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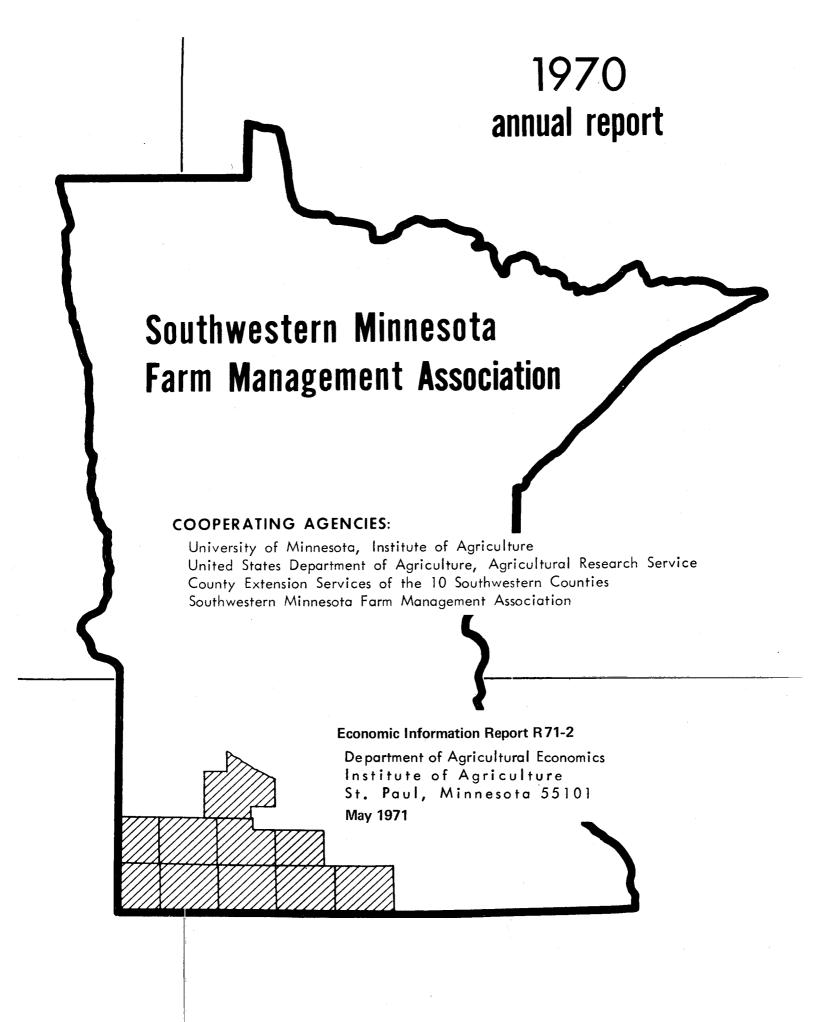
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## Prepared by T. R. Nodland and Janet B. Otis\*

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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 southwestern Minnesota counties are cooperating with the Southwestern Minnesota Farm Management Association in maintaining a farm management service. The Association was organized in the fall of 1939 by farmers in that part of the state for the purpose of studying the farm business through farm records. 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 and Applied Economics under the direction of T. R. Nodland. Extension work in connection with the supervision of this project is handled by Duane Wilson. Erlin Weness is the field agent for this project.

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

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
Cottonwood	24	John Regier, President William Janzen, Director	Paul Sandager
Faribault	14	John C. Stewart, Jr., Director Wayne Weber, Director	Gene Williams
Jackson	17	Loren Ulbricht, Director Vernon Voss, Director	Ray Palmby
Martin	8	Willard Peters, Director	Floyd Bellin, Jr.
Murray	19	Malcolm McLean, Director Loren Richardson, Director	Reuben Boxrud
Nobles	28	Rodney Langseth, Director Milton Fellows, Secretary-Treasurer Donald Gingerich, Director Henry J. Peterson, Vice-President	Robert Koehler Eugene Bromenshenkle
Pipestone	14	John Blankers, Director	Kenneth Rose
Redwood	21	Harold Deal, Director Francis Boerboom, Director	Ernest Johnson
Watonwan	10	Owen Francis, Director	John Ankeny
Total	155		

