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1967
annual report

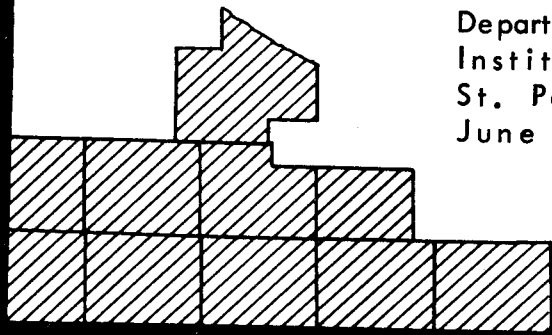
**Southwestern Minnesota
Farm Management Association**

COOPERATING AGENCIES:

University of Minnesota, Institute of Agriculture
United States Department of Agriculture, Agricultural Research Service
County Extension Services of the 10 Southwestern Counties
Southwestern Minnesota Farm Management Association

Economic Information Report R 68-2

Department of Agricultural Economics
Institute of Agriculture
St. Paul, Minnesota 55101
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1967 ANNUAL REPORT OF THE SOUTHWESTERN MINNESOTA FARM MANAGEMENT ASSOCIATION

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

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INTRODUCTION

The Department of Agricultural Economics and the Agricultural Extension Service of the University of Minnesota, the Agricultural Research Service of the United States Department of Agriculture, and the county extension services of several 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 Economics under the direction of T. R. Nodland. Extension work in connection with this service is handled by Paul Hasbargen. Michael Lynch was the field agent for this project. At the end of the year, Carl

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

Pherson, Herbert Walch and Walter Fishel of the Department of Agricultural Economics; Duane Wilson, District County Agent Supervisor; Paul Hasbargen, Charles Cuykendall, Richard Hawkins and Jerome Bamberik, Extension Specialists in Farm Management; Lawrence Christenson, Area Farm Management Agent, Waseca, Minnesota; David Johnson, County Agricultural Agent in Yellow Medicine County; and Ernest Johnson, County Agricultural Agent in Redwood County aided in closing the records.

The following tabulation shows by counties the number of records submitted, the officers of the Association, and the county agricultural extension agents who cooperated in 1967.

County	No. of records	Association officers	County Agricultural Extension Agent
Cottonwood	20	John Regier, Director	Paul Sandager
Faribault	22	Leon Chirpich, Director	Gene Williams
Jackson	18	Bernard Stevermer, Director Curtis Pietz, Vice-President Vernon Voss, Director	Ray Palmby
Martin	9	Willard Peters, Director	Floyd Bellin, Jr.
Murray	21	Malcolm McLean, Director Arthur Foster, Secretary-Treasurer	Reuben Boxrud
Nobles	32	Loren Richardson, Director Burton Larson, President Donald Gingerich, Director Henry J. Peterson, Director	Robert Koehler
Pipestone	11	Fred Schuld, Director	Kenneth Rose
Redwood	24	Harold Deal, Director Reinhardt Jenniges, Director	Ernest Johnson
Rock	1		Laverne B. Forest
Watsonwan	<u>11</u>	Eldon Torkelson, Director	John Ankeny
Total	169		

The data for 144 farms are shown in the tables on succeeding pages. Twenty-five 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 were, nevertheless, wide variations 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, 1967*

Items	Average of 144 farms	
	Jan. 1	Dec. 31
Size of farm (acres)	400	
Size of business (work units)**	449	
Dairy cows	\$ 1431	\$ 1425
Other dairy cattle	888	872
Beef cattle (incl. feeders)	13688	14215
Hogs	3867	3525
Sheep (incl. feeders)	160	168
Poultry (incl. turkeys)	284	220
Productive livestock total	<u>\$20318</u>	<u>\$20425</u>
Horses	11	11
Crop, seed and feed	16478	16288
Autos and trucks (farm share)	1883	1979
Tractors and crop machinery	11684	13077
Livestock equipment	2169	2226
Machinery and equipment total	<u>\$15736</u>	<u>\$17282</u>
Land	66512	66512
Buildings, fences, etc.	<u>17653</u>	<u>18178</u>
Total farm capital managed	\$136708	\$138696

