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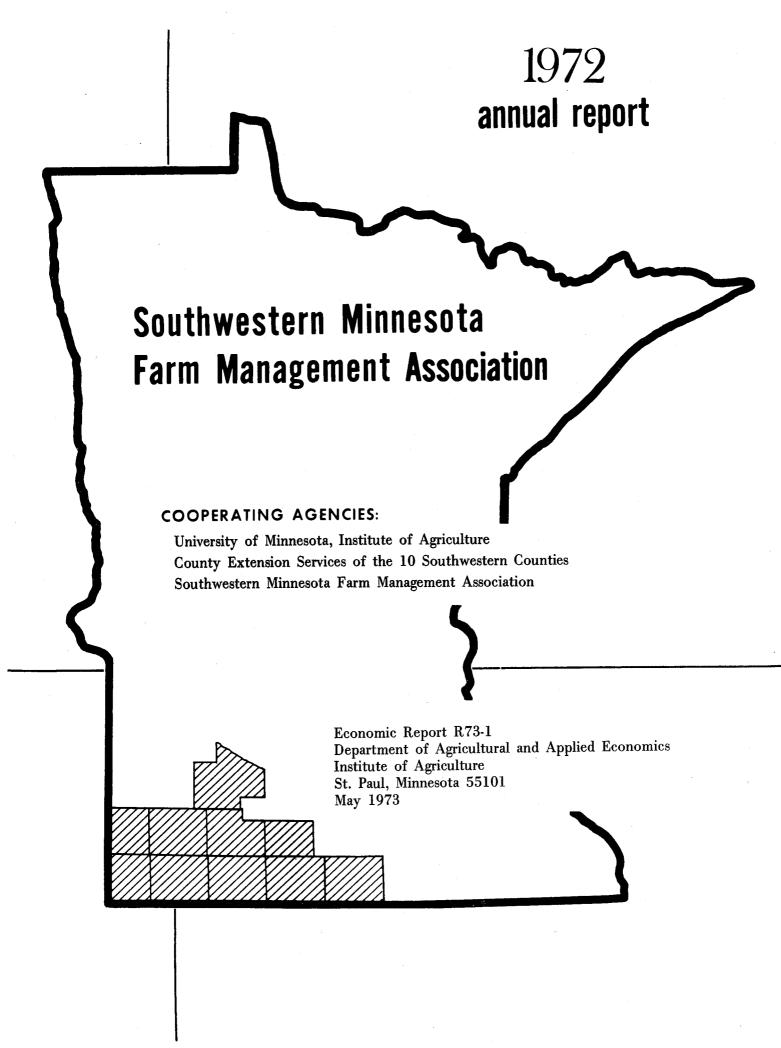
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## Prepared by Janet B. Otis and T. R. Nodland\*

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#### INTRODUCTION

The Department of Agricultural and Applied Economics and the Agricultural Extension Service of the University of Minnesota, 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.

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 and Arnold Sandager. Erlin Weness is the field agent for this project. At the end of the year, S. A. Engene, P. R. Hasbargen and Bruce Ness aided in closing of the records.

<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 1972.

County	No. of records	Association Officers	County Agricultural Extension Agent
Cottonwood	26	Arnold Regier, Director William Janzen, Director	Paul Sandager
Faribault	12	John C. Stewart, Jr., Director Wayne Weber, Director	Gene Williams
Jackson	16	Loren Ulbricht, President Norman Pohlman, Director	Ray Palmby
Martin	10	Larry Krenz, Director	Floyd Bellin, Jr.
Murray	23	Dennis Miller, Director Carl Peterson, Director	Reuben Boxrud
Nobles	31	Rodney Langseth, Director Milton Fellows, Secretary-Treasurer Gary Hibma, Director Jerry Taylor, Director	Robett Koehler Eugene Bromenshenkle
Pipestone	17	John Blankers, Vice-President Virgil Schuld, Director	Kenneth Rose
Redwood	22	Richard Van Hecke, Director Dennis Fultz, Director	Ernest Johnson
Watonwan	12	Owen Francis, Director	John Ankeny
Total	169		

The data for 156 farms are shown in the tables on succeeding pages. Thirteen 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 farm units, 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, 1972\*

