
| 1942 | 60 | 60 | 25 | 1965 | 160 | 275 | 45 |
| 1943 | 75 | 75 | 25 | 1966 | 160 | 300 | 45 |
| 1944 | 85 | 85 | 25 | 1967 | 160 | 300 | 45 |
| 1945 | 90 | 90 | 25 | 1968 | 160 | 300 | 45 |
| 1946 | 100 | 100 | 30 | 1969 | 160 | 300 | 45 |
| 1947-55 | 125 | 125 | 36 | 1970 | 250 | 500 | 60 |

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. 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, 1967, and 1970.

In calculating labor earnings, interest on farm capital was charged at the rate of 5 percent until 1967, 5.5 percent for 1968 and 1969, and 6 percent in 1970.

These adjustments should be considered in comparing 1970 with previous years.