Items	29 most profitable		29 least profitable	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31
Size of farm (acres)	511		346	
Size of business (work units)**	571		334	
Dairy cows	\$ 1847	\$ 1912	\$ 618	\$ 584
Other dairy cattle	962	989	467	386
Beef cattle (incl. feeders)	19907	23126	11375	8608
Hogs	4371	3491	2791	3025
Sheep (incl. feeders)	25	0	299	369
Poultry (incl. turkeys)	118	65	338	229
Productive livestock total	<u>\$27230</u>	<u>\$29583</u>	<u>\$15888</u>	<u>\$13201</u>
Horses	3	5	17	17
Crop, seed and feed	20545	22062	15337	13638
Autos and trucks (farm share)	1881	2118	1974	2122
Tractors and crop machinery	14178	15881	10009	11162
Livestock equipment	2447	2687	1178	1302
Machinery and equipment total	<u>\$18506</u>	<u>\$20686</u>	<u>\$13161</u>	<u>\$14586</u>
Land	93010	93010	57505	57505
Buildings, fences, etc.	<u>19591</u>	<u>20577</u>	<u>15498</u>	<u>15659</u>
Total farm capital managed	\$178885	\$185923	\$117406	\$114606

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

** See page 15 for an explanation of "work units."

Table 2. Summary of Farm Earnings (Cash Statement), 1967

Items	Average of 144 farms	29 most profitable farms	29 least profitable farms
FARM RECEIPTS			
Dairy cattle sold	\$ 774	\$ 953	\$ 558
Dairy products sold	3398	5317	857
Beef cattle (incl. feeders) sold	23989	40397	14820
Hogs sold	10724	13627	8114
Sheep and wool (incl. feeders) sold	158	23	298
Horses sold	-	-	-
Poultry (incl. turkeys) sold	366	1226	114
Eggs sold	863	324	905
Corn sold	6078	6683	8242
Soybeans sold	5566	8639	4015
Small grain sold	504	491	326
Other crops sold	2026	3122	1403
Machinery and equipment sold	434	555	447
Income from work off the farm	784	837	495
Miscellaneous farm income	844	1424	564
Total farm sales	\$56508	\$83618	\$41158
Increase in farm capital	1988	7038	-
Family living from the farm	289	323	277
Total farm receipts	\$58785	\$90979	\$41435
FARM EXPENSES			
Dairy cattle bought	\$ 99	\$ 109	\$ 202
Beef cattle bought (incl. feeders)	12940	23649	5987
Hogs bought	801	670	1533
Sheep bought (incl. feeders)	50	1	104
Horses bought	2	2	-
Poultry bought (incl. turkeys)	234	256	168
Miscellaneous livestock expense	738	1015	457
Feed bought	7867	11444	5191
Fertilizers bought	3058	3943	2819
Other crop expenses	2720	4058	2435
Custom work hired	1284	1533	1205
Gas, oil, and grease (farm share)	1474	1751	1321
Repair truck and auto (farm share)	443	535	429
Repair and upkeep of farm real estate	420	379	406
Repair & upkeep of tractors & crop machinery	1311	1697	1188
Repair & upkeep of livestock equipment	230	346	201
Wages of hired labor	1399	2174	782
Electricity expense (farm share)	333	363	302
Personal property and real estate taxes	2000	2577	1789
Telephone and general farm expense	581	673	519
Total cash operating expense	\$37984	\$57175	\$27038
Trucks and autos bought (farm share)	549	748	550
Crop and power machinery bought	3628	4487	3313
Livestock equipment bought	480	654	440
New real estate and improvements	1949	2737	1469
Total farm purchases	\$44590	\$65801	\$32810
Decrease in farm capital	-	-	2800
Interest on farm capital @ 5.5 percent	7574	10032	6380
Unpaid family labor	699	1094	400
Board furnished hired labor	69	93	47
Total farm expenses	\$52932	\$77020	\$42437
Labor earnings	5853	13959	-1002