Item			Average of	
Size of farm (acres)			Jan. 1	Dec. 31
Size of business (work units)**	•		475 460	
Dairy cows				ć 1170
Other dairy cattle			\$ 2365 1578	\$ 2370 2072
Beef cattle (incl. feeders)			20973	30526
Hogs			5052	7413
Sheep (incl. feeders)		•	106	104
Poultry (incl. turkeys)			327	176
Productive livestock total			\$ 30401	\$ 42661
Horses			\$ 10	\$ 18
Crops, seed, and feed			\$ 22132	\$ 31257
Autos and trucks (farm share)			2393	2509
Tractors and crop machinery			18441	19594
Livestock equipment			2843	3131
Machinery and equipment total			\$ 23677	\$ 25234
Land***			\$ 96959	\$ 96959
Buildings, fences, etc.***			23816	24835
Total farm capital managed			\$196995	\$220964
Item	31 most	profitable	31 least pr	rofitable
			JI ICUOC P	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31
Size of farm (acres) Size of business (work units)**				
Size of farm (acres)	Jan. 1 753		Jan. 1 336	
Size of farm (acres) Size of business (work units)** Dairy cows Other dairy cattle	Jan. 1 753 712	Dec. 31	Jan. 1 336 319	Dec. 31
Size of farm (acres) Size of business (work units)** Dairy cows Other dairy cattle Beef cattle (incl. feeders)	Jan. 1 753 712 \$ 1028 905 41144	\$ 898 1919 68626	Jan. 1 336 319 \$ 2475 1324 8055	\$ 2542 1659 8139
Size of farm (acres) Size of business (work units)** Dairy cows Other dairy cattle Beef cattle (incl. feeders) Hogs	Jan. 1 753 712 \$ 1028 905 41144 7881	\$ 898 1919 68626 11969	Jan. 1 336 319 \$ 2475 1324 8055 2927	\$ 2542 1659 8139 3264
Size of farm (acres) Size of business (work units)**  Dairy cows Other dairy cattle Beef cattle (incl. feeders) Hogs Sheep (incl. feeders)	Jan. 1 753 712 \$ 1028 905 41144 7881 26	\$ 898 1919 68626 11969 26	Jan. 1 336 319 \$ 2475 1324 8055 2927 334	\$ 2542 1659 8139 3264 350
Size of farm (acres) Size of business (work units)**  Dairy cows Other dairy cattle Beef cattle (incl. feeders) Hogs Sheep (incl. feeders) Poultry (incl. turkeys)	Jan. 1 753 712 \$ 1028 905 41144 7881 26 3	\$ 898 1919 68626 11969 26	Jan. 1 336 319 \$ 2475 1324 8055 2927 334 425	\$ 2542 1659 8139 3264 350 133
Size of farm (acres) Size of business (work units)**  Dairy cows Other dairy cattle Beef cattle (incl. feeders) Hogs Sheep (incl. feeders) Poultry (incl. turkeys) Productive livestock total	Jan. 1 753 712 \$ 1028 905 41144 7881 26 3 \$ 50987	\$ 898 1919 68626 11969 26 2 \$ 83440	Jan. 1 336 319 \$ 2475 1324 8055 2927 334 425 \$ 15540	\$ 2542 1659 8139 3264 350 133 \$ 16087
Size of farm (acres) Size of business (work units)**  Dairy cows Other dairy cattle Beef cattle (incl. feeders) Hogs Sheep (incl. feeders) Poultry (incl. turkeys) Productive livestock total Horses	Jan. 1 753 712 \$ 1028 905 41144 7881 26 3	\$ 898 1919 68626 11969 26	Jan. 1 336 319 \$ 2475 1324 8055 2927 334 425 \$ 15540 \$ 10	\$ 2542 1659 8139 3264 350 133 \$ 16087 \$ 15
Size of farm (acres) Size of business (work units)**  Dairy cows Other dairy cattle Beef cattle (incl. feeders) Hogs Sheep (incl. feeders) Poultry (incl. turkeys) Productive livestock total Horses Crops, seed, and feed	Jan. 1 753 712 \$ 1028 905 41144 7881 26 3 \$ 50987 \$ 24 40268	\$ 898 1919 68626 11969 26 2 \$ 83440 \$ 52 59464	Jan. 1 336 319 \$ 2475 1324 8055 2927 334 425 \$ 15540 \$ 10 11978	\$ 2542 1659 8139 3264 350 133 \$ 16087 \$ 15 14626
Size of farm (acres) Size of business (work units)**  Dairy cows Other dairy cattle Beef cattle (incl. feeders) Hogs Sheep (incl. feeders) Poultry (incl. turkeys) Productive livestock total Horses Crops, seed, and feed Autos and trucks (farm share)	Jan. 1 753 712 \$ 1028 905 41144 7881 26 3 \$ 50987 \$ 24 40268 2981	\$ 898 1919 68626 11969 26 2 \$ 83440 \$ 52 59464 3393	Jan. 1 336 319 \$ 2475 1324 8055 2927 334 425 \$ 15540 \$ 10 11978 2198	\$ 2542 1659 8139 3264 350 133 \$ 16087 \$ 15 14626 2299
Size of farm (acres) Size of business (work units)**  Dairy cows Other dairy cattle Beef cattle (incl. feeders) Hogs Sheep (incl. feeders) Poultry (incl. turkeys) Productive livestock total Horses Crops, seed, and feed	Jan. 1 753 712 \$ 1028 905 41144 7881 26 3 \$ 50987 \$ 24 40268 2981 28741	\$ 898 1919 68626 11969 26 2 \$ 83440 \$ 52 59464 3393 32398	Jan. 1 336 319 \$ 2475 1324 8055 2927 334 425 \$ 15540 \$ 10 11978 2198 14910	\$ 2542 1659 8139 3264 350 133 \$ 16087 \$ 15 14626 2299 14415
Size of farm (acres) Size of business (work units)**  Dairy cows Other dairy cattle Beef cattle (incl. feeders) Hogs Sheep (incl. feeders) Poultry (incl. turkeys) Productive livestock total Horses Crops, seed, and feed Autos and trucks (farm share) Tractors and crop machinery	Jan. 1 753 712 \$ 1028 905 41144 7881 26 3 \$ 50987 \$ 24 40268 2981	\$ 898 1919 68626 11969 26 2 \$ 83440 \$ 52 59464 3393	Jan. 1 336 319 \$ 2475 1324 8055 2927 334 425 \$ 15540 \$ 10 11978 2198	\$ 2542 1659 8139 3264 350 133 \$ 16087 \$ 15 14626 2299
Size of farm (acres) Size of business (work units)**  Dairy cows Other dairy cattle Beef cattle (incl. feeders) Hogs Sheep (incl. feeders) Poultry (incl. turkeys) Productive livestock total Horses Crops, seed, and feed Autos and trucks (farm share) Tractors and crop machinery Livestock equipment	Jan. 1 753 712 \$ 1028 905 41144 7881 26 3 \$ 50987 \$ 24 40268 2981 28741 3491 \$ 35213	\$ 898 1919 68626 11969 26 2 \$ 83440 \$ 52 59464 3393 32398 4178 \$ 39969	Jan. 1 336 319 \$ 2475 1324 8055 2927 334 425 \$ 15540 \$ 10 11978 2198 14910 3266 \$ 20374	\$ 2542 1659 8139 3264 350 133 \$ 16087 \$ 15 14626 2299 14415 3201 \$ 19915
Size of farm (acres) Size of business (work units)**  Dairy cows Other dairy cattle Beef cattle (incl. feeders) Hogs Sheep (incl. feeders) Poultry (incl. turkeys) Productive livestock total Horses Crops, seed, and feed Autos and trucks (farm share) Tractors and crop machinery Livestock equipment Machinery and equipment total	Jan. 1 753 712 \$ 1028 905 41144 7881 26 3 \$ 50987 \$ 24 40268 2981 28741 3491	\$ 898 1919 68626 11969 26 2 \$ 83440 \$ 52 59464 3393 32398 4178	Jan. 1 336 319 \$ 2475 1324 8055 2927 334 425 \$ 15540 \$ 10 11978 2198 14910 3266	\$ 2542 1659 8139 3264 350 133 \$ 16087 \$ 15 14626 2299 14415 3201

<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 are included in the records from rented farms.

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

<sup>\*\*\*</sup> Real estate values are based on cost and thus do not reflect current market prices.

Table 2. Summary of Farm Earnings (Cash Statement), 1972

Item	Average of 156	31 most profitable	31 least profitable
	farms	farms	farms
FARM RECEIPTS			
Dairy cattle sold	\$ 2075	\$ 3444	\$ 1039
Dairy products sold	4891	2202	5335
Beef cattle sold (incl. feeders)	36866	79944	11366
Hogs sold	16461	24653	8854
Sheep and wool sold (incl. feeders)	96	31	280
Horses sold	1	5	
Poultry sold (incl. turkeys)	975		320
Eggs sold	761	2	1756
Corn sold	10049	16572	8534
Soybeans sold	9260	13810	6939
Small grain sold	395	714	387
Other crops sold	5460	10167	3723
Machinery & equipment sold and gas tax refund	587	628	285
Income from work off the farm	1194	1971	1536
Miscellaneous farm income	1253	1741	812
Total farm sales	\$ 90324	\$155884	
Increase in farm capital	23969	59911	\$ 51166
Family living from the farm	354		3068
Total farm receipts	\$114647	434	289
	3114047	\$216229	\$ 54523
FARM EXPENSES			
Dairy cattle bought	\$ 746	\$ 2169	\$ 204
Beef cattle bought (incl. feeders)	26764	62695	5273
Hogs bought	1818	1517	905
Sheep bought (incl. feeders)	.8	-	38
Horses bought	8	28	5
Poultry bought (incl turkeys)	231	<u> </u>	345
Miscellaneous livestock expense	1345	2069	922
Feed bought	10337	15389	6496
Fertilizers bought	3985	7140	2648
Other crop expenses	4844	7815	3367
Custom work hired	1835	2426	1518
Gas, oil, and grease (farm share)	1745	2362	1387
Repair truck and auto (farm share)	720	1031	647
Repair and upkeep of farm real estate	624	859	453
Repair & upkeep of tractors & crop machinery	2007	2979	1511
Repair & upkeep of livestock equipment	421	564	359
Wages of hired labor	2381	4592	1192
Electricity expense (farm share)	481	595	410
Real estate taxes	2613	4067	1890
Telephone and general farm expense	905	1205	856
Total cash operating expense	\$ 63818	\$119502	\$ 30426
Trucks and autos bought (farm share)	812	1314	680
Crop and power machinery bought	5929	10743	3401
Livestock equipment bought	991	1601	584
New real estate and improvements	3140	6727	1906
Total farm purchases	\$ 74690	\$139887	\$ 36997
Decrease in farm capital	+ , <del>-</del> 0,0	Q_37007	Ψ 30331
Interest on farm capital @ 6.0 percent	12539	21781	7971
Unpaid family labor	1284	2052	392
Board furnished hired labor	110	277	56
Total farm expenses	\$ 88623		***************************************
Labor earnings		\$163997	\$ 45416
	\$ 26024	\$ 52232	\$ 9107
Net cash income	\$ 15634	\$ 15997	\$ 14169

Table 3. Summary of Farm Earnings (Enterprise Statement), 1972\*

	Average	31 most	31 least
Item	of 156	profitable	profitable
. ▼	farms	farms	farms
RETURNS AND NET INCREASES			
Dairy cows	\$ 4976	\$ 2314	\$ 5409
Other dairy cattle	1971	2152	1516
Beef breeding herd	1369	3194	1000
Feeder cattle	18417	41804	5128
Hogs	17056	27298	8315
Sheep - farm flock	88	33	261
Sheep - feeders			
Chickens	562	5	1217
Turkeys	798	- -	233
All livestock	\$45237	\$76800	\$23079
Value of feed fed to livestock	24298	39513	12842
Return over feed from livestock	\$20939	\$37287	\$10237
Net value added by crops	39357	69612	22508
Income from labor off the farm	653	1355	633
Miscellaneous farm income	1253	1741	812
Total returns and net increases	\$62202	\$109995	\$34190
EXPENSES AND NET DECREASES			
Horses		-3	2
Truck	865	1357	812
Auto (farm share)	819	953	687
Electricity (farm share)	481	595	410
Hired power	1244	1608	1034
Tractors and crop machinery	7175	10876	5347
Livestock equipment	1109	1433	1007
Buildings, fencing and tiling	2715	4083	2022
Miscellaneous livestock expense	1345	2069	922
Labor	4368	7739	2123
Real estate taxes	2613	4067	1890
General farm expense and telephone	905	1205	856
Interest on farm capital at 6.0 percent**	12539	21781	7971
Total expenses and net decreases	\$36178	\$57763	\$25083
Labor earnings	\$26024	\$52232	\$ 9107

<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.