The data for 140 farms are shown in the tables on succeeding pages. Fifteen farms were omitted from all of the 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 was, nevertheless, wide variation in the methods and practices followed by these men. It is reasonable to assume that similar variation occurs 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	
				Jan. 1	Dec. 31
Size of	farm (acres)			442	
	business (work units)**			445	
D				\$ 2112	\$ 2244
Dairy c				1247	1336
	airy cattle ttle (incl. feeders)			21618	17651
Hogs	core (luci. reeders)			5274	3738
	incl. feeders)			149	159
	(incl. turkeys)			325	253
	ive livestock total			\$30725	\$25381
Froduct Horses	ive livestock total			\$ 7	\$ 10
	eed and feed			\$19461	\$23656
	nd trucks (farm share)			\$ 2299	\$ 2339
	s and crop machinery		•	16097	17564
	ck equipment			2497	2550
	ry and equipment total			\$20893	<b>\$2245</b> 3
Land	Ty and equipment of dar			\$82502	\$82502
	gs, fences, etc.			\$20871	\$21194
2411411	<b>30, 1000</b>				
Total f	arm capital managed			\$174459	\$175196
	arm capital managed	28 most	profitable	\$174459 28 least	
	arm capital managed	28 most Jan. 1	profitable Dec. 31	**	
Item				28 least	profitabl
Item Size of	farm (acres)	Jan. l		28 least Jan. l	profitabl
Item Size of		Jan. 1 610		28 least   Jan. 1 422	profitabl Dec. 31
Item Size of Size of	<pre>farm (acres) business (work units)**</pre>	Jan. 1 610		28 least   Jan. 1 422 396 \$ 1647	profitabl Dec. 31
Item Size of Size of	<pre>farm (acres) business (work units)** ows</pre>	Jan. 1 610 583	Dec. 31	28 least   Jan. 1 422 396 \$ 1647 1021	profitabl Dec. 31 \$ 1815 924
Item Size of Size of Dairy c	<pre>farm (acres) business (work units)** ows airy cattle</pre>	Jan. 1 610 583 \$ 3184	\$ 3374 1888 17387	28 least   Jan. 1 422 396 \$ 1647 1021 26586	profitabl Dec. 31 \$ 1815 924 19360
Item Size of Size of Dairy c Other d Beef ca	<pre>farm (acres) business (work units)** ows</pre>	Jan. 1 610 583 \$ 3184 1720 21167 6178	\$ 3374 1888 17387 4068	28 least   Jan. 1 422 396 \$ 1647 1021 26586 6559	profitabl Dec. 31 \$ 1815 924 19360 3994
Item Size of Size of Dairy c Other d Beef ca	<pre>farm (acres) business (work units)** ows airy cattle</pre>	Jan. 1 610 583 \$ 3184 1720 21167	\$ 3374 1888 17387 4068 39	28 least   Jan. 1	\$ 1815 924 19360 3994 348
Item Size of Size of Dairy c Other d Beef ca Hogs Sheep (	<pre>farm (acres) business (work units)**  ows airy cattle ttle (incl. feeders) incl. feeders)</pre>	Jan. 1 610 583 \$ 3184 1720 21167 6178	\$ 3374 1888 17387 4068 39 543	28 least   Jan. 1	profitabl Dec. 31 \$ 1815 924 19360 3994 348 618
Item Size of Size of Dairy c Other d Beef ca Hogs Sheep ( Poultry	<pre>farm (acres) business (work units)**  ows airy cattle ttle (incl. feeders)</pre>	Jan. 1 610 583 \$ 3184 1720 21167 6178 32	\$ 3374 1888 17387 4068 39 543 \$27299	28 least   Jan. 1	\$ 1815 924 19360 3994 348 618 \$27059
Item Size of Size of Dairy c Other d Beef ca Hogs Sheep ( Poultry	<pre>farm (acres) business (work units)**  ows airy cattle ttle (incl. feeders) incl. feeders) (incl. turkeys)</pre>	Jan. 1 610 583 \$ 3184 1720 21167 6178 32 546 \$32827 \$ 0	\$ 3374 1888 17387 4068 39 543 \$27299 \$ 10	28 least   Jan. 1	\$ 1815 924 19360 3994 348 618 \$27059 \$ 9
Item Size of Size of Dairy c Other d Beef ca Hogs Sheep ( Poultry Product Horses	<pre>farm (acres) business (work units)**  ows airy cattle ttle (incl. feeders) incl. feeders) (incl. turkeys)</pre>	Jan. 1 610 583 \$ 3184 1720 21167 6178 32 546 \$32827 \$ 0 \$30446	\$ 3374 1888 17387 4068 39 543 \$27299 \$ 10 \$40221	28 least   Jan. 1	\$ 1815 924 19360 3994 348 618 \$27059 \$ 9
Item Size of Size of Dairy c Other d Beef ca Hogs Sheep ( Poultry Product Horses Crops,	<pre>farm (acres) business (work units)**  ows airy cattle ttle (incl. feeders) incl. feeders) (incl. turkeys) ive livestock total</pre>	Jan. 1 610 583 \$ 3184 1720 21167 6178 32 546 \$32827 \$ 0 \$30446 \$ 2242	\$ 3374 1888 17387 4068 39 543 \$27299 \$ 10 \$40221 \$ 2484	28 least   Jan. 1	\$ 1815 924 19360 3994 348 618 \$27059 \$ 19951 \$ 2368
Item Size of Size of Dairy c Other d Beef ca Hogs Sheep ( Poultry Product Horses Crops, Autos a	farm (acres) business (work units)**  ows airy cattle ttle (incl. feeders)  incl. feeders) (incl. turkeys) ive livestock total  seed and feed	Jan. 1 610 583  \$ 3184 1720 21167 6178 32 546 \$32827 \$ 0 \$30446 \$ 2242 18910	\$ 3374 1888 17387 4068 39 543 \$27299 \$ 10 \$40221 \$ 2484 21908	28 least   Jan. 1	\$ 1815 924 19360 3994 348 618 \$27059 \$ 9 \$19951 \$ 2368 17671
Item Size of Size of Dairy c Other d Beef ca Hogs Sheep ( Poultry Product Horses Crops, Autos a Tractor Livesto	farm (acres) business (work units)**  ows airy cattle ttle (incl. feeders) incl. feeders) (incl. turkeys) ive livestock total seed and feed and trucks (farm share) s and crop machinery ock equipment	Jan. 1 610 583  \$ 3184 1720 21167 6178 32 546 \$32827 \$ 0 \$30446 \$ 2242 18910 3054	\$ 3374 1888 17387 4068 39 543 \$27299 \$ 10 \$40221 \$ 2484 21908 2869	28 least   Jan. 1	\$ 1815 924 19360 3994 348 618 \$27059 \$ 19951 \$ 2368 17671 3294
Item Size of Size of Dairy c Other d Beef ca Hogs Sheep ( Poultry Product Horses Crops, Autos a Tractor Livesto	farm (acres) business (work units)**  ows airy cattle ttle (incl. feeders) incl. feeders) (incl. turkeys) ive livestock total seed and feed and trucks (farm share) s and crop machinery	Jan. 1 610 583  \$ 3184 1720 21167 6178 32 546 \$32827 \$ 0 \$30446 \$ 2242 18910 3054 \$24206	\$ 3374 1888 17387 4068 39 543 \$27299 \$ 10 \$40221 \$ 2484 21908 2869 \$27261	28 least   Jan. 1	\$ 1815 924 19360 3994 348 618 \$27059 \$ 9 \$19951 \$ 2368 17671 3294 \$23333
Item Size of Size of Dairy c Other d Beef ca Hogs Sheep ( Poultry Product Horses Crops, Autos a Tractor Livesto	farm (acres) business (work units)**  ows airy cattle ttle (incl. feeders) incl. feeders) (incl. turkeys) ive livestock total seed and feed and trucks (farm share) s and crop machinery ock equipment	Jan. 1 610 583  \$ 3184 1720 21167 6178 32 546 \$32827 \$ 0 \$30446 \$ 2242 18910 3054 \$24206 \$114585	\$ 3374 1888 17387 4068 39 543 \$27299 \$ 10 \$40221 \$ 2484 21908 2869 \$27261 \$114585	28 least   Jan. 1	\$ 1815 924 19360 3994 348 618 \$27059 \$ 9 \$19951 \$ 2368 17671 3294 \$23333 \$78724
Item Size of Size of Dairy c Other d Beef ca Hogs Sheep ( Poultry Product Horses Crops, Autos a Tractor Livesto Machine	farm (acres) business (work units)**  ows airy cattle ttle (incl. feeders) incl. feeders) (incl. turkeys) ive livestock total seed and feed and trucks (farm share) s and crop machinery ock equipment	Jan. 1 610 583  \$ 3184 1720 21167 6178 32 546 \$32827 \$ 0 \$30446 \$ 2242 18910 3054 \$24206	\$ 3374 1888 17387 4068 39 543 \$27299 \$ 10 \$40221 \$ 2484 21908 2869 \$27261	28 least   Jan. 1	profitabl

<sup>\*</sup> 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.

<sup>\*\*</sup> See page 15 for an explanation of "work units."

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

T.L.	Average	28 most	28 least
Item	of 140	profitable	profitable
	farms	farms	farms
FARM RECEIPTS			
Dairy cattle sold	\$ 1035	\$ 1749	\$ 766
Dairy products sold	4950	9075	2961
Beef cattle sold (incl. feeders)	36585	36566	39121
Hogs sold	12673	16673	12504
Sheep and wool sold (incl. feeders)	89	34	192
Horses sold	1	•••	4
Poultry sold (incl. turkeys)	409	78	559
Eggs sold	1146	2099	2912
Corn sold	8561	12135	6588
Soybeans sold	7060	11719	4828
Small grain sold	596	554	975
Other crops sold	3669	6153	3038
Machinery and equipment sold and gas tax refund	499	491	597
Income from work off the farm	1108	1413	761
Miscellaneous farm income	1048	1903	927
Total farm sales	\$79429	\$100642	\$76733
Increase in farm capital	737	8160	Ψ10133 -
Family living from the farm	351	328	352
	\$80517	\$109130	\$77085
Total farm receipts	<b>Φ</b> 80317	\$103120	Φ1706S
FARM EXPENSES	¢ 160	ф <b>Б</b> О	<b>#</b> 000
Dairy cattle bought	\$ 162	\$ 53	\$ 222
Beef cattle bought (incl. feeders)	18358	16952	18980
Hogs bought	1025	766	1425
Sheep bought (incl. feeders)	16	4	32
Horses bought	5	10	9
Poultry bought (incl. turkeys)	263	564	270
Miscellaneous livestock expense	1030	1334	962
Feed bought	9639	10812	10721
Fertilizers bought	3458	4573	3218
Other crop expenses	3916	5424	4279
Custom work hired	1648	2215	1424
Gas, oil, and grease (farm share)	1700	1981	1710
Repair truck and auto (farm share)	632	730	652
Repair and upkeep of farm real estate	684	1186	703
Repair & upkeep of tractors and crop machinery	1729	2206	1681
Repair & upkeep of livestock equipment	404	547	427
Wages of hired labor	2072	3391	1670
Electricity expense (farm share)	429	582	475
Real estate taxes	2352	3274	2186
Telephone and general farm expense	876	910	1132
Total cash operating expense	\$50398	\$57514	\$52178
Trucks and autos bought (farm share)	666	896	600
	5101	7780	4061
Crop and power machinery bought			
Livestock equipment bought	573	555 2051	735
New real estate and improvements	2067 #F 000F	3051	2176 #50750
Total farm purchases	\$58805	\$69796	\$59750
Decrease in farm capital	_		7099
Interest on farm capital @ 6.0 percent	10490	14041	10578
Unpaid family labor	788	1638	598
Board furnished hired labor	131	<u>266</u>	97
Total farm expenses	\$70214	\$85741	\$78122
Labor earnings	\$10303	\$23389	<b>\$-</b> 1037