Table 3. Summary of Farm Earnings (Enterprise Statement), 1967*

Items	Average of 144 farms	29 most profitable farms	29 least profitable farms
RETURNS AND NET INCREASES			
Dairy cows	\$3457	\$5417	\$ 884
Other dairy cattle	828	1243	397
Beef breeding herd	477	197	667
Feeder cattle	11118	19670	5428
Hogs	9626	12133	6853
Sheep - farm flock	115	-3	265
Sheep - feeders	-	-	-
Chickens	730	263	702
Turkeys	217	987	80
All productive livestock	<u>\$26568</u>	<u>\$39907</u>	<u>\$15276</u>
Value of feed fed to livestock	<u>18021</u>	<u>25342</u>	<u>12482</u>
Return over feed from livestock	<u>\$ 8547</u>	<u>\$14565</u>	<u>\$ 2794</u>
Crops, seed and feed	18335	26300	14314
Income from labor off the farm	398	385	222
Miscellaneous farm income	844	1424	564
Total returns and net increases	<u>\$28124</u>	<u>\$42674</u>	<u>\$17894</u>
EXPENSES AND NET DECREASES			
Horses	\$ 3	\$ -	\$ 4
Truck	438	528	395
Auto (farm share)	703	818	677
Electricity (farm share)	333	363	302
Hired power	887	1021	858
Tractors and crop machinery	3989	4975	3746
Livestock equipment	631	752	483
Building, fencing and tiling	1830	2088	1710
Miscellaneous productive livestock expense	737	1015	458
Labor	2565	3873	1575
Real estate taxes	1687	2166	1544
Personal property tax	313	411	245
General farm expense and telephone	581	673	519
Interest on farm capital @ 5.5 percent	<u>7574</u>	<u>10032</u>	<u>6380</u>
Total expenses and net decreases	<u>\$22271</u>	<u>\$28715</u>	<u>\$18896</u>
Labor earnings	\$ 5853	\$13959	\$-1002

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

Table 4. Net Worth Statement for Those Farmers Who Kept a Complete Record of All Assets and Liabilities (Operator's Share), 1967

Items	21 Owners	
	Jan. 1	Dec. 31
Total acres in farm	300	
Owned	300	
Rented	-	
Total farm capital - operator's	\$99056	\$101183
Stocks and bonds	1251	1642
Life insurance cash value	3535	3838
Notes and accounts receivable	2004	2046
Shares in cooperative organizations	2396	2529
Outside real estate	2657	3390
Cash on hand and in bank	4775	3688
Household furnishings and clothing	4184	4409
Personal share of auto and truck	737	845
Farm dwelling	7251	7166
Total non-farm assets - operator's	\$28790	\$29553
Total assets - operator's	\$127846	\$130736
Mortgages on farm operated	26482	25383
Mortgages on other real estate	786	-
Chattel mortgages	13059	16522
Notes payable	4246	3583
Accounts payable	211	241
Total liabilities - operator's	\$44784	\$45729
Farmer's net worth	\$83062	\$85007
Change in net worth		\$+1945

Items	47 part-owners		16 renters	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31
Total acres in farm	432		408	
Owned	226		-	
Rented	206		408	
Total farm capital - operator's	\$105068	\$114838	\$ 42009	\$ 41884
Stocks and bonds	2318	2516	484	560
Life insurance cash value	3723	3887	2225	2396
Notes and accounts receivable	2009	1941	3197	3628
Shares in cooperative organizations	1789	2182	500	550
Outside real estate	1974	4977	5312	5312
Cash on hand and in bank	2492	2937	2146	3011
Household furnishings and clothing	3226	3417	2916	3010
Personal share of auto	859	887	582	876
Farm dwelling	8171	8197	-	-
Total non-farm assets - operator's	\$ 26561	\$ 30941	\$ 17362	\$ 19343
Total assets - operator's	\$131629	\$145779	\$ 59371	\$ 61227
Mortgages on farm operated	23896	28845	-	-
Mortgages on other real estate	65	1961	875	856
Chattel mortgages	17522	20720	13343	13605
Notes payable	7284	8524	7299	6972
Accounts payable	708	803	2559	2561
Total liabilities - operator's	\$ 49475	\$ 60853	\$ 24076	\$ 23994
Farmer's net worth	\$ 82154	\$ 84926	\$ 35295	\$ 37233
Change in net worth		\$ +2772		\$ +1938