<sup>\*\*</sup> Interest is calculated on the "book" value of capital managed. If current market prices were applied to real estate, about \$6000 would be added to the average interest on capital managed.

Table 4. Net Worth Statement for Those Farmers Who Kept a Complete Record of All Assets and Liabilities (Operator's Share), 1972

T+om			29 (	Owners
Item	er i jeri i		Jan. 1	Dec. 3
Total acres in farm			311	
Owned			311	
Rented			-	
Total farm capital - operator's			\$125834	\$14562
Stocks and bonds			2767	311
Life insurance cash value		4	3550	328
Notes and accounts receivable			2144	192
Shares in cooperative organizations			2482	270
Outside real estate			4382	458
Cash on hand and in bank			3908	586
Household furnishings and clothing			4713	482
Personal share of auto and truck			905	107
Farm dwelling			7225	718
otal non-farm assets - operator's			\$ 32076	\$ 3456
Cotal assets - operator's			\$157910	\$18018
Morgages on farm operated			31713	3378
		-	694	77
Mortgages on other real estate				
Chattel mortgages			21148	2519
Notes payable			7002	669
Accounts payable		+ +	1234	187
otal liabilities - operator's			\$ 61791	\$ 6831
Net worth			\$ 96119	\$11187
hange in net worth				\$ 1575
	68 Par	t-owners	12 Re	enters
tem	Jan. 1	Dec. 31	Jan. 1	Dec. 3
otal acres in farm	514		399	
Owned	251		3,,	
lented	263	And the second of the second	399	
<i>lenced</i>	203		399	
otal farm capital - operator's	\$143075	\$170862	\$ 60481	\$ 7282
Stocks and bonds	3989	4649	1424	162
Life insurance cash value	3696	3920	4564	510
Notes and accounts receivable	1117	1712	4447	445
Shares in cooperative organizations	1591	1787	1022	128
Outside real estate	1837	2443	975	1034
Cash on hand and in bank	3725	4677	1359	246
Household furnishings and clothing	4266	4450	3772	414
Personal share of auto	982	1074	596	120
Farm dwelling	6324	6498	130	11
otal non-farm assets - operator's	\$ 27527	\$ 31210	\$ 18289	\$ 3074
otal assets - operator's	\$170602	\$202072	\$ 78770	\$10356
Mortgages on farm operated	37471	38141	1316	127
Mortgages on other real estate	414	249	442	887
	21/.26	2022/	12060	125

31426

7865

1384

78560

\$ 92042

39224

8323

1670

\$ 87607

\$114465

\$ 22423

13860

12501

32645

\$ 46125

4526

13543

14313

4229

\$ 42237

\$ 61328

\$ 15203

Chattel mortgages

Accounts payable

Change in net worth

Total liabilities - operator's

Notes payable

Net Worth

Table 5. Summary of Farm Earnings by Tenure (Operator's Share), 1972

Item	30	68 Part-	12
	Owners	owners	Renters
FARM RECEIPTS		· · · · · · · · · · · · · · · · · · ·	
Dairy cattle sold	\$ 1417	\$ 2526	\$ 2523
Dairy products sold	3446	4908	10772
Beef cattle sold (incl. feeders)	33659	37418	8099
Hogs sold	12918	16391	12524
Sheep and wool sold (incl. feeders)	115	62	269
Horses sold		2	
Poultry sold (incl. turkeys)	1540	96	5054
Eggs sold	11	1301	
Corn sold	5873	8325	7256
Soybeans sold	4544	8779	5342
Small grain sold	164	485	195
Other crops sold	3641	5647	3189
Machinery and equipment sold and gas tax refunds	774	553	411
Income from work off the farm	657	1440	862
Miscellaneous farm income	1082	1415	783
(1) Total farm sales	\$69841	\$89348	\$57279
(2) Increase in farm capital	26039	<b>2</b> 9418	9816
(3) Family living from the farm	291	342	405
(4) Total farm receipts $(1)+(2)+(3)$	\$96171	\$119108	\$67500
FARM EXPENSES			
Dairy cattle bought	\$ 222	\$ 1068	\$ 646
Beef cattle bought (incl. feeders)	23379	28226	4953
Hogs bought	2036	1582	417
Sheep bought (incl. feeders)	, · · · · · · · · · · · · · · ·	1	65
Horses bought	• .	9	· · · · -
Poultry bought (incl. turkeys)	173	132	1008
Miscellaneous livestock expenses	1278	1244	1609
Feed bought	9157	10398	9246
Fertilizers bought	2634	3995	2876
Other crop expenses	3240	5099	3899
Custom work hired	1803	1839	1839
Gas, oil and grease bought (farm share)	1354	1867	1431
Repair and upkeep of power and crop machinery	2094	2896	2524
Repair and upkeep of real estate	492	687	385
Repair and upkeep of livestock equipment	285	412	628
Wages of hired labor	1375	2896	1508
Electricity expense (farm share)	406	510	441
Real estate taxes	1643	1513	3
Cash rent	20	3330	4809
Telephone and general farm expense	797	957	769
Interest paid	3882	5435	2021
Total cash operating expense	\$56270	\$74096	\$41077
Trucks and autos bought (farm share)	509	864	656
Crop and power machinery bought	4732	6104	3303
Livestock equipment bought	908	933	983
Farm purchases and real estate improvements	7786	7952	1623
(5) Total farm purchases	\$70205	\$89949	\$47642
(6) Decrease in farm capital		<b>-</b>	
(7) Interest on operator's farm capital (6%)	4708	4183	1555
(8) Unpaid family labor	353	397	225
(9) Board furnished hired labor	45	122	117
(10) Total farm expense $(5)+(6)+(7)+(8)+(9)$	\$75311	\$94651	\$49539
(11) Labor earnings (4)-(10)	\$20860	\$24457	\$17961
(12) Ret. to cap. & family labor $(7)+(8)+(11)$	\$25921	\$29037	\$19741

Table 6. Household and Personal Expenses for Those Farms Which Kept Complete Accounts of These Expenses, 1972

	<del></del>		10.1
		13 high	13 low
Item	Average	in return	in return
*	of 67	to cap. and	to cap. and
	farms	fam. labor	fam. labor
Number of persons - family	4.8	4.9	4.9
Number of adult equivalents - family	4.2	4.0	4.2
- other*	.2	.3	.1
EXPENSES			
and the Late of th			
Food and meals bought	\$ 1701	\$ 1879	\$ 1493
Operating expense and supplies	581	808	508
Furnishings and equipment	748	982	614
Clothing and clothing materials	728	913	604
Personal care and spending	266	428	206
Education	351	421	176
Recreation	262	435	163
Gifts and special events	332	371	231
Medical and hospital insurance	8 <b>87</b>	890	940
Church and welfare	673	811	502
Personal share of auto expense	430	354	359
Upkeep on dwelling	149	58	179
Pers. share of tel. & elec. expense	197		172
rers. share of cer. a erec. expense		230	
Total cash living expense	\$ 7305	\$ 8580	\$ 6147
Personal share of new autos	424	300	540
New dwelling	112	578	_
Taxes**	784	2242	97
Life insurance	758	998	593
Other savings and investments	403	668	116
Total household & personal cash exp.	\$ 9786	\$13366	\$ 7493
Family living from the farm	387	420	351
			<u></u>
Total cash expense and perquisites	\$10173	\$13786	\$ 7844
RECEIPTS			
Return to capital and family labor	\$26639	\$51753	\$ 9172
Income from outside investments	348	443	144
Other personal income	1390	1457	1522
The percentage and the second	1390	147/	1322

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

<sup>\*\*</sup> All farmers did not report amount of state and federal income taxes.