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

Item	Average of 140 farms	28 most profitable farms	28 least profitable farms
RETURNS AND NET INCREASES			
Dairy cows	\$ 5007	\$ 9121	\$ 3067
Other dairy cattle	1308	2263	697
Beef breeding herd	680	223	1294
Feeder cattle	13628	15641	11709
Hogs	10170	13869	8576
Sheep - farm flock	85	37	146
Sheep - feeders		-	<del>-</del>
Chickens	929	1613	2481
Turkeys	306		370
All livestock	\$32113	\$42767	\$28340
Value of feed fed to livestock	23513	25826	24737
Return over feed from livestock	\$ 8600	\$16941	\$ 3603
Crops, seed and feed	30540	45321	24147
Income from labor off the farm	615	727	246
Miscellaneous farm income	1048	<u> 1903</u>	927
Total returns and net increases	\$40803	\$64892	\$28923
EXPENSES AND NET DECREASES			
Horses	3.	<b>-</b> .	10
Truck	687	818	763
Auto (farm share)	817	842	853
Electricity (farm share)	429	582	475
Hired power	1115	1493	982
Tractors and crop machinery	5838	7520	5660
Livestock equipment	919	1285	1031
Buildings, fencing and tiling	2419	3386	2521
Miscellaneous livestock expense	1030	1334	962
Labor	3525	6018	2807
Real estate taxes	2352	3274	2186
General farm expense and telephone	876	910	1132
Interest on farm capital at 6.0 percent	10490	14041	10578
Total expenses and net decreases	\$30500	\$41503	\$29960
Labor earnings	\$10303	\$23389	<b>\$-1</b> 037

<sup>\*</sup> Earnings statements, as shown in table 2, stress purchases and sales, inventory adjustments are entered as one item--either an increase or 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 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 (Operator's Share), 1970

Total acres in farm Owned Rented Total farm capital - operator's    Stocks and bonds    Life insurance cash value    Notes and accounts receivable    Shares in cooperative organizations    Outside real estate    Cash on hand and in bank    Household furnishings and clothing    Personal share of auto and truck    Farm dwelling Total non-farm assets - operator's Total assets - operator's    Mortgages on farm operated    Mortgages on other real estate    Chattel mortgages    Notes payable    Accounts payable    Total liabilities - operator's Net worth Change in net worth	21	Owners
Owned Rented Total farm capital - operator's Stocks and bonds Life insurance cash value Notes and accounts receivable Shares in cooperative organizations Outside real estate Cash on hand and in bank Household furnishings and clothing Personal share of auto and truck Farm dwelling Total non-farm assets - operator's Total assets - operator's Mortgages on farm operated Mortgages on other real estate Chattel mortgages Notes payable Accounts payable Total liabilities - operator's Net worth Change in net worth	Jan. l	Dec. 31
Rented Total farm capital - operator's    Stocks and bonds    Life insurance cash value    Notes and accounts receivable    Shares in cooperative organizations    Outside real estate    Cash on hand and in bank    Household furnishings and clothing    Personal share of auto and truck    Farm dwelling Total non-farm assets - operator's Total assets - operator's    Mortgages on farm operated    Mortgages on other real estate    Chattel mortgages    Notes payable    Accounts payable Total liabilities - operator's Net worth Change in net worth	303	_
Total farm capital - operator's Stocks and bonds Life insurance cash value Notes and accounts receivable Shares in cooperative organizations Outside real estate Cash on hand and in bank Household furnishings and clothing Personal share of auto and truck Farm dwelling Total non-farm assets - operator's Total assets - operator's Mortgages on farm operated Mortgages on other real estate Chattel mortgages Notes payable Accounts payable Total liabilities - operator's Net worth Change in net worth	303	į.
Stocks and bonds Life insurance cash value Notes and accounts receivable Shares in cooperative organizations Outside real estate Cash on hand and in bank Household furnishings and clothing Personal share of auto and truck Farm dwelling Total non-farm assets - operator's Total assets - operator's Mortgages on farm operated Mortgages on other real estate Chattel mortgages Notes payable Accounts payable Total liabilities - operator's Net worth Change in net worth	<b>_</b>	
Stocks and bonds Life insurance cash value Notes and accounts receivable Shares in cooperative organizations Outside real estate Cash on hand and in bank Household furnishings and clothing Personal share of auto and truck Farm dwelling Total non-farm assets - operator's Total assets - operator's Mortgages on farm operated Mortgages on other real estate Chattel mortgages Notes payable Accounts payable Total liabilities - operator's Net worth Change in net worth	\$125573	\$124075
Notes and accounts receivable Shares in cooperative organizations Outside real estate Cash on hand and in bank Household furnishings and clothing Personal share of auto and truck Farm dwelling Total non-farm assets - operator's Total assets - operator's Mortgages on farm operated Mortgages on other real estate Chattel mortgages Notes payable Accounts payable Total liabilities - operator's Net worth Change in net worth	3246	3595
Shares in cooperative organizations Outside real estate Cash on hand and in bank Household furnishings and clothing Personal share of auto and truck Farm dwelling Total non-farm assets - operator's Total assets - operator's Mortgages on farm operated Mortgages on other real estate Chattel mortgages Notes payable Accounts payable Total liabilities - operator's Net worth Change in net worth	3511	. 3835
Outside real estate Cash on hand and in bank Household furnishings and clothing Personal share of auto and truck Farm dwelling Total non-farm assets - operator's Total assets - operator's Mortgages on farm operated Mortgages on other real estate Chattel mortgages Notes payable Accounts payable Total liabilities - operator's Net worth Change in net worth	1366	2659
Outside real estate Cash on hand and in bank Household furnishings and clothing Personal share of auto and truck Farm dwelling Total non-farm assets - operator's Total assets - operator's Mortgages on farm operated Mortgages on other real estate Chattel mortgages Notes payable Accounts payable Total liabilities - operator's Net worth Change in net worth	3279	3761
Household furnishings and clothing Personal share of auto and truck Farm dwelling Total non-farm assets - operator's Total assets - operator's Mortgages on farm operated Mortgages on other real estate Chattel mortgages Notes payable Accounts payable Total liabilities - operator's Net worth Change in net worth	5419	5514
Personal share of auto and truck Farm dwelling Total non-farm assets - operator's Total assets - operator's Mortgages on farm operated Mortgages on other real estate Chattel mortgages Notes payable Accounts payable Total liabilities - operator's Net worth Change in net worth	3880	4635
Personal share of auto and truck Farm dwelling Total non-farm assets - operator's Total assets - operator's Mortgages on farm operated Mortgages on other real estate Chattel mortgages Notes payable Accounts payable Total liabilities - operator's Net worth Change in net worth	4463	4844
Total non-farm assets - operator's Total assets - operator's Mortgages on farm operated Mortgages on other real estate Chattel mortgages Notes payable Accounts payable Total liabilities - operator's Net worth Change in net worth	873	743
Total non-farm assets - operator's Total assets - operator's Mortgages on farm operated Mortgages on other real estate Chattel mortgages Notes payable Accounts payable Total liabilities - operator's Net worth Change in net worth	8444	8380
Total assets - operator's Mortgages on farm operated Mortgages on other real estate Chattel mortgages Notes payable Accounts payable Total liabilities - operator's Net worth Change in net worth	\$ 34481	\$ 37966
Mortgages on other real estate Chattel mortgages Notes payable Accounts payable Total liabilities - operator's Net worth Change in net worth	\$160054	\$162041
Mortgages on other real estate Chattel mortgages Notes payable Accounts payable Total liabilities - operator's Net worth Change in net worth	37226	35564
Notes payable Accounts payable Total liabilities - operator's Net worth Change in net worth	724	. 712
Accounts payable Total liabilities - operator's Net worth Change in net worth	20041	17720
Total liabilities - operator's Net worth Change in net worth	6677	6853
Total liabilities - operator's Net worth Change in net worth	867	1281
Net worth Change in net worth	\$ 65535	\$ 62130
	\$ 94519	\$ 99911
		\$ 5392
Item 61 Part	t-owners 15	Renters

Item	61 Par	t-owners	15 Re	enters
	Jan. l	Dec. 31	Jan. l	Dec. 31
Total acres in farm	479		398	
Owned	265		· ·	
Rented	214		398	
Total farm capital - operator's	\$135102	\$140176	\$ 58312	\$ 63942
Stocks and bonds	3209	3490	651	686
Life insurance cash value	4244	4573	3368	3894
Notes and accounts receivable	886	1489	2862	2641
Shares in cooperative organizati	lons 1518	1763	686	721
Outside real estate	2143	3397		· 📻
Cash on hand and in bank	3013	3171	1832	1856
Household furnishings and clothi	ing 4186	4301	2898	3082
Personal share of auto	974	1021	871	809
Farm dwelling	6647	7806	3	3
Total non-farm assets - operator's	\$ 26820	\$ 31011	\$ 13171	\$ 13692
Total assets - operator's	\$161922	\$171187	\$ 71483	\$ 77634
Mortgages on farm operated	34798	35442	<u>-</u> ,	
Mortgages on other real estate	156	1239		-
Chattel mortgages	23680	23432	17105	18694
Notes payable	11185	10654	10207	11036
Accounts payable	1027	1230	1537	1445
Total liabilities - operator's	\$ 70846	\$ 71997	\$ 28849	\$ 31175
Net worth	\$ 91076	\$ 99190	\$ 42634	\$ 46459
Change in net worth		\$ 8114		\$ 3825