Table 5. Summary of Farm Earnings by Tenure (Operator's Share), 1967

Items	38 Owners	73 Part- owners	25 Renters
FARM RECEIPTS			
Dairy cattle sold	\$ 572	\$ 819	\$ 922
Dairy products sold	2815	3451	4089
Beef cattle sold (incl. feeders)	20029	24881	13826
Hogs sold	9192	10907	8078
Sheep and wool sold (incl. feeders)	207	79	246
Horses sold	-	-	-
Poultry sold (incl. turkeys)	1255	49	51
Eggs sold	1398	822	396
Corn sold	4376	5093	2550
Soybeans sold	4135	5272	3035
Small grain sold	481	396	305
Other crops sold	1694	1979	1359
Machinery and equipment sold	444	455	334
Income from work off the farm	694	830	502
Miscellaneous	831	953	410
(1) Total farm sales	<u>\$48123</u>	<u>\$55986</u>	<u>\$36103</u>
(2) Increase in farm capital	4466	10584	2076
(3) Family living from the farm	246	304	299
(4) Total farm receipts (1)+(2)+(3)	<u>\$52835</u>	<u>\$66874</u>	<u>\$38478</u>
FARM EXPENSES			
Dairy cattle bought	\$ 5	\$ 120	\$ 179
Beef cattle bought (incl. feeders)	10335	13778	7380
Hogs bought	435	979	972
Sheep bought (incl. feeders)	19	32	100
Horses bought	-	3	-
Poultry bought (incl. turkeys)	391	230	68
Miscellaneous livestock expense	645	718	693
Feed bought	8098	7768	5264
Fertilizers bought	2383	3104	1660
Other crop expenses	2039	2865	1921
Custom work hired	1252	1318	970
Gas, oil and grease bought (farm share)	1308	1512	1318
Repair and upkeep of power and crop machinery	1432	1870	1487
Repair and upkeep of real estate	446	448	165
Repair and upkeep of livestock equipment	154	250	160
Wages of hired labor	1234	1435	1144
Electricity expense (farm share)	326	330	262
Real estate and personal property taxes	1681	1293	238
Cash rent	1	1275	1662
General farm expense	589	617	395
Interest paid	2748	2634	1270
Total cash operating expense	<u>\$35521</u>	<u>\$42579</u>	<u>\$27308</u>
Trucks and autos bought (farm share)	455	519	625
Tractors and crop machinery bought	2370	4131	3281
Livestock equipment bought	295	636	354
Farm purchase and real estate improvements	6511	9561	96
(5) Total farm purchases	<u>\$45152</u>	<u>\$57426</u>	<u>\$31664</u>
(6) Decrease in farm capital	-	-	-
(7) Interest on operator's farm capital	3039	3156	1108
(8) Unpaid family labor	198	305	237
(9) Board furnished hired labor	51	54	92
(10) Total farm expense (5)+(6)+(7)+(8)+(9)	<u>\$48440</u>	<u>\$60941</u>	<u>\$33101</u>
(11) Labor earnings (4)-(10)	\$ 4395	\$ 5933	\$ 5377
(12) Ret. to capital & family labor (7)+(8)+(11)	\$ 7632	\$ 9394	\$ 6722

Table 6. Household and Personal Expenses for Those Farms Which Kept Complete Accounts of These Expenses, 1967