Table 7. Family Living from the Farm, 1972

Item	Average of 156 farms	Average of 156 farms
Number of adult equivalents - family - other*	4.0	
Whole milk Cream Cattle Hogs Sheep Poultry Eggs	345 3 806 228 3 20 10	\$ 40 1 252 53 1 5
		\$354

<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	21		XXXXXXXXXX	\$17567
2	41		XXXXXXXXXX	17966
3	30		XXXXXXXXXXXXX	22780
4	28		XXXXXXXXXXXXXXXXXX	29251
5	18		XXXXXXXXXXXXXXXXXXX	32682
6 or 7	18		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	47970

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, 1972

Labor earnings Crop yields* Percent tillable land in high return crops** Return for \$100 feed to productive livestock*** Productive livestock units per 100 acres**** Size of businesswork units Work units per worker All power, machinery, equipment and building expense per work unit  Items related to some of the above measures:  Index of return for \$100 feed from: Dairy cattle (see pages 16 and 17) Beef cattlebreeding herd (see page 19) Beef cattlefeeders (see page 20) Hogs (see page 18)  Sheepfarm flock (see page 21) Sheepfeeders Turkeys Chickens (see page 22)  Number of animal units  Number of animal units  Number of family workers Number of family workers Number of hired workers Total number of workers  Power and crop machinery expense per work unit Livestock equipment expense per work unit Livestock equipment expense per work unit Sullding and fencing expense per crop acre Since Page 21 (2.5)  Number of crop acres in farm Tractor and crop machinery expense per crop acre Since Page 21 (2.5)  Number of crop acres in farm Tractor and crop machinery expense per crop acre	ge 31 most profit-able farms	
Crop yields* Percent tillable land in high return crops** Return for \$100 feed to productive livestock*** Productive livestock units per 100 acres**** Size of businesswork units Work units per worker All power, machinery, equipment and building expense per work unit  Items related to some of the above measures:  Index of return for \$100 feed from: Dairy cattle (see pages 16 and 17) Beef cattlebreeding herd (see page 19) Beef cattlefeeders (see page 20) Hogs (see page 18)  Sheepfarm flock (see page 21) Sheepfeeders Turkeys Chickens (see page 22)  Number of animal units  Number of family workers Number of family workers Number of hired workers Total number of workers  Power and crop machinery expense per work unit Livestock equipment expense per work unit Sullding and fencing expense per work unit Sullding and fencing expense per work unit Number of crop acres in farm  100 348 37.7 36.7 36.65 37.7 36.65 37.7 37.7 37.7 37.7 37.7 37.7 37.7 37.	\$52232	\$ 9107
Percent tillable land in high return crops** Return for \$100 feed to productive livestock*** Productive livestock units per 100 acres**** Size of businesswork units Work units per worker All power, machinery, equipment and building expense per work unit  Items related to some of the above measures:  Index of return for \$100 feed from: Dairy cattle (see pages 16 and 17) Beef cattlebreeding herd (see page 19) Beef cattlefeeders (see page 20) Hogs (see page 18)  Sheepfarm flock (see page 21) Sheepfeeders Turkeys Chickens (see page 22)  Number of animal units  Work units on crops Work units on productive livestock Other work units  Number of family workers Total number of workers  Total number of workers  Power and crop machinery expense per work unit Livestock equipment expense per work unit Building and fencing expense per work unit  Number of crop acres in farm  70.7 100 100 107 107 108 210 109 100 100 100 100 100 100 100 100 1	The state of the s	95
Return for \$100 feed to productive livestock*** Productive livestock units per 100 acres****  Size of businesswork units Work units per worker  All power, machinery, equipment and building expense per work unit  Items related to some of the above measures:  Index of return for \$100 feed from: Dairy cattle (see pages 16 and 17) Beef cattlebreeding herd (see page 19) Beef cattlefeeders (see page 20) Hogs (see page 18)  Sheepfarm flock (see page 21) Sheepfeeders Turkeys Chickens (see page 22)  Number of animal units  Number of family workers Number of family workers Number of family workers Number of hired workers Total number of workers  Power and crop machinery expense per work unit Livestock equipment expense per work unit Suilding and fencing expense per work unit Number of crop acres in farm  100 348		69.0
Productive livestock units per 100 acres****  Size of businesswork units  Work units per worker  All power, machinery, equipment and building expense per work unit  Items related to some of the above measures:  Index of return for \$100 feed from: Dairy cattle (see pages 16 and 17) Beef cattlebreeding herd (see page 19) Beef cattlefeeders (see page 20) Hogs (see page 18)  Sheepfarm flock (see page 21) Sheepfeeders Turkeys Chickens (see page 22)  Number of animal units  Number of family workers Number of family workers Total number of workers  Power and crop machinery expense per work unit Livestock equipment expense per work unit Sulding and fencing expense per work unit Number of crop acres in farm  348		93
Size of businesswork units  Work units per worker  All power, machinery, equipment and building expense per work unit  Signature of return for \$100 feed from: Dairy cattle (see pages 16 and 17) Beef cattlebreeding herd (see page 19) Beef cattlefeeders (see page 20) Hogs (see page 18)  Sheepfarm flock (see page 21) Sheepfeeders Turkeys Chickens (see page 22)  Number of animal units  Work units on crops Work units on productive livestock Other work units  Number of family workers Number of hired workers Total number of workers  Power and crop machinery expense per work unit Livestock equipment expense per work unit Sullding and fencing expense per work unit Number of crop acres in farm  348		28.9
Work units per worker All power, machinery, equipment and building expense per work unit  Stems related to some of the above measures:  Index of return for \$100 feed from: Dairy cattle (see pages 16 and 17) Beef cattlebreeding herd (see page 19) Beef cattlefeeders (see page 20) Hogs (see page 18)  Sheepfarm flock (see page 21) Sheepfeeders Turkeys Chickens (see page 22)  Number of animal units  Work units on crops Work units on productive livestock Other work units  Number of family workers Number of hired workers Total number of workers  Power and crop machinery expense per work unit Livestock equipment expense per work unit Sullding and fencing expense per work unit Number of crop acres in farm  348		319
All power, machinery, equipment and building expense per work unit \$34.65  Items related to some of the above measures:  Index of return for \$100 feed from: Dairy cattle (see pages 16 and 17) Beef cattlebreeding herd (see page 19) Beef cattlefeeders (see page 20) Hogs (see page 18)  Sheepfarm flock (see page 21) Sheepfeeders Turkeys Chickens (see page 22)  Number of animal units  154.0  Work units on crops Work units on productive livestock Other work units  Number of family workers Number of hired workers Total number of workers  Power and crop machinery expense per work unit Livestock equipment expense per work unit Sullding and fencing expense per work unit Number of crop acres in farm  348		228
Items related to some of the above measures:  Index of return for \$100 feed from: Dairy cattle (see pages 16 and 17) Beef cattlebreeding herd (see page 19) Beef cattlefeeders (see page 20) Hogs (see page 18)  Sheepfarm flock (see page 21) Sheepfeeders Turkeys Chickens (see page 22)  Number of animal units  Work units on crops Work units on productive livestock Other work units  Number of family workers Total number of workers  Power and crop machinery expense per work unit Livestock equipment expense per work unit Sudding and fencing expense per work unit Number of crop acres in farm  348		
Index of return for \$100 feed from:  Dairy cattle (see pages 16 and 17)  Beef cattlebreeding herd (see page 19)  Beef cattlefeeders (see page 20)  Hogs (see page 18)  Sheepfarm flock (see page 21)  Sheepfeeders  Turkeys  Chickens (see page 22)  Number of animal units  154.0  Work units on crops  Work units on productive livestock  Other work units  Number of family workers  Number of hired workers  Total number of workers  Power and crop machinery expense per work unit  Livestock equipment expense per work unit  Livestock equipment expense per work unit  Sumber of crop acres in farm  348	\$31.35	\$40.55
Dairy cattle (see pages 16 and 17)  Beef cattlebreeding herd (see page 19)  Beef cattlefeeders (see page 20)  Hogs (see page 18)  Sheepfarm flock (see page 21)  Sheepfeeders  Turkeys  Chickens (see page 22)  Number of animal units  154.0  Work units on crops  Work units on productive livestock  Other work units  Number of family workers  Total number of workers  Power and crop machinery expense per work unit  Livestock equipment expense per work unit  Livestock equipment expense per work unit  Building and fencing expense per work unit  Number of crop acres in farm  348		
Dairy cattle (see pages 16 and 17)  Beef cattlebreeding herd (see page 19)  Beef cattlefeeders (see page 20)  Hogs (see page 18)  Sheepfarm flock (see page 21)  Sheepfeeders  Turkeys  Chickens (see page 22)  Number of animal units  154.0  Work units on crops  Work units on productive livestock  Other work units  Number of family workers  Number of hired workers  Total number of workers  Power and crop machinery expense per work unit  Livestock equipment expense per work unit  Building and fencing expense per work unit  Number of crop acres in farm  348		And the second second
Beef cattlebreeding herd (see page 19) Beef cattlefeeders (see page 20) Hogs (see page 18)  Sheepfarm flock (see page 21) Sheepfeeders Turkeys Chickens (see page 22)  Number of animal units  Work units on crops Work units on productive livestock Other work units  Number of family workers Total number of workers Total number of workers Power and crop machinery expense per work unit Livestock equipment expense per work unit Livestock equipment expense per work unit Sumber of crop acres in farm  100 100 100 100 100 100 100 100 100 1	95	88
Beef cattlefeeders (see page 20) Hogs (see page 18)  Sheepfarm flock (see page 21) Sheepfeeders Turkeys Chickens (see page 22)  Number of animal units  Work units on crops Work units on productive livestock Other work units  Number of family workers Number of hired workers Total number of workers  Power and crop machinery expense per work unit Livestock equipment expense per work unit Building and fencing expense per work unit  Number of crop acres in farm  100 100 100 100 100 100 100 100 100 1		119
Hogs (see page 18)  Sheepfarm flock (see page 21) Sheepfeeders Turkeys Chickens (see page 22)  Number of animal units  Work units on crops Work units on productive livestock Other work units  Number of family workers Total number of workers  Power and crop machinery expense per work unit Livestock equipment expense per work unit Building and fencing expense per work unit  Number of crop acres in farm  100 100 100 100 100 100 100 100 100 1		91
Sheepfarm flock (see page 21) Sheepfeeders Turkeys Chickens (see page 22)  Number of animal units  154.0  Work units on crops Work units on productive livestock Other work units  Number of family workers Number of hired workers Total number of workers  Power and crop machinery expense per work unit Livestock equipment expense per work unit Livestock equipment expense per work unit Sumber of crop acres in farm  348		106
Sheepfeeders Turkeys Chickens (see page 22)  Number of animal units  Work units on crops Work units on productive livestock Other work units  Number of family workers Number of hired workers Total number of workers  Power and crop machinery expense per work unit Livestock equipment expense per work unit Building and fencing expense per work unit  Number of crop acres in farm  348	, 100	100
Turkeys Chickens (see page 22)  Number of animal units  Work units on crops Work units on productive livestock Other work units  Number of family workers Number of hired workers Total number of workers  Power and crop machinery expense per work unit Livestock equipment expense per work unit Building and fencing expense per work unit  Number of crop acres in farm  100 100 100 100 100 100 100 100 100 1	) 1	105
Chickens (see page 22)  Number of animal units  Work units on crops Work units on productive livestock Other work units  Number of family workers Number of hired workers Total number of workers  Power and crop machinery expense per work unit Livestock equipment expense per work unit Building and fencing expense per work unit  Number of crop acres in farm  100  154.0  198  236  236  257  1.7  1.7  1.7  1.7  1.7  1.7  1.7  1	, _	_
Work units on crops Work units on productive livestock Other work units  Number of family workers Number of hired workers Total number of workers  Power and crop machinery expense per work unit Livestock equipment expense per work unit Building and fencing expense per work unit  Number of crop acres in farm  198 236 257 257 258 258 258 258 258 258 258 258 258 258		
Work units on productive livestock Other work units  Number of family workers Number of hired workers Total number of workers  Power and crop machinery expense per work unit Livestock equipment expense per work unit Building and fencing expense per work unit  Number of crop acres in farm  236  1.2  257  25.73  25.73  2.51  348	272.6	77.4
Work units on productive livestock Other work units  Number of family workers Number of hired workers Total number of workers  Power and crop machinery expense per work unit Livestock equipment expense per work unit Building and fencing expense per work unit  Number of crop acres in farm  236  1.2  257  25.73  25.73  2.51  348	334	130
Other work units  Number of family workers  Number of hired workers  Total number of workers  Power and crop machinery expense per work unit  Livestock equipment expense per work unit  Building and fencing expense per work unit  Number of crop acres in farm  26  1.2  25  1.7  348		164
Number of hired workers  Total number of workers  Power and crop machinery expense per work unit Livestock equipment expense per work unit 2.51 Building and fencing expense per work unit 6.41  Number of crop acres in farm		25
Number of hired workers  Total number of workers  Power and crop machinery expense per work unit  Livestock equipment expense per work unit  Building and fencing expense per work unit  Number of crop acres in farm  348	2 1.3	1.1
Total number of workers  Power and crop machinery expense per work unit Livestock equipment expense per work unit 2.51 Building and fencing expense per work unit 6.41  Number of crop acres in farm 348		
Power and crop machinery expense per work unit Livestock equipment expense per work unit Building and fencing expense per work unit  Number of crop acres in farm  \$25.73 6.41		<u>.3</u>
Livestock equipment expense per work unit  Building and fencing expense per work unit  6.41  Number of crop acres in farm	2.2	1.4
Building and fencing expense per work unit  Number of crop acres in farm  348	\$ \$22.84	\$30.43
Number of crop acres in farm 348	2.27	3.10
· · · · · · · · · · · · · · · · · · ·	6.24	7.02
· · · · · · · · · · · · · · · · · · ·	570	233
		\$22.35
Rate earned on capital managed (\$8000 deducted		
for operator's labor) 14.6	18.2	.1