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

Thom	29	79 Part-	23
Item	Owners	owners	Renters
FARM RECEIPTS			
Dairy cattle sold	\$ 139	\$ 1083	\$ 1381
Dairy products sold	817	4905	6504
Beef cattle sold (incl. feeders)	40038	34606	23752
Hogs sold	10610	13676	9500
Sheep and wool sold (incl. feeders)	147	31	149
Horses sold	4		
Poultry sold (incl. turkeys)	1541	135	<del>-</del>
Eggs sold	71	1368	
Corn sold	7173	6334	5585
Soybeans sold	5299	7100	3208
Small grain sold	320	498	529
Other crops sold	2719	4114	1625
Machinery and equipment sold	425	1367	546
Income from work	636	1180	1475
Miscellaneous farm income	928	1206	<u>526</u>
(1) Total farm sales	\$70867	<b>\$7760</b> 3	\$54780
(2) Increase in farm capital	201	3934	7112
(3) Family living from the farm	<u>321</u>	334	390
(4) Total farm receipts (1)+(2)+(3)	\$71188	\$81871	\$62282
FARM EXPENSES  Dainy control of bought	\$ 48	\$ 121	\$ 274
Dairy cattle bought Beef cattle bought (incl. feeders	18976	18478	12760
Hogs bought	769	1120	855
Sheep bought (incl. feeders)	709	7	22
Horses bought	6	6	
Poultry bought (incl. turkeys)	285	175	2
Miscellaneous livestock expenses	739	979	1129
Feed bought	8637	9843	7356
Fertilizers bought	2857	3140	3316
Other crop expenses	3525	3841	3275
Custom work hired	1163	1680	1306
Gas, oil and grease bought (farm share)	1385	1824	1441
Repair and upkeep of power & crop machinery	1705	2524	2462
Repair and upkeep of real estate	690	723	231
Repair and upkeep of livestock equipment	330	416	390
Wages of hired labor	1801	2252	1543
Electricity expense (farm share)	367	445	327
Raal estate taxes	1945	1321	
Cash rent	11	2360	3850
Telephone and general farm expense	835	883	566
Interest paid	4252	<u>4575</u>	<u> 2611</u>
Total cash operating expense	\$50333	<b>\$5671</b> 3	\$43716
Trucks and autos bought (farm share)	496	765	614
Crop and power machinery bought	3291	5164	6008
Livestock equipment bought	3 <b>7</b> 8	658	459
Farm purchases and real estate improvements	2585	5730	2534
(5) Total farm purchases	\$57083	\$69030	\$53331
(6) Decrease in farm capital	997		
(7) Interest on operator's farm capital (6%)	3783	3432	1146
(8) Unpaid family labor	280	307	421
(9) Board furnished hired labor	91	141	142
(10) Total farm expense $(5)+(6)+(7)+(8)+(9)$	\$62234	\$72910	\$55040
(11) Labor earnings (4)-(10)	\$ 8954	\$ 8961	\$ 7242
(12) Ret. to capital & family labor (7)+(8)+(11)	\$13017	\$12700	\$ 8809

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

Item	Average of 62 farms	12 high in return to cap. and fam. labor	12 low in return to cap. and fam. labor
Number of persons - family	5.1	5.6	5.6
Number of adult equivalents - family - other*	4.4	<b>4.8</b> .4	4.1
EXPENSES			
Food and meals bought Operating expense and supplies Furnishings and equipment Clothing and clothing materials Personal care and spending Education Recreation Gifts and special events Medical and hospital insurance Church and welfare Personal share of auto expense Upkeep on dwelling Pers. share of tel. & elec. xpense	\$ 1536 500 575 654 255 379 336 247 760 489 403 168 161	\$ 1656 611 564 666 207 609 370 331 789 729 537 40 233	\$ 1751 542 498 832 241 223 337 245 688 367 312 20 136
Total cash living expense Personal share of new autos New dwelling Taxes Life insurance Other savings and investments	\$ 6463 229 1085 1310 875 1255	\$ 7342 186 5054 1689 867 285	\$ 6192 190 - 764 778 116
Total household & personal cash expenses	\$11217	\$15423	\$ 8040
Family living from the farm	402	506	382
Total cash expense and perquisites RECEIPTS	\$11619	\$15929	\$ 8422
Return to capital and family labor Income from outside investments Other personal income	\$11693 257 709	\$24698 116 890	\$ 2324 202 1272

<sup>\*</sup> Hired help or others boarded.

Table 7. Family Living from the Farm, 1970

Item	Average of 140 farms	Average of 140 farms
Number of adult equivalents - family	4.1	
- other	•2	
Whole milk	375 qts.	\$ 35
Cream	2 pts.	Ψ 55 -
Cattle	927 lbs.	241
Hogs	288 lbs.	59
Sheep	2 lbs.	-
Poultry	38 lbs.	1 1
Eggs	18 doz.	5
		\$351

<sup>\*</sup> 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 of 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	Number 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	22		xxxxxxx	\$ 4801
2 or 3	55		XXXXXXXXXXXXXX	9723
4 or 5	51		XXXXXXXXXXXXXXXXXXX	11158
6 or 7	12		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	19419

The array in Table 8 indicates that it will be worthwhile 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 140 farms	28 most profit- able farms	28 least profit- able farms
Labor earnings	\$10303	\$23389	<b>\$-1037</b>
Crop yields*	100	105	90
Percent tillable land in high return crops**	68.4	67.3	67.3
Return for \$100 feed to productive livestock***	100	115	84
Productive livestock units per 100 acres****	38.9	33.4	41.0
Size of business - work units	445	583	396
Work units per worker	262	278	248
All pow., mach., equip., & bldg. exp. per work unit		\$28.21	\$33.31
Items related to some of the above measures:			
Index of return for \$100 feed from:			
Dairy cattle (see pages 16 and 17)	100	123	82
Beef cattle - breeding herd (see page 19)	100	_	96
Beef cattle - feeders (see page 20) Hogs (see page 18)	100 100	120 101	79 88
Sheep - farm flock (see page 21)	100	-	88
Sheep - feeders	100	••	
Turkeys	100	-	
Chickens (see page 22)	100	101	108
Number of animal units	149.6	173.1	156.0
Work units on crops	187	253	177
Work units on productive livestock	233	301	209
Other work units	25	29	10
Number of family workers	1.2	1.3	1.2
Number of hired workers	<u>.5</u>	<u>.8</u> 2.1	4
Total number of workers	1.7	2.1	1.6
Power and crop machinery expense per work unit	\$21.67	\$19.88	\$23.88
Livestock equipment expense per work unit	2.06	2.16	2.62
Building and fencing expense per work unit	5.87	6.17	6.81
Crop acres per farm	338	463	327
Tractor and crop machinery expense per crop acre	\$17.64	\$16.23	\$17.40
Rate earned on capital managed (\$7000 deducted for operator's labor)	7.9%	13.0%	1.4%

<sup>\*</sup> Given as a percentage of the average.

<sup>\*\*</sup> Crops are marked in Table 10 as A, B, C, and D. All of the acres of A crops, one-half of the acres in B crops, and one-fourth of the acres in C crops are used in calculating percent of tillable land in high return crops.

<sup>\*\*\*</sup> An index weighted by the animal units of livestock.

<sup>\*\*\*\*</sup> Acres in timber not pastured, roads, waste, and farmstead were not included.

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 140 farms included in this summary are located between the dotted lines across the center of this page.