Items	Average of 76 farms	15 high in return to cap. and fam. labor	15 low in return to cap. and fam. labor
Number of persons - family	4.8	5.6	4.0
Number of adult equivalents - family	4.0	4.8	3.2
- other*	.1	.2	.1
EXPENSES			
Food and meals bought	\$1291	\$1308	\$1162
Operating and supplies	435	492	419
Furnishings and equipment	464	443	385
Clothing and clothing materials	550	598	498
Personal care and spending	174	138	127
Education	209	290	198
Recreation	211	192	148
Gifts and special events	174	175	164
Medical and hospital insurance	565	700	619
Church and welfare	388	501	392
Personal share of auto expense	290	314	256
Upkeep on dwelling	53	46	62
Pers. share of tel. & elec. expense	<u>139</u>	<u>155</u>	<u>138</u>
Total cash living expense	\$4943	\$5352	\$4568
Personal share of new autos	241	365	131
New dwelling	286	631	92
Taxes	875	1493	519
Life insurance	729	869	515
Other savings and investments	<u>405</u>	<u>1053</u>	<u>21</u>
Total household & pers. cash exp.	\$7479	\$9763	\$5846
Family living from the farm	318	358	319
Total cash expense & perquisites	\$7797	\$10121	\$6165
RECEIPTS			
Return to capital and family labor	\$8445	\$17135	\$1432
Income from outside investments	291	743	415
Other personal income	1176	918	1380

* Hired help or others boarded.

Table 7. Family Living from the Farm, 1967

Items	Average of 144 farms	Average of 144 farms
Number of adult equivalents - family other*	4.0 .1	
Whole milk	434 qts.	\$ 33
Cream	3 pts.	1
Cattle	847 lbs.	192
Hogs	254 lbs.	46
Sheep	3 lbs.	-
Poultry	50 lbs.	9
Eggs	34 doz.	8
		<u>\$289</u>

* 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.¹ The combined or cumulative influence of these seven management factors on earnings is shown in Table 8. The farmer's earnings are determined to a considerable extent by his accomplishments in these seven factors.

Table 8. Relation of 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	=====	XXXXXXXX	\$2118
2	27	=====	XXXXXXXXXXXXXXXX	3913
3	33	=====	XXXXXXXXXXXXXXXXXXXXXXXX	5743
4	26	=====	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	6705
5	23	=====	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	9077
6 or 7	13	=====	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	9073

The array in Table 8 indicates that it will be worthwhile for each co-operator to study carefully his ranking on pages 10 and 11, and learn his standing in respect to each of the above factors and the elements of strength and weakness in his farm business.

1. Nodland, T. R., and G. A. Pond, "Some Factors Affecting the Earnings of Farmers in Southwestern Minnesota." University of Minnesota Department of Agricultural Economics, Report No. 219, November 1954.

Table 9. Measures of Farm Organization and Management Efficiency, 1967

Measures used in chart on page 11	Average of 144 farms	29 most profitable farms	29 least profitable farms
Labor earnings	\$5853	\$13959	\$-1002
Crop yields*	100	108	97
Percent tillable land in high return crops**	70.0	69.0	72.6
Return for \$100 feed to productive livestock***	100	111	91
Productive livestock units per 100 acres****	35.6	40.8	27.3
Size of business - work units	449	571	334
Work units per worker	281	301	239
Pow., mach., equip., & bldg. expense per work unit	\$21.32	\$19.15	\$26.40
Items related to some of the above measures:			
Index of return for \$100 feed from:			
Dairy cattle (see pages 16 and 17)	100	118	73
Beef cattle - breeding herd (see page 19)	100	123	95
Beef cattle - feeders (see page 20)	100	106	92
Hogs (see page 18)	100	107	94
Sheep - farm flock (see page 21)	100	-	104
Turkeys	100	-	-
Chickens	100	94	85
Number of animal units	128.4	183.1	87.4
Work units on crops	183	231	162
Work units on productive livestock	214	284	139
Other work units	52	56	33
Number of family workers	1.2	1.3	1.2
Number of hired workers	.4	.6	.2
Total number of workers	1.6	1.9	1.4
Power and crop machinery expense per work unit	\$15.48	\$14.00	\$19.25
Livestock equipment expense per work unit	1.37	1.29	1.63
Building and fencing expense per work unit	4.47	3.86	5.52

* Given as a percentage of the average.

** Crops are marked in Table 10 as A, B, C, and D. All of the acres in 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.

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

**** 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 averages for the 144 farms included in this summary are located between the dotted lines across the center of this page.