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

<sup>\*\*</sup> Crops are marked in Table 10 as A, B, C, and D. All 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 146 farms included in this summary are located between the dotted lines across the center of this page.

		**************************************	Retur			Work	Pow.,mac
Labor	1	High	from	units		units	
earn-	Crop	return			Work	per	exp. per
ings	yields	crops	livesto	ock 100 A.	units	worke	r work uni
				22.0	060	420	011 00
\$54000	132	86.0	140	80.0	860	430	\$11.00
50500	128	84.0	135	75.0	810	410	14.00
	Control of the Contro	***************************************				,	
47000	124	32.0	130	70.0	760	390	17.00
(2500	100	00 0	125	65.0	700	370	20.00
43500	120	80.0	120	65.0	/04	3/4	20.00
40000	116	78.0	120	60.0	660	350	23.00
36500	112	76.0	115	55.0	610	330	26.00
33000	108	74.0	110	50.0	560	310	29.00
29500	104	72.0	105	45.0	510	290	32.00
23300	104						
06000	100	70.0	100	40.0	460	270	35.00
26000	100	70.0	100	40.4	400	2/0	33.00
22500	96	68.0	95	35.0	410	250	38.00
19000	92	66.0	90	30.0	360	230	41.00
					1 1		
15500	88	64.0	85	25.0	310	210	44.00
10000		(0,0	90		260	190	47.00
12000	84	62.0	80	20.0	260	190	47.00
0500				150	210	170	50.00
8500	80	60.0	75	15.0	210	1/0	30.00
			grafie i na				
5000	76	58.0	70	10.0	160	150	53.00
Because of the second							
1500	72	56.0	65 —	5.0	110	130	56.00
-2000	68	54.0	60	0	60	110	59.00
2000		J#• U	~~   <del></del>	УП	~~ <u>~</u>		33.00