Labor earn- ings	Crop yield	High return s crops	n prod	units per	Work	Work units per worker	Pow.,mach. eq.&bldg. exp. per work unit
\$26300	140	88.5	140	71.0	810	425	\$13.00
24300	135	86.0	135	67.0	765	405	15.00
22300	130	83.5	130	63.0	720	385	17.00
20300	125	81.0	125	59.0	675	365	19.00
18300	120	78.5	120	55.0	630	345	21.00
16300	115	76.0	115	51.0	585	325	23.00
14300	110	73.5	110	47.0	540	305	25.00
12300	105	71.0	105	43.0	495	285	27.00
10300	100	68.5	100	39.0	450	265 —	29.00
8300	95	66.0	95	35.0	405	245	31.00
6300	90	63.5	90	31.0	360	225	33.00
4300	85	61.0	85	27.0	315	205	35.00
2300	80	58.5	80	23.0	270	185	37.00
300	75	56.0	75	19.0	225	165	39.00
-1700	70	53.5	70	15.0	180	145	41.00
-3700	65	51.0	65	11.0	135	125	43.00
-5700	60	48.5	60	7.0	90	105	45.00

Table 10. Distribution of Acres in Farm, 1970

Wheat C 15 1.1 9.9 Cats for silage C 9 1.2 19.2 Cats for grain D 95 23.0 33.9 Flax C 12 4.4 51.3 Cher small grain D 2 0.4 25.0 Total small grain and peas 104 30.7 41.3  Corn grain A 140 171.5 171.5 Coybeans for grain B 120 91.2 106.4 Corn silage B 91 15.6 24.0 Corn silage B 91 15.6 24.0 Corn silage B 91 15.6 24.0 Cother cultivated crops D 2 2.0 133.5 Cother cultivated crops 140 281.6  Cats legume hay C 1 2.2 25.0 Cats legume hay D 5 .4 13.0 Cathonial hay D 3 .4 18.0 Cathorial filable land in hay 18 23.7 28.1  Cathorial filable pasture D 19 1.0 7.6 Catal tillable land in pasture A 10.6 Cathorial filable land or cropped D 6 .4 10.6 Cathorial filable land 140 390.1  Cathorial filable pasture B 105 49.3 65.7 Cathorial filable land 140 390.1	Item	Crop ratings	Number growing this crop	Average of 140 farms	Ave. per farm raising each crop
Mate   C   15   1.1   9.9   20   20   20   33.0   33.9   51   20   30.0   33.9   51   20   30.0   33.9   51   20   30.0   30.7   30.0	Canning peas	В	4	0.6	21.2
Cats for silage       C       9       1.2       19.2         Cats for grain       D       95       23.0       33.9         Flax       C       12       4.4       51.3         Other small grain       D       2       0.4       25.0         Total small grain and peas       104       30.7       41.3         Corn grain       A       140       171.5       171.5         Soybeans for grain       B       120       91.2       106.4         Sweet corn       B       6       1.3       31.2         Corn silage       B       91       15.6       24.0         Other cultivated crops       D       2       2.0       133.5         Total cultivated crops       140       281.6       281.6         Alfalfa hay       B       117       22.7       27.2         Other legume hay       C       1       .2       25.0         Other tame hay       D       3       .4       18.0         Alfalfa pasture       B       31       3.4       15.3         Total tillable pasture       D       19       1.0       7.6         Total tillable land       140	Wheat				
Description	Oats for silage				
Table   C			•		
Description	Flax				
Total small grain and peas  104  30.7  41.3  Corn grain	Other small grain				
Soybeans for grain Soveet corn				30.7	
Sweet corn         B         6         1.3         31.2           Corn silage         B         91         15.6         24.0           Other cultivated crops         D         2         2.0         133.5           Total cultivated crops         140         281.6         281.6           Alfalfa hay         B         117         22.7         27.2           Other legume hay         C         1         .2         25.0           Other tame hay         D         5         .4         13.0           Annual hay         D         3         .4         18.0           Total tillable land in hay         118         23.7         28.1           Alfalfa pasture         B         31         3.4         15.3           Other tillable pasture         D         19         1.0         7.6           Total tillable land in pasture         47         4.4         13.2           Seed grain program (diverted acres)         B         105         49.3         65.7           Cillable land not cropped         D         6         .4         10.6           Total tillable pasture         68         19.2           Timber not pastured         16 <td>Corn grain</td> <td><b>A</b></td> <td>140</td> <td>171.5</td> <td>171.5</td>	Corn grain	<b>A</b>	140	171.5	171.5
Corn silage		В	120	91.2	106.4
Description		В	6	1.3	31.2
Total cultivated crops  140 281.6  28	Corn silage	В	91	15.6	24.0
Total cultivated crops  140  281.6  281.8  281.6  281.8  2	Other cultivated crops	D	2	2.0	133.5
Other legume hay       C       1       .2       25.0         Other tame hay       D       5       .4       13.0         Annual hay       D       3       .4       18.0         Total tillable land in hay       118       23.7       28.1         Alfalfa pasture       B       31       3.4       15.3         Other tillable pasture       D       19       1.0       7.6         Total tillable land in pasture       47       4.4       13.2         Geed grain program (diverted acres) B       105       49.3       65.7         Cillable land not cropped       D       6       .4       10.6         Total tillable land       140       390.1       390.1         Wild hay       38       2.1         Ion-tillable pasture       68       19.2         Cimber not pastured       16       1.0         Coads and waste       18.1         Carmstead       11.8         Total acres in farm       442.3         Percent land tillable       88.2	Total cultivated crops		140	281.6	
Description	Alfalfa hay		117	22.7	27.2
Annual hay Total tillable land in hay 118 23.7 28.1  Alfalfa pasture B 31 3.4 15.3  Other tillable pasture D 19 1.0 7.6  Total tillable land in pasture 47 4.4 13.2  Seed grain program (diverted acres) B 105 49.3 65.7  Cillable land not cropped D 64 10.6  Total tillable land 140 390.1 390.1  Wild hay 38 2.1  Jon-tillable pasture 68 19.2  Cimber not pastured 68 19.2  Cimber not pastured 16 1.0  Loads and waste 18.1  Carmstead 11.8  Total acres in farm 442.3				. 2	25.0
Total tillable land in hay  Alfalfa pasture B 31 3.4 15.3 2ther tillable pasture D 19 1.0 7.6 Total tillable land in pasture 47 4.4 13.2  Seed grain program (diverted acres) B 105 49.3 65.7 Cillable land not cropped D 6 140 390.1 390.1  Wild hay 38 2.1 Ion-tillable pasture 68 19.2 Cimber not pastured 68 19.2 Cimber not pastured 68 19.2 Cimber not pastured 68 18.1 Carmstead Total acres in farm 442.3  Percent land tillable 88.2				.4	13.0
Alfalfa pasture		D	3	4	18.0
Other tillable pasture       D       19       1.0       7.6         Total tillable land in pasture       47       4.4       13.2         Seed grain program (diverted acres) B       105       49.3       65.7         Tillable land not cropped D       6       .4       10.6         Total tillable land       140       390.1       390.1         Wild hay Indicate a state of the st	Total tillable land in hay		118	23.7	28.1
Total tillable land in pasture 47 4.4 13.2  Seed grain program (diverted acres) B 105 49.3 65.7  Tillable land not cropped D 6 .4 10.6  Total tillable land 140 390.1 390.1  Wild hay 38 2.1  Winn-tillable pasture 68 19.2  Timber not pastured 16 1.0  Total acres in farm 11.8  Total acres in farm 442.3	Alfalfa pasture				15.3
Geed grain program (diverted acres)       B       105       49.3       65.7         Fillable land not cropped       D       6       .4       10.6         Total tillable land       140       390.1       390.1         Wild hay       38       2.1         Wind land land       68       19.2         Simber not pastured       16       1.0         Goads and waste       18.1         Farmstead       11.8         Total acres in farm       442.3         Percent land tillable       88.2		D	19	<u>1.0</u>	7.6
Tillable land not cropped       D       6       .4       10.6         Total tillable land       140       390.1       390.1         Wild hay       38       2.1         Won-tillable pasture       68       19.2         Simber not pastured       16       1.0         Roads and waste       18.1         Farmstead       11.8         Total acres in farm       442.3         Percent land tillable       88.2	Total tillable land in pasture		47	4.4	13.2
Total tillable land       140       390.1       390.1         Wild hay       38       2.1         Won-tillable pasture       68       19.2         Simber not pastured       16       1.0         Roads and waste       18.1         Sarmstead       11.8         Total acres in farm       442.3         Percent land tillable       88.2		) в	105	49.3	65.7
Wild hay       38       2.1         Non-tillable pasture       68       19.2         Simber not pastured       16       1.0         Roads and waste       18.1         Sarmstead       11.8         Total acres in farm       442.3         Percent land tillable       88.2		D	6	4	10.6
Ion-tillable pasture       68       19.2         imber not pastured       16       1.0         loads and waste       18.1         armstead       11.8         Total acres in farm       442.3         ercent land tillable       88.2	Total tillable land		140	390.1	390.1
<pre>imber not pastured</pre>	Wild hay				
Roads and waste  Farmstead  Total acres in farm  Recent land tillable  88.2				19.2	
Total acres in farm  Percent land tillable  88.2			16	1.0	
Total acres in farm 442.3 Percent land tillable 88.2	Roads and waste			18.1	
Percent land tillable 88.2				11.8	
	Total acres in farm			442.3	
ercent tillable land in high return crops 68.4	Percent land tillable			88.2	
	ercent tillable land in high retu	rn crops			