Labor earnings	Crop yields	High return crops	Return from productive livestock	Pr. L.S. units per 100 A	Work units	Work units per worker	Pow., mach. eq. & bldg. exp. per work unit
\$15500	140	94.0	140	68.0	850	480	\$10.00
14300	135	91.0	135	64.0	800	455	11.50
13100	130	88.0	130	60.0	750	430	13.00
11900	125	85.0	125	56.0	700	405	14.50
10700	120	82.0	120	52.0	650	380	16.00
9500	115	79.0	115	48.0	600	355	17.50
8300	110	76.0	110	44.0	550	330	19.00
7100	105	73.0	105	40.0	500	305	20.50
5900	100	70.0	100	36.0	450	280	22.00
4700	95	67.0	95	32.0	400	255	23.50
3500	90	64.0	90	28.0	350	230	25.00
2300	85	61.0	85	24.0	300	205	26.50
1100	80	58.0	80	20.0	250	180	28.00
-100	75	55.0	75	16.0	200	155	29.50
-1300	70	52.0	70	12.0	150	130	31.00
-2500	65	49.0	65	8.0	100	105	32.50

Table 10. Distribution of Acres in Farm, 1967

Items	Crop ratings*	Number growing this crop	Average of 144 farms	Ave per farm raising each crop
Canning peas	B	3	.6	26.0
Wheat	C	5	.4	12.0
Oats for silage	C	18	1.9	15.0
Oats for grain	D	96	18.0	27.0
Flax	C	7	2.2	46.1
Other small grain	D	3	1.1	56.7
Total small grain and peas		106	24.2	33.0
Corn grain	A	144	165.1	165.1
Soybeans for grain	B	129	83.4	93.2
Sweet corn	B	6	1.3	30.7
Corn silage	B	88	17.8	29.0
Other cultivated crops	D	-	-	-
Total cultivated crops		144	267.6	267.6
Alfalfa hay	B	129	26.0	29.1
Other legume hay	C	2	.3	18.5
Other tame hay	D	2	.4	26.5
Annual hay	D	6	.7	16.3
Total tillable land in hay		129	27.4	30.5
Alfalfa pasture	B	35	2.9	11.8
Other tillable pasture	D	21	1.1	7.6
Total tillable land in pasture		50	4.0	11.4
Feed grain program (diverted acres)	B	92	25.1	39.3
Tillable land not cropped	D	11	1.6	21.3
Total tillable land		144	349.9	349.9
Wild hay		38	2.2	
Non-tillable pasture		71	19.4	
Timber not pastured		11	.6	
Roads and waste			16.8	
Farmstead			10.6	
Total acres in farm			399.5	
Percent land tillable			88.0	
Percent tillable land in high return crops			70.0	

* 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, 1967

Items	Average of farms growing each crop
Canning peas, dollars	\$56.89
Wheat, bu.	42.9
Oats for silage, tons	5.7
Oats for grain, bu.	61.3
Flax, bu.	19.3
Corn grain, bu.	81.2
Soybeans, bu.	23.7
Sweet corn, tons	5.1
Corn silage, tons	12.3
Alfalfa hay, tons	3.0
Other legume hay, tons	2.1
Annual hay, tons	2.7
Feed grain program, dollars	\$55.55
Wild hay, tons	1.4

Table 12. Average Price of Feeds, 1967

Items	Value	Items	Value
Ear corn, per bu.	\$1.12	Alfalfa hay, per ton	\$20.00
Oats, per bu.	.64	Timothy hay, per ton	11.60
Barley, per bu.	1.04	Wild hay, per ton	10.00
Wheat, per bu.	1.62	Corn silage, per ton	7.25
Soybean meal, per cwt.	5.00	Pasture, per mo. per cow	4.00

Table 13. Return Above Listed Costs per Acre of Crops

Items	Corn grain	Corn silage	Soybeans
Number of farms reporting	59	24	51
Yield per acre	81.2 bu.	11.8 tons	23.7 bu.
Price per unit	\$1.00	\$7.50	\$2.50
Total return	\$81.17	\$88.72	\$59.41
Fertilizer	14.36	12.34	1.07
Seeds, herbicides, etc.	9.66	8.60	6.45
Total listed costs	\$24.02	\$20.94	\$ 7.52
Return above listed costs	\$57.15	\$67.78	\$51.89