Table 10. Distribution of Acres in Farm, 1972

Item	Crop ratings*	Number growing this crop	Average of 156 farms	Ave. per farm raising each crop
Canning peas	В	3	.5	26.7
Wheat	C	2	. 2	13.5
Oats for silage	<b>C</b>	16	1.6	15.4
Oats for grain	D ·	79	12.6	25.0
F1ax	С	3	. 7	34.7
Other small grain	D	2	2	16.4
Total small grain and peas			15.8	28.0
Corn grain	<b>A</b>	156	197.2	197.2
Soybeans for grain	В	132	91.3	107.9
Sweet corn	В	3	.5	28.3
Corn silage	В	100	17.6	27.5
Other cultivated crops	* *	5	2.6	284.1
Total cultivated crops		156	309.2	309.2
Alfalfa hay	В	123	20.6	26.2
Other legume hay	C	<del>-</del> ' - '	-	
Other tame hay	D		<b>-</b>	-
Annual hay	D	7	5	11.3
Total tillable land in hay		124	21.1	26.6
Alfalfa pasture	В	26	2.8	16.6
Other tillable pasture	D	20	7	5.5
Total tillable land in pastu	re	42	3.5	12.9
Feed grain program (diverted a	cres) B	148	66.7	70.3
Tillable land not cropped	<b>D</b>	13	1.0	11.5
Total tillable land		156	417.3	417.3
Wild hay		35	2.1	
Non-tillable pasture		74	22.2	
Timber not pastured		15	2.6	
Roads and waste			18.2	
Farmstead			12.6	
Total acres in farm			475.0	
Percent land tillable	•		87.8	
Percent tillable land in high	return crops		70.7	

<sup>\*</sup> A, B, C and D refer to ranking used in calculating percent of tillable land in high return crops. Ranking of crops is based on average return received from various crops during the past few years.

<sup>\*\*</sup> Includes sugar beets and seed corn, which are ranked as A crops, and milo, which is ranked as a D crop.

Table 11. Crop Yields per Acre, 1972

Item	Average of farms growing each crop
Canning peas, dollars Wheat, bu. Oats for silage, tons	\$122.95 27.5 8.5
Oats for grain, bu. Flax, bu. Corn grain, bu.	75.1 17.5 107.4
Soybeans, bu. Sweet corn, tons Corn silage, tons	37.2 5.6 16.6
Alfalfa hay, tons Other legume hay, tons Annual hay, tons	4.2 - 4.1
Feed grain program, dollars Wild hay, tons	\$66.97 1.4

Table 12. Average Price of Feeds, 1972

Item	Value	Item	Value
Ear corn, per bu.	\$1.08	Alfalfa hay, per ton	\$21.00
Oats, per bu.	.65	Timothy hay, per ton	11.60
Barley, per bu.	.92	Wild hay, per ton	10.00
Soybean meal, per cwt.	6.35	Corn silage, per ton	7.25
		Pasture, per month per cow	4.00

Table 13. Returns Above Listed Costs per Acre of Crops, 1972

Item	Corn grain	Corn silage	Soy- beans
Number of farms reporting	151	94	126
Yield per acre	107.4	16.6	37.2
Price per unit	\$1.20	\$8.25	\$3.80
Total return	\$128.88	\$136.95	\$141.36
Fertilizer	\$ 16.19	\$ 15.44	\$ .95
Seeds, herbicides, etc.	<u>15.94</u>	14.53	8.47
Total listed costs	\$ 32.13	\$ 29.97	\$ 9.42
Return above listed costs	\$ 96.75	\$106.98	\$131.94
Item	Wheat	Alfalfa hay	Oats
Number of farms reporting	2	104	63
Yield per acre	27.2	4.2	75.1
Price per unit	\$2.16	\$24.00	\$ .80
Total return	\$58.75	\$100.80	\$60.08
Fertilizer	\$ 2.31	\$ 3.78	\$ 4.22
Seeds, herbicides, etc.	7.82	9.86	3.93
Total listed costs	\$10.13	\$ 13.64	$\frac{3.93}{$8.15}$
Return above listed costs	\$48.62	\$ 87.16	\$51.93

### 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
			* <u>*</u>
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	.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 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, 1972

Item	Average of 33 farms	17 farms highest in butterfat per cow	16 farms lowest in butterfat per cow
Pounds of milk per cow	11286	12584	9907
Percent of butterfat in milk	3.7	3.8	3.5
Pounds of butterfat per cow	411	469	349
Price received per pound of butterfat sold	\$1.45	\$1.43	\$1.46
Price received per cwt. of milk sold	5.25	5.33	5.15
Value of produce per cow:		•	
Dairy product sales	\$577.88	\$652.02	\$499.11
Dairy produce used in home	5.17	5.28	5.05
Milk fed to livestock	7.91	7.97	7.84
Net increase in value of cows	-2.30	-3.28	-1.26
TOTAL VALUE PRODUCED	\$588.66	\$661.99	\$510.74
Feed cost per cow:			
Concentrates	\$152.25	\$169.61	\$133.80
Roughages	98.78	98.05	99.56
Pasture	6.25	4.84	<u>7.75</u>
TOTAL FEED COST	\$257.28	\$272.50	\$241.11
RETURNS ABOVE FEED COST PER COW	\$331.38	\$389.49	\$269.63
RETURNS FOR \$100 OF FEED	\$229	\$243	\$212
Feeds per cow, 1bs.:			
Corn	4457	4996	3885
Small grain	712	791	629
Commercial feeds	712	739	682
Total concentrates	5881	6526	5196
Total hay	5776	5957	5585
Silage	10583	9872	11338
Feed cost per pound of butterfat	\$ .64	\$ .58	\$ .69
Feed cost per cwt. of milk produced	2.31	2.18	2.45
Number of cows*	39.6	37.9	41.4

<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, 1972

Item	Average of 33 farms	17 farms highest in butterfat per cow	16 farms lowest in butterfat per cow
NET INCREASE IN VALUE OF OTHER DAIRY CA	TTLE \$163.10	\$169.56	\$156.23
TOTAL FEED COST PER HEAD	84.56	88.85	80.01
RETURNS ABOVE FEED COST PER HEAD	78.54	80.71	76.22
RETURNS FOR \$100 OF FEED	\$193	\$191	\$195
Feed per head, 1bs.: Concentrates Hay Silage Whole milk	1499 1968 4374 122	1840 1734 4062 106	1137 2216 4705 138
Number of head of other dairy	49.8	51.4	48.0

Table 17. Feed Costs and Returns from All Dairy Cattle, 1972

Item	Average of 33 farms	17 farms highest in butterfat per cow	16 farms 1owest in butterfat per cow
Value of produce per cow:			
Dairy products Net increase in value of dairy cattle TOTAL VALUE PRODUCED	\$583.05 235.19 \$818.24	\$657.30 286.27 \$943.57	\$504.16 180.92 \$685.08
TOTAL FEED COST PER COW	\$367.84	\$406.10	\$327.19
RETURN ABOVE FEED COST PER COW	\$450.40	\$537.47	\$357.89
RETURNS FOR \$100 OF FEED	\$222	\$232	\$209
Feed per cow, 1bs.: Concentrates Hay Silage	8223 8213 16540	9686 8484 16355	6668 7924 16736
Miscellaneous expenses per cow	\$44.00	\$51.29	\$36.71