<sup>\*</sup> 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
		Take the second	
Canning peas, dollars			\$68.17
Wheat, bu.			26.2
Oats for silage, tons			7.1
Oats for grain, bu.			59.2
Flax, bu.			16.7
Corn grain, bu.			97.4
Soybeans, bu.			32.6
Sweet corn, tons			5.0
Corn silage, tons			15.0
Alfalfa hay, tons	and the second of the second o	e kanala ayan sa karan sa kar	3.5
Other legume hay, tons			2.4
Annual hay, tons	and the second of the second o		2.6
Feed grain program, dollar			\$59.54
	. 3		
Wild hay, tons			1.7

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. Returns Above Listed Costs per Acre of Crops, 1970

Item	Corn grain	Corn silage	Soy- beans
Number of farms reporting	137	90	117
Yield per acre Price per unit	97.4 \$1.25	15.0 \$7.25	32.6 \$2.75
Total return	\$121.75	\$108.75	\$ 89.65
Fertilizer Seeds, herbicides, etc. Total listed costs	\$ 15.80 12.94 \$ 28.74	\$ 15.37 12.75 \$ 28.12	\$ .57 7.79 \$ 8.36
Return above listed costs	\$ 93.01	\$ 80.63	\$ 81.29
Item	Wheat	Alfalfa hay	Oats
Number of farms reporting	14	115	92
Yield per acre Price per unit	26.2 \$1.65	3.5 \$20.00	59.2 \$ .60
Total return	\$ 43.23	\$ 70.00	\$ 35.52
Fertilizer Seeds, herbicides, etc. Total listed costs	\$ 5.46 9.31 \$ 14.77	\$ 3.34 5.83 \$ 9.17	\$ 3.27 4.46 \$ 7.73

### 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
1 Celli	WOIR UNITS	rcent	WOLK UILLES
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 - feeder	.3 per 100 lbs.	Corn fodder	1.0 per acre
Hogs	.12 per 100 lbs.	Alfalfa hay	.6 per acre
Turkeys	.l 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		
	of ware of the contract of		

An animal unit represents one dairy cow or bull, two other dairy cattle,  $1\frac{1}{4}$  beef cows or bulls, 1 feeder steer or heifer, 3 1/3 other beef cattle, 7 sheep, 14 lambs,  $2\frac{1}{2}$  hogs, 5 pigs, 50 hens, or 1100 pounds of turkeys produced.

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

Item	Average of 31 farms	15 farms highest in butterfat per cow	15 farms lowest in butterfat per cow
Pounds of milk per cow	11637	12890	10400
Percent of butterfat in milk	3.6	3.6	3.6
Pounds of butterfat per cow	410	454	367
Price received per pound of butterfat sold	\$1.42	\$1.41	\$1.43
Price received per cwt. of milk sold	5.03	5.01	5.08
Value of produce per cow:			
Dairy product sales	\$568.77	\$623.26	\$518.10
Dairy produce used in home	5.03	6.22	4.00
Milk fed to livestock	6.96	9.68	3.83
Net increase in value of cows	-2.98	-2.52	-3.78
TOTAL VALUE PRODUCED	\$577.81	\$636.64	\$522.15
Feed cost per cow:			
Concentrates	\$148.75	\$147.31	\$147.38
Roughages	101.10	100.10	103.18
Pasture	6.34	4.36	7.68
TOTAL FEED COST	\$256.19	\$251.77	\$258.24
RETURNS ABOVE FEED COST PER COW	\$321.62	\$384.87	\$263.91
RETURNS FOR \$100 OF FEED	\$237	\$265	\$212
Feeds per cow, lbs.:			
Corn	4513	4565	4505
Small grain	590	457	669
Commercial feeds	733	800	646
Total concentrates	5836	5822	5820
Total hay	6538	6827	6213
Silage	9870	8797	11339
Feed cost per pound of butterfat	\$ .62	\$ .55	\$ .70
Feed cost per cwt. of milk produced	2.20	1.95	2.50
Number of cows*	38.3	41.3	35.9

<sup>\*</sup> 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 31 farms	15 farms highest in butterfat per cow	
NET INCREASE IN VALUE OF OTHER DAIRY CAT	TLE \$133.76	\$145.07	\$121.21
TOTAL FEED COST PER HEAD	78.22	84.90	72.72
RETURNS ABOVE FEED COST PER HEAD	55.54	60.17	48.49
RETURNS FOR \$100 OF FEED	\$192	\$179	\$201
Feed per head, lbs.: Concentrates Hay Silage Whole milk	1339 2329 2831 144	1620 2628 2317 180	1132 2137 3409 94
Number of head of other dairy	44.0	50.3	38.8

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

Value of produce per cow: Dairy products Net increase in value of dairy cattle TOTAL VALUE PRODUCED	\$573.81 <u>161.73</u> \$735.54	\$629.48 203.39 \$832.87	\$522.10 121.55 \$643.65
TOTAL FEED COST PER COW	\$344.60	\$359.24	\$330.74
RETURNS ABOVE FEED COST PER COW	\$390.94	\$473.63	\$312.91
RETURNS PER \$100 OF FEED	\$223	\$243	\$204
Feed per cow, lbs.: Concentrates Hay Silage	7592 9164 13554	8103 10183 12672	7151 8241 14966
Miscellaneous expenses per cow	\$43.80	\$ 48.96	\$ 36.50

Table 18. Feed Costs and Returns from Hogs, 1970

		····			
		90 fa	rms with breed	ding stock	
Item	Average of 101 farms	Average of 90 farms	18 farms highest in returns above feed	18 farms lowest in returns above feed	<pre>ll farms     with     purchased     feeder pigs</pre>
Pounds of hogs produced	79174	81730	70348	61998	58262
NET INCREASE IN VALUE PER CWT. PRODUCED FEED COST PER CWT. PRODUCED RETURN ABOVE FEED COST PER CWT. PRODUCED	\$17.42 13.27 \$ 4.15	\$18.00 13.30 \$ 4.70	\$20.38 11.25 \$ 9.13	\$15.05 <u>16.50</u> \$-1.45	\$12.69 12.98 \$-0.29
RETURNS FOR \$100 OF FEED	\$137	\$141	\$182	\$ 92	\$100
Price received per cwt. sold Weight per hog sold	\$21.98 242	\$22.04 243	\$24.02 223	\$20.38 245	\$21.55 231
Miscellaneous costs per cwt. produced	•53	•55	•50	•54	•29
Feed per cwt. hogs produced, lbs.: Corn Small grain Commercial feeds Total concentrates	286 23 <u>121</u> 430	284 24 <u>124</u> 432	251 30 <u>92</u> 373	338 31 <u>164</u> 533	297 11 <u>98</u> 406
Total number of litters raised Number of pigs born per litter Number of pigs weaned per litter	45 8.8 7.2	50 8.8 7.3	42 9.2 7.7	45 8•3 6•5	4 8.1 6.2
Number of feeder pigs bought Total weight of feeders purchased Price paid per feeder pig	43 1754 \$21.67		5	4 - -	308 11926 \$21.00

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

Item	Average of 18 farms
TOTAL VALUE PRODUCED PER COW	\$151.28
Feed cost per cow: Concentrates Roughages Pasture TOTAL FEED COST	\$ 33.27 44.54 27.25 \$105.06
RETURNS ABOVE FEED COST PER COW	\$ 46.22
RETURNS FOR \$100 OF FEED	\$156
Miscellaneous costs per cow	\$ 8.96
Feed per cow, lbs.: Concentrates Hay Silage	1311 3136 3761
Pounds of beef produced	19922
Number of cows Number of other beef cattle	45.4 27.9