Items	Alfalfa hay	Oats
Number of farms reporting	46	35
Yield per acre	3.0 tons	59.2 bu.
Price per unit	\$21.00	\$.63
Total return	\$60.87	\$37.28
Fertilizer	\$ 4.71	\$ 1.62
Seeds, herbicides, etc.	4.87	3.45
Total listed costs	\$ 9.58	\$ 5.07
Return above listed costs	\$51.29	\$32.21

EXPLANATION OF "WORK UNITS" AND "ANIMAL UNITS"

The total "work units" for any one farm is a measure of the size of that farm business. A work unit as used in this report is the average accomplishment of a farm worker in a ten hour day, working on crops and productive livestock at average efficiency, or ten hours of work off the farm for pay. The number of work units for each class of livestock and each acre of crop are presented in Table 14.

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

Item	Number of work units	Item	Number of work units
Dairy cows	7.0 per cow	Small grain	.3 per acre
Other dairy cattle	1.5 per head	Sugar beets	1.5 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	1.0 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	10.0 per 100 hens	Other hay crops	.4 per acre
Canning peas	.5 per acre	Labor off the farm	1.0 per \$15
Soybeans for grain	.5 per acre		

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

Table 15. Factors of Costs and Returns from Dairy Cows, 1967

Items	Average of 30 farms	15 farms highest in butterfat per cow	15 farms lowest in butterfat per cow
Pounds of milk per cow	11116	12201	10032
Percent of butterfat in milk	3.6	3.6	3.6
Pounds of butterfat per cow	397	433	361
Price received per pound of butterfat sold	\$1.21	\$1.24	\$1.18
Price received per cwt. of milk sold	4.34	4.42	4.27
Value of produce per cow:			
Dairy product sales	\$470.66	\$528.23	\$413.11
Dairy produce used in home	5.97	4.03	7.90
Milk fed to livestock	4.12	4.79	3.44
Net increase in value of cows	-.38	-.20	-.57
TOTAL VALUE PRODUCED	<u>\$480.37</u>	<u>\$536.85</u>	<u>\$423.88</u>
Feed cost per cow:			
Concentrates	\$128.97	\$129.99	\$127.95
Roughages	99.56	104.77	94.35
Pasture	6.31	6.67	5.94
TOTAL FEED COST	<u>\$234.84</u>	<u>\$241.43</u>	<u>\$228.24</u>
RETURNS ABOVE FEED COST PER COW	\$245.53	\$295.42	\$195.64
RETURNS FOR \$100 OF FEED	\$212	\$231	\$193
Feeds per cow, lbs.:			
Corn	4051	4267	3835
Small grain	449	389	509
Commercial feeds	676	556	795
Total concentrates	5176	5212	5139
Total hay	5983	6642	5323
Silage	11332	11076	11587
Feed cost per pound of butterfat	\$.59	\$.56	\$.63
Feed cost per cwt. of milk produced	2.11	1.98	2.28
Number of cows*	32.3	36.5	28.1

* 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, 1967

Items	Average of 30 farms	15 farms highest in butterfat per cow	15 farms lowest in butterfat per cow
NET INCREASE IN VALUE OF OTHER DAIRY CATTLE	\$99.99	\$110.65	\$89.32
TOTAL FEED COST PER HEAD	\$58.94	\$65.04	\$52.83
RETURNS ABOVE FEED COST PER HEAD	\$41.05	\$45.61	36.49
RETURNS FOR \$100 OF FEED	\$170	\$170	\$170
Feed per head, lbs.:			
Concentrates	912	882	941
Hay	1886	2184	1588
Silage	3362	4000	2725
Whole milk	90	118	62
Number of head of other dairy	39.8	46.4	33.3