Table 18. Feed Costs and Returns from Hogs, 1972

		87 fa	arms with breed	ing stock	
Item	Average of 105 farms	Average of 87 farms	18 farms highest in returns above feed	18 farms lowest in returns above feed	17 farms with purchased feeder pigs
Pounds of hogs produced	88793	89562	80020	68039	84855
NET INCREASE IN VALUE PER CWT. PRODUCED	\$28.36	\$29.59	\$34.79	\$26.68	\$22.09
FEED COST PER CWT. PRODUCED	13.73	14.06	13.05	16.87	12.05
RETURN ABOVE FEED COST PER CWT. PRODUCED	\$14.63	\$15.53	\$21.74	\$ 9.81	\$10.04
RETURNS FOR \$100 OF FEED	\$207	\$210	\$267	\$158	\$183
Price received per cwt. sold	\$26.11	\$26.15	\$27.49	\$25.22	\$25.89
Weight per hog sold	237	238	213	258	229
Miscellaneous costs per cwt. produced	\$ .66	\$ .68	\$ .85	\$ .53	\$ .51
Feed per cwt. hogs produced, lbs.: Corn Small grain Commercial feeds* Total concentrates	316	321	309	354	285
	27	31	37	37	10
	<u>104</u>	106	<u>86</u>	<u>144</u>	<u>92</u>
	447	458	432	535	387
Total number of litters raised	47	55	51	44	4
Number of pigs born per litter	9.1	9.1	9.6	9.0	10.2
Number of pigs weaned per litter	7.3	7.4	8.1	6.5	5.8
Number of feeder pigs bought	87	16	13	8	455
Total weight of feeders purchased	3492	667	857	312	17952
Price paid per feeder pig	\$23.94	\$22.66	\$21.52	\$23.17	\$24.83

<sup>\*</sup> This includes purchased complete hog feeds which have not been divided between corn, small grain and protein feeds.

Table 19. Feed Costs and Returns from Beef Breeding Herd, 1972

Item		Average of 24 farms
TOTAL VALUE PRODUCED PER COW		\$188.37
Feed cost per cow: Concentrates Roughages Pasture TOTAL FEED COST		\$ 10.78 41.56 29.65 \$ 81.99
RETURNS ABOVE FEED COST PER	COW	\$106.38
RETURNS FOR \$100 OF FEED		\$230
Miscellaneous costs per cow		\$6.04
Feed per cow, 1bs.: Concentrates Hay Silage		334 2805 3563
Pounds of beef produced		20625
Number of cows Number of other beef cattle		45.5 27.9

Table 20. Feed Costs and Returns from Feeder Cattle, 1972

		Average
Item		of 96
		farms
Pounds of beef produced		88334
NET INCREASE IN VALUE OF	FEEDERS PER CWT OF BEEF PRODUCED	\$32.71
Food cost por out of ho	of produced.	
Feed cost per cwt. of be Concentrates	er produced:	\$15.76
Roughages		4.47
Pasture		.22
TOTAL FEED COSTS		\$20.45
RETURNS ABOVE FEED COST	PER CWT. BEEF PRODUCED	\$12.26
Miscellaneous costs per	cwt. of beef produced	\$ .73
Feeds per cwt. of beef p	roduced the	
Corn	roduced, ibs	631
Small grain		12
Commercial feeds		54
m-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1		697
Total concentrates		217
Total hay Silage		611
Silage		0.1
Price paid per cwt. for	beef bought	\$43.34
Price received per cwt.		34.50
Number of animal units		136.6

Table 21. Feed Costs and Returns from a Farm Flock of Sheep, 1972

Item	Average of 9 farms
	Larmo
Value of produce per ewe:	
	\$11.95
Net increase in value of sheep	22.92
TOTAL VALUE PRODUCED PER EWE	\$34.87
Feed costs per ewe:	401"
Concentrates	\$ 9.45
Roughages	10.63
Pasture	3.12
TOTAL FEED COSTS PER EWE	\$23.20
RETURNS ABOVE FEED COST PER EWE	\$11.67
TETOTERS TEDOVE TEED COOT TER UND	ÇII.O7
RETURNS FOR \$100 OF FEED	\$150
Miscellaneous expenses per ewe	\$1.71
Feeds per ewe, 1bs.:	
Concentrates	342
Hay we will be a first of the f	995
Silage	52
	400 /1
Price per cwt. of lambs sold	\$29.41
Price per pound of wool sold	.97
Pounds of wool per sheep sheared	9.8
Percent lamb crop*	102
Percent death loss*	4.3
Pounds of sheep produced	2991
Number of head of ewes	47

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

Table 22. Feed Costs and Returns from Chickens, 1972\*

Item	Average of 8 farms
Value of produce per hen: Eggs sold and used in home Net increase in value of chickens TOTAL VALUE PRODUCED	\$4.01 86 \$3.15
TOTAL FEED COST PER HEN	\$3.19
RETURNS ABOVE FEED COST PER HEN	\$04
RETURNS FOR \$100 OF FEED	\$ 99
Miscellaneous expenses per hen	\$ .08
Feed per hen, lbs.: Grain Commercial feed Total concentrates	64 <u>35</u> 99
Price received per dozen of eggs sold Eggs laid per hen Feed costs per dozen of eggs produced	\$ .20 236 \$ .16
Average number of hens on farm during the year Percent death loss of hens	33 <b>2</b> 9 5.4
Number of chicks bought Number of hens bought	194 1034

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

Table 23. Summary by Years

Item	Average	Average	Average	Average	Average			<del></del>
	1945-49	1950-54	1955-59	1960-64	1965-69	1970	1971	1972
Number of farms	140	138	135	135	145	140	146	156
Total farm capital managed	\$40590	\$57692	\$75246	\$99907	\$138418	\$174828	\$179752	\$208980
Monthly charge for:								
Unpaid family labor*	118	130	134	147	160	250	300	300
Second operator*	118	130	134	167	295	500	600	600
Board for hired labor*	33	36	38	40	45	60	60	60
FARM EXPENSES								
Dairy cattle bought	\$ 175	\$ 215	\$ 151	\$ 146	\$ 157	\$ 162	\$ 385	\$ 746
Beef cattle bought	2027	4097	7619	11153	13576	18358	23785	26764
Hogs bought	447	448	473	723	901	1025	959	1818
Sheep bought (incl. feeders)	365	599	517	69	51	16	5	8
Poultry bought (incl. turkeys)	165	190	225	244	186	263	272	231
Horses bought	11	6	5	3	2	5	1	8
Miscellaneous livestock expense	248	<b>3</b> 78	<b>52</b> 5	592	778	1030	1148	1345
Fertilizers bought	<b>~</b> ^	-	906	1223	2566	3458	4129	3985
Miscellaneous crop expenses	869**	* 1234 <b>*</b> *	908	1184	2602	3916	4371	4844
Feed bought	3191	4323	5503	<b>72</b> 25	858 <b>9</b>	9639	9100	10337
Custom work hired	356	438	694	874	1221	1648	1689	1835
Power & crop machinery (new)	1669	1864	1891	2057	4431	5767	5831	6741
Power & crop machinery (upkeep)	1365	1735	2200	2718	3587	4490	4528	4953
Livestock equipment (new)	99	164	327	415	590	573	778	991
Livestock equipment (upkeep)	111	135	194	207	254	404	368	421
Buildings and fencing (new)	676	881	832	1018	1670	2067	2298	3140
Buildings and fencing (upkeep)	319	312	320	338	434	684	619	624
Hired labor	794	883	993	1092	1436	2072	2073	2381
Taxes	403	622	910	1449	1898	2352	2715	2613
General farm expense	174	260	364	430	594	876	807	905
Total farm purchases	\$13464	\$18784	\$25557	\$33160	\$45523	\$58805	\$65861	\$74690
Decrease in farm capital	-			_	· <del>-</del>	-	-	_
Interest on farm capital***	2030	2885	3762	4991	7372	10490	10785	12539
Unpaid family labor	377	358	379	500	652	788	1133	1284
Board furnished hired labor	107	91	- 92	82	84	131	129	110
Total farm expense	\$15978	\$22118	\$29790	\$38733	\$53631	\$70214	\$77908	\$88623

<sup>\*</sup> These adjustments should be considered in comparing 1972 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 1970-1972.