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

Item	Average of 86 farms
Pounds of beef produced	94658
NET INCREASE IN VALUE OF FEEDERS	\$24.72
Feed cost per cwt. of beef produced: Concentrates Roughages Pasture TOTAL FEED COSTS	\$17.24 4.05 .15 \$21.44
RETURNS ABOVE FEED COST PER CWT. BEEF PRODUCED	\$ 3.28
RETURNS FOR \$100 OF FEED	\$121
Miscellaneous costs per cwt. of beef produced	\$ .55
Feeds per cwt. beef produced, lbs.: Corn Small grain Commercial feeds	677 10 54
Total concentrates Total hay Silage	741 203 564
Price paid per cwt. for beef bought Price received for feeder cattle sold	\$33.49 28.44
Number of animal units	140.1

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

	***************************************		<u> </u>	
Item				Average of 7
			. (	farms
Value 20				
Value of produce per ewe: Wool				
Net increase in value of sheep				\$ 6.83
TOTAL VALUE PRODUCED	+J			22.88 \$29.71
				Ψ27•11
Feed costs per ewe:				$\mathcal{F} = \mathcal{F}^{\mathcal{F}}$
Concentrates	* .			\$ 7.00
Roughages Pasture				9.09
TOTAL FEED COSTS				4.38 \$20.47
				Ψ2O+47
RETURNS ABOVE FEED COST PER EWE				\$ 9.24
RETURNS FOR \$100 OF FEED				¢160
101110				\$168
Miscellaneous expenses per ewe				\$ 2.40
Feeds per ewe, lbs.:				
Concentrates		e de la companya de l	i de la secono de la compa	304
Нау				877
Silage				90
Price non out of lembs shid	•			ana a maa
Price per cwt. of lambs sold				\$26.76
Price per pound of wool sold			Santa santa santa santa	\$ .66
Pounds of wool per sheep sheared				8.3
D		4 - 4	<b>V</b> (1) (4)	
Percent lamb crop* Percent death loss*	4.00		* * *	113
ercent death 1085				7.5
Pounds of sheep produced				4622
Number of head of ewes				49
		and the state of the state of		J 1

<sup>\*</sup>Lambs which die during month of birth are not included.

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

Item	Average of 22 farms
Value of produce per hen: Eggs sold and used in home Net increase in value of chickens TOTAL VALUE PRODUCED	\$4.91 80 \$4.11
TOTAL FEED COST PER HEN	\$3.47
RETURNS ABOVE FEED COST PER HEN	\$ .64
RETURNS FOR \$100 OF FEED	\$122
Miscellaneous expenses per hen	\$ .10
Feed per hen, lbs.: Grain Commercial feed Total concentrates	62 44 106
Price received per dozen eggs sold Eggs laid per hen Feed costs per dozen eggs produced	\$ .29 206 \$ .21
Average number of hens on farm during the year Percent death loss of hens	2052 12.0
Number of chicks bought Number of hens bought	1401 974

<sup>\*</sup> Includes feeds and returns from laying and rearing flock.

Table 23. Summary by Years

Item	Average 1945-49	Average 1950-54	Average	Average	306E	1066	1067	3040	1060	1070
Number of farms	140	138	1955-59	1960-64	1965	1966	1967	1968	1969	1970
Total farm capital managed	\$40590	\$57692	135 \$75246	135 \$99907	156	153	144	136	137	140
Monthly charge for:	\$40390	<b>45/092</b>	<b>\$75240</b>	\$999U1	\$118992	\$122684	\$137702	\$152461	\$160250	\$174828
Unpaid family labor*	118	130	134	147	160	160	160	160	160	050
Second operator*	118	130	134	167	275	300	160 300	160 300	160 300	250 500
Board for hired labor*	33	36	38	40	45	45	45	45	45	60
board for miled labor.	33	30	30	40	40	45	45	40	40	00
FARM EXPENSES										
Dairy cattle bought	\$ 175	\$ 215	\$ 151	\$ 146	\$ 145	\$ 135	\$ 99	\$ 91	\$ 317	\$ 162
Beef cattle bought	2027	4097	7619	11153	10975	12295	12940	15453	16215	18358
Hogs bought	447	448	473	723	738	827	801	1040	1099	1025
Sheep bought (incl. feeders)	365	599	517	69	27	16	50	65	98	16
Coultry bought (incl. turkeys)	165	190	225	244	238	186	234	151	119	263
lorses bought	11	6	5	3	6	2		1	1	5
iscellaneous livestock expense	248	378	525	592	644	660	738	861	989	1030
ertilizer			906	1223	1945	2311	3058	2545	2969	3458
iscellaneous crop expenses	869**	1234 <del>**</del>		1184	1782	1988	2720	3108	3410	3916
eed bought	3191	4323	5503	7225	8191	9588	7867	8449	8848	9639
Custom work hired	356	438	694	874	1041	1050	1284	1198	1532	1648
ower and crop machinery (new)	1669	1864	1891	2057	3881	4151	4177	4612	5334	5767
ower and crop machinery (upkeer	) 1365	1735	2200	2718	3164	3279	3561	3643	4287	4490
ivestock equipment (new)	. 99	164	327	415	505	565	480	477	925	573
ivestock equipment (upkeep)	111	135	194	207	<b>2</b> 3 <b>5</b>	252	230	263	290	404
buildings and fencing (new)	676	881	832	1018	1172	1353	1949	1964	1912	2067
buildings and fencing (upkeep)	319	312	320	338	37 <b>7</b>	425	420	420	530	684
lired labor	794	883	993	1092	1175	1223	1399	1549	1833	2072
axes	403	622	910	1449	1843	1841	2000	1735	2070	2352
eneral farm expense	174	260	364	430	517	518	581	617	739	876
otal farm purchases	\$13464	\$18784	\$25557	\$33160	\$38601	\$42665	\$44590	\$48242	\$53517	\$58805
Decrease in farm capital	-	. <b>-</b>	_	· _ ·	·- ·-	·	_	_	-	-
nterest on farm capital***	2030	2885	3762	4991	5950	6134	7574	8385	8814	10490
Inpaid family labor	377	358	379	500	702	657	699	667	536	788
Board furnished hired labor	107	91	92	82	89	72	69	88	104	131
Cotal farm expense	\$15978	\$22118	\$29790	\$38733	\$45342	\$49528	\$52932	\$57382	\$62971	\$70214
					- N - N - N	entral de la companya				

<sup>\*</sup> These adjustments should be considered in comparing 1970 with previous years.

<sup>\*\*</sup> Includes fertilizer.

<sup>\*\*\*</sup> Interest was calculated at the rate of 5% on capital managed from 1940 to 1966, at 5.5% from 1967 to 1969, and at 6% in 1970.

Table 23. Summary by Years (continued)

Item	Average 1945-49	Average 1950-54	Average 1955 <b>-</b> 59	Average 1960-64	1965	1966	1967	1968	1969	1970
FARM RECEIPTS										
Dairy cattle	\$ 573	\$ 695	\$ 585	\$ 563	\$ 626	\$ 628	\$ 774	\$ 853	\$ 1070	\$ 1035
Dairy products	988	1085	1450	1888	2199	2633	3398	3849	4141	4950
Beef cattle	4246	7918	13025	20180	21094	21099	23989	28325	25460	36585
Hogs	6775	7455	7158	8431	11321	13877	10724	11548	13559	12673
Sheep and wool	651	978	981	263	174	137	158	197	245	89
Poultry (incl. turkeys)	525	526	530	505	440	432	366	385	315	409
Eggs	1035	965	1013	1074	863	1103	863	647	881	1146
Horses	23	8	5	4	1	1		2	_	1
Corn	1138	1855	3149	3401	3961	4707	6078	6138	7042	8561
Soybeans	_	_	. <b>-</b>		_	4567	5566	4894	6059	7060
Small grain	2055	1236	807	882	598	594	504	627	554	596
Other crops*	879	1023	1759	3855	6452	2482	2026	2961	4483	3669
Machinery and equipment sold	364	367	266	373	457	267	434	504	492	499
Agricultural adjustment payment		64	44	43	33	_	_		-	**
Income from work off the farm	313	349	398	396	593	665	784	723	947	1108
Miscellaneous farm income	<u>78</u>	<u>137</u>	306	386	503	678	844	1015	1026	1048
Total farm sales	\$19708	\$24661	\$31476	\$42244	\$49315	\$53870	\$56508	\$62668	\$66274	\$79429
Increase in farm capital	2395	1845	1157	1205	6359	7896	1988	5596	10113	737
Family living from the farm	666	<u>553</u>	278	288	274	<u>279</u>	289	292	330	351
Total farm receipts	\$22769	\$27059	\$32911	\$43737	\$55948	\$62045	\$58785	\$68556	\$76717	\$80517
Total farm expenses	<u> 15978</u>	22118	29790	<u> 38733</u>	<u>45342</u>	49528	52932	57382	62971	70214
Labor earnings	\$ 6791	\$ 4941	\$ 3121	\$ 5004	\$10606	\$12517	\$ 5853	\$11174	\$13746	\$10303
MEASURES OF FARM ORGANIZATION A	ND MANAGE	MENT					,			
Percent high return crops**	56.4	59.7	63.4	68.1	65.4	67.5	70.0	67.4	65.8	68.4
Livestock units per 100 acres <del>**</del>	× 20.3	30.3	39.4	43.0	37.4	38.7	35.6	35.2	35.6	38.9
Nork units <del>****</del>	501	470	469	533	556	576	449	452	456	445
Work units per worker****	285	283	279	318	321	360	281	266	285	264
Expenses per work unit****	\$6.23	\$9.49	\$12.81	\$13.42	\$14.95	\$15.74	\$21.32	\$22.78	\$26.76	\$29.60