Table 23. Summary by Years (continued)

I f om	Average	Average	Average	Average	Average		_	
Local	1945-49	1950-54	1955-59	1960-64	1965-69	1970	1971	1972
FARM RECEIPTS								
Dairy cattle sold	\$ 573	\$ 695	\$ 585	\$ 563	\$ 790	\$ 1035	\$ 1203	\$ 2075
Dairy products sold	988	1085	1450	1888	3244	4950	5191	4891
Beef cattle sold	4246	7918	13025	20180	23994	36585	35988	36866
Hogs sold	6775	7455	7158	8431	12206	12673	10786	16461
Sheep and wool sold	651	978	981	263	182	89	116	96
Poultry (incl. turkeys) sold	525	526	530	505	388	409	714	975
Eggs sold	1035	965	1013	1074	871	1146	737	761
Horses sold	23	- 8	5	4	1	1		1
Corn sold	1138	1855	3149	3401	5585	8561	9482	10049
Soybeans sold	-	_	• •	-	4217	7060	7284	9260
Small grain sold	2055	1236	807	882	575	596	506	395
Other crops sold*	879	1023	1759	3855	3681	3669	3249	5460
Machinery and equipment sold	364	367	266	373	431	499	410	587
Agricultural adjustment payment	65	64	44	43	7	-	-	
Income from work off the farm	313	349	398	396	742	1108	907	1194
Miscellaneous farm income	78	<u>137</u>	306	<u>386</u>	813	1048	848	1253
Total farm sales	\$19708	\$24661	\$31476	\$42244	\$57727	\$79429	\$77421	\$90324
Increase in farm capital	2395	1845	1157	1205	6390	737	9653	23969
Family living from the farm	666	<u>553</u>	278	288	<u>293</u>	351	291	354
Total farm receipts	\$22769	\$27059	\$32911	\$43737	\$64410	\$80517	\$87365	\$114647
Total farm expenses	15978	<u>22118</u>	<u> 29790</u>	<u>38733</u>	53631	70214	77908	88623
Labor earnings	\$ 6791	\$ 4941	\$ 3121	\$ 5004	\$10779	\$10303	\$ 9457	\$ 26024
MEASURES OF FARM ORGANIZATION AND MA	NAGEMENT	•						
Percent land in high return crops**	56.4	59.7	63.4	68.1	67.2	68.4	72.3	70.7
Livestock units per 100 acres***	20.3	30.3	39.4	43.0	.36.5	38.9	36.1	37.7
Work units***	501	470	469	533	498	445	444	460
Work units per worker***	285	283	279	318	303	264	261	270
Expenses per work unit****	\$6.23	\$9.49	\$12.81	\$13.42	\$20.31	\$29.60	\$31.20	\$34.65

<sup>\*</sup> Includes soybeans 1945-1965

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

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Table 24. Summary of Miscellaneous Items by Years

Item	Average	Average	Average	Average	Average			
	1945-49	1950-54	1955-59	1960-64	1965-69	1970	1971	1972
RETURN ABOVE FEED COST PER								
Dairy cow	\$114.96	\$111.51	\$125.34	\$140.97	\$226.79	6221 62	6227 60	6221 20
Animal unit in beef herd	46.46	42.51	30.08	30.77	\$220.19 %	\$321.62	\$324.89	\$331.38 *
100 lbs. feeder cattle produced	8.87	5.26	5.88	1.94	5 <b>.</b> 74	3.28	12.65	
Ewe	0.07	J.20	<b>-</b> 00	6.80				12.26
100 lbs. hogs produced	6.29	6.23	4.52	4.28	10.24	9.24	11.63	11.67
Hen				and the second second	8.71	4.15	5.44	15.82
nen	2.15	1.09	1.05	.91	.78	.64	30	04
FEED COST PER						*		
Dairy cow	\$121.21	\$142.90	\$147.40	\$181.72	\$232.80	\$256.19	\$252.35	\$257.28
Animal unit in beef herd	68.30	97.48	83.69	72.97	*	*	*	*
100 lbs. feeder cattle produced	21.66	22.68	17.70	18.32	20.28	21.44	22.98	20.45
Ewe			=	13.42	16.58	20.47	22.07	23.20
100 lbs. hogs produced	12.70	12.95	10.48	10.65	12.31	13.27	13.52	13.60
Hen	4.28	4.66	3.89	3.45	3.51	3.46	3.33	3.19
	,,,,,		3.03	3.43	3,31	3.40	3.33	J. 1.7
MISCELLANEOUS LIVESTOCK INFORMATIO	N							
Number of dairy cows	5.3	4.7	5.2	5.7	6.8	8.5	8.9	8.4
Head in beef breeding herd	9.4	11.1	10.6	4.9	7.1	8.8	11.0	12.3
Pounds of feeder cattle produced	6676	12137	27685	41929	46386	58147	58111	59416
Litters of pigs	19.5	21.7	24.6	28.0	28.8	32.2	32.1	33.4
Pounds of hogs produced	34292	37265	44369	52828	55947	57118	52956	54435
Number of hens	202	187	204	219	174	190	167	173
Pounds of butterfat per dairy cow	257	282	311	349	387	410	403	411
Pigs weaned per litter	6.3	6.7	7.2	7 <b>.</b> 0	7.4	7.2		
Percent lamb crop	109	107	111	103	111		7.1	7.3
Eggs per hen	171	180	200	208	208	113	99	102
1999 her Hen	1/1	100	200	208	208	206	220	236

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

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

Item	Average 1945-49		Average 1955-59	Average 1960-64	Average	1970	1971	1972
	1773 77	1730 31	1733 37	1700 04	1703.07	17,0	17/1	1712
PRICE RECEIVED PER								•
Pound of butterfat in milk	\$ .98	\$ .94	\$ .91	\$ .94	\$ 1.19	\$ 1.42	\$ 1.44	\$ 1.45
100 pounds of fat cattle	21.71	26.61	22.51	22.86	25.32	28.44	31.49	34.50
Pound of wool	.41	.60	.51	.58	•54	.66	.53	.97
Dozen of eggs	.37	. 35	.29	.27	.27	.29	.21	.20
100 pounds of hogs sold	19.54	10.43	15.96	15.45	20.90	21.98	17.90	25.71
PRICE OF FEED								
Corn, bu.	1.24	1.31	1.11	.99	1.10	1.15	1.17	1.08
Oats, bu.	.74	.74	.59	.61	.62	.60	.62	.65
Barley, bu.	1.31	1.15	.92	.91	.97	.85	.86	.92
Alfalfa hay, ton	18,60	18.30	18.20	19.40	20.80	20.00	20.00	21.00
Timothy hay, ton	10.86	10.60	10.58	11.22	12.00	11.60	11.60	11.60
Corn silage, ton	6.07	6.00	6.08	6.60	7.36	7.25	7.25	7.25
Soybean meal, cwt.	4.15	4.50	•	4.36		-	· •	
ACRES PER FARM						•		
Small grains	73.9	70.5	48.8	39.5	27.1	30.7	21.0	15.8
Cultivated crops	100.3	107.0	153.7	187.0	251.5	281.6	303.1	309.2
Fillable land in hay	19.1	28.1	34.9	31.0	27.5	23.7	21.5	21.1
Tillable land in pasture	15.2	14.8	13.2	6.8	4.5	4.4	3.5	3.5
Tillable land not cropped	2.4	1.4	2.2	25.9*	44.1*	49.7*	40.9*	67.7
Total tillable land	$\overline{210.9}$	221.8	252.8	290.2	354.7	390.1	390.0	417.3
Non-tillable land	43.1	43.4	40.5	44.6	48.5	52.2	<u>54.7</u>	57.7
Total acres per farm	254.0	265.2	293.3	334.8	403.2	442.3	444.7	475.0
YIELD PER ACRE								
Flax, bu.	13.7	11.5	13.0	13.6	16.4	16.7	13.2	17.5
Oats, bu.	46.3	41.4	51.7	54.8	61.1	59.2	70.4	75.1
Corn grain, bu.	47.8	53.7	57.1	71.3	84.3	97.4	90.6	107.4
Corn silage, tons	8.4	9.2	9.7	11.8	13.1	15.0	15.9	16.6
Soyb <b>e</b> ans, bu.	14.4	19.8	22.5	25.5	25.4	32.6	29.0	37.2
Alfalfa hay, tons	2.1	2.5	2.5	3.0	3.1	3.5	3.8	4.2

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