<sup>\*</sup> Includes soybeans 1940-1965.

<sup>\*\*</sup> The crop ratings used in calculating the percentage of the tillable land in high return crops were changed considerably in 1944 and 1957.

<sup>\*\*\*</sup> The basis for computing animal units was revised in 1951.

<sup>\*\*\*\*</sup> The basis for computing work units was revised in 1953 and 1967.

Table 24. Summary of Miscellaneous Items by Years

Item	Average 1945 <b>-</b> 49	Average 1950-54	Average 1955-59	Average 1960-64	1965	1966	1967	1968	1969	1970	
RETURN ABOVE FEED COST PER					•						
	\$114.96	\$111.51	\$125.34	\$140.97	\$141.25	\$197.29	\$245.53	\$273.02	\$276.88	\$321.62	
Animal unit in beef herd	46.46	42.51	30.08	30.77	10.75	52.76	Ψ2-3•30 *	*	₩270•00	**************************************	3
100 lbs. feeder cattle produced	8.87	5.26	5.88	1.94	7.12	.68	4.87	8.21	7.81	3.28	2
Ewe	-		_	6.80	11.06	12.20	6.49	10.32	11.32	9.24	
100 lbs. hogs produced	6.29	6.23	4.52	4.28	11.22	8.03	5.41	6.29	12.58	4.15	
Hen	2.15	1.09	1.05	•91	•28	1.32	05	.81	1.55	•64	
FEED COST PER	-										
Dairy cow	121.21	140.00	147 40	101 70	010 00	000 43	224.24				
Animal unit in beef herd	68.30	142.90	147.40	181.72	213.32	222.41	234.84	238.97	254.48	256.19	
100 lbs. feeder cattle produced	21.66	97.48	83.69	72.97	72.46	69.60	*	*	*	<del>*</del>	
Ewe	21.00	22.68	17.70	18.32	21.12	22.09	18.62	18.53	21.06	21.44	
100 lbs. hogs produced	12.70	10.05	-	13.42	15.10	17.01	16.29	16.60	17.88	20.47	
Hen	4.28	12.95	10.48	10.65	12.22	12.75	12.49	11.55	12.52	13.27	
Hen	4.28	4.66	3.89	3.45	3.48	4.01	3.38	3.18	3.48	3.46	$\mathcal{C}$
MISCELLANEOUS LIVESTOCK INFORMAT	ION										1
Number of dairy cows	5.3	4.7	5.2	5.7	6.1	6.2	6.7	7.3	7.5	8.5	
Head in beef breeding herd	9.4	11.1	10.6	4.9	4.3	6.2	7.7	8.5	8.6	8.8	
Pounds of feeder cattle produced	6676	12137	27685	41929	43527	46887	47171	47937	46409	58147	
Litters of pigs	19.5	21.7	24.6	28.0	27.8	29.1	27.2	29.6	30.3	32.2	
Pounds of hogs produced	34292	37265	44369	52828	52981	57697	52975	59840	56242	57118	
Number of hens	202	187	204	219	193	179	196	147	156	190	
Pounds of butterfat per dairy co		282	311	349	365	372	397	403	399	410	
Pigs weaned per litter	6.3	6.7	7.2	7.0	7.2	7.4	7.5	7.4	399 7.3	7.2	
Percent lamb crop	109	107	111	103	101	119	103	112	119	113	
Eggs per hen	171	180	200	208	205	224	217	201	195	206	

<sup>\*</sup> Information not available.

Table 24. Summary of Miscellaneous Items by Years (continued)

Item	Average 1945-49	Average 1950-54	Average 1955 <b>-</b> 59	Average 1960-64	1965	1966	1967	1968	1969	1970
PRICE RECEIVED PER										v, e
Pound of butterfat in milk	\$ .98	\$ .94	\$ .91	\$ .94	\$ .98	\$ 1.14	\$ 1.21	\$ 1.27	\$ 1.34	\$ 1.42
100 pounds of fat cattle	21.71	26.61	22.51	22.86	23.72	24.39	24.67	25.81	28.03	28.44
Pound of wool	.41	.60	•51	•58	•53	.66	•44	•52	•53	.66
Dozen of eggs	•37	• 35	. 29	•27	• 25	•31	.22	. 25	•34	•29
100 pounds of hogs sold	19.54	19.43	15.96	15.45	20.34	23.07	19.27	18.74	23.06	21.98
PRICE OF FEED										
Corn, bu.	1.24	1.31	1.11	•99	1.13	1.19	1.12	1.02	1.05	1.15
Oats, bu.	.74	•74	•59	.61	<b>.</b> 63	.66	•64	.62	•56	<b>.6</b> 0
Barley, bu.	1.31	1.15	•92	•91	•98	1.02	1.04	•96	•85	.85
Alfalfa hay, ton	18.60	18.30	18.20	19.40	23.00	21.00	20.00	20.00	20.00	20.00
Timothy hay, ton	10.86	10.60	10.58	11.22	13.00	12.20	11.60	11.60	11.60	11.60
Corn silage, ton	6.07	6.00	6.08	6.60	7.75	7.30	7.25	7.25	7.25	7.25
Soybean meal, cwt.	4.15	4.50	***	4.36	4.60	5.25	5.00	<b>-</b> .	-	-
ACRES PER FARM								•		
Small grains	73.9	70.5	48.8	39.5	26.3	27.4	24.2	29.5	28.3	30.7
Cultivated crops	100.3	107.0	153.7	187.0	228.9	233.8	267.6	270.0	257.2	281.6
Tillable land in hay	19.1	28.1	34.9	31.0	29.1	27.4	27.4	27.5	25.9	23.7
Tillable land in pasture	15.2	14.8	13.2	6.8	6.1	4.5	4.0	3.8	4.2	4.4
Tillable land not cropped	2.4	1.4	2.2	25.9 <del>*</del>	46.4*	35.0*	26.7*	<u>46.0</u> *	<u>66.2</u> *	49.7 <del>*</del>
Total tillable land	210.9	221.8	252.8	290.2	336.8	328.1	349.9	376.8	381.8	390.1
Non-tillable land	43.1	43.4	40.5	44.6	48.2	44.0	49.6	50.4	<u>50.6</u>	52.2
Total acres per farm	254.0	265.2	293.3	334.8	385.0	372.1	399.5	427.2	432.4	442.3
YIELDS PER ACRE										
Flax, bu.	13.7	11.5	13.0	13.6	18.2	10.9	19.3	17.3	16.1	16.7
Oats, bu.	46.3	41.4	51.7	54.8	61.2	58.9	61.3	60.4	63.9	59.2
Corn grain, bu.	47.8	53.7	57.1	71.3	62.7	84.0	81.2	93.8	99.8	97.4
Corn silage, tons	8.4	9.2	9.7	11.8	10.7	13.2	12.3	13.9	15.4	15.0
Soybeans, bu.	14.4	19.8	22.5	25.5	20.2	26.9	23.7	25.7	30.5	32.6
Alfalfa hay, tons	2.1	2.5	2.5	3.0	2.8	2.9	3.0	3.2	3.7	3.5

<sup>\*</sup> Including feed grain program.