Table 17. Feed Costs and Returns from All Dairy Cattle, 1967

Items	Average of 30 farms	15 farms highest in butterfat per cow	15 farms lowest in butterfat per cow
Value of produce per cow:			
Dairy products	\$476.63	\$532.25	\$421.01
Net increase in value of dairy cattle	<u>128.27</u>	<u>146.22</u>	<u>110.33</u>
TOTAL VALUE PRODUCED	<u>\$604.90</u>	<u>\$678.47</u>	<u>\$531.34</u>
TOTAL FEED COST PER COW	\$308.74	\$324.53	\$292.95
RETURNS ABOVE FEED COST PER COW	\$296.16	\$353.94	\$238.39
RETURNS PER \$100 OF FEED	\$203	\$216	\$191
Feed per cow, lbs.:			
Concentrates	6352	6376	6327
Hay	8512	9622	7401
Silage	15958	16841	15075
Miscellaneous expenses per cow	\$28.71	\$30.27	\$26.19

Table 18. Feed Costs and Returns from Hogs, 1967

Items	92 farms with breeding stock				
	Average of 106 farms	Average of 92 farms	18 farms highest in returns above feed	18 farms lowest in returns above feed	14 farms with purchased feeder pigs
Pounds of hogs produced	73324	75888	65171	53186	56477
NET INCREASE IN VALUE PER CWT. PRODUCED	\$17.90	\$18.40	\$21.04	\$16.47	\$14.61
FEED COST PER CWT. PRODUCED	<u>12.49</u>	<u>12.29</u>	<u>11.06</u>	<u>14.46</u>	<u>13.76</u>
RETURN ABOVE FEED COST PER CWT. PRODUCED	\$ 5.41	\$ 6.11	\$ 9.98	\$ 2.01	\$.85
RETURNS FOR \$100 OF FEED	\$149	\$154	\$194	\$115	\$117
Price received per cwt. sold	\$19.27	\$19.04	\$20.04	\$18.26	\$19.07
Weight per hog sold	239	241	232	242	225
Miscellaneous costs per cwt. produced	\$.57	\$.59	\$.76	\$.37	\$.30
Feed per cwt. hogs produced, lbs.:					
Corn	306	298	288	378	357
Small grain	31	34	28	49	15
Commercial feeds	<u>104</u>	<u>103</u>	<u>69</u>	<u>112</u>	<u>109</u>
Total concentrates	<u>441</u>	<u>435</u>	<u>385</u>	<u>539</u>	<u>481</u>
Total number of litters raised	37	42	39	29	0
Number of pigs born per litter	9.0	9.0	9.3	9.1	-
Number of pigs weaned per litter	7.5	7.5	7.8	7.5	-
Number of feeder pigs bought	48	6	7	-	323
Total weight of feeders purchased	2094	237	259	-	14416
Price paid per feeder pig	\$15.97	\$14.93	\$15.66	-	\$16.74

Table 19. Feed Costs and Returns from Beef Breeding Herd, 1967

<u>Items</u>	<u>Average of 17 farms</u>
TOTAL VALUE PRODUCED PER COW	\$109.97
Feed cost per cow:	
Concentrates	\$ 9.48
Roughages	39.28
Pasture	27.93
TOTAL FEED COST	<u>\$76.69</u>
RETURNS ABOVE FEED COST PER COW	\$33.28
RETURNS FOR \$100 OF FEED	\$154
Miscellaneous costs per cow	\$6.46
Feed per cow, lbs.:	
Concentrates	334
Hay	2244
Silage	5024
Pounds of beef produced	15827
Number of cows	38.9
Number of other beef cattle	26.1

Table 20. Feed Costs and Returns from Feeder Cattle, 1967

Items	Average of 96 farms
Pounds of beef produced	70757
NET INCREASE IN VALUE OF FEEDERS	\$23.49
Feed cost per cwt. of beef produced:	
Concentrates	\$13.75
Roughages	4.62
Pasture	.25
TOTAL FEED COSTS	<u>\$18.62</u>
RETURNS ABOVE FEED COST PER CWT. BEEF PRODUCED	\$ 4.87
RETURNS FOR \$100 OF FEED	\$134
Miscellaneous costs per cwt. of beef produced	\$.50
Feeds per cwt. beef produced, lbs.:	
Corn	557
Small grain	7
Commercial feeds	42
Total concentrates	606
Total hay	253
Silage	595
Price paid per cwt. for beef bought	\$26.46
Price received for feeder cattle sold	24.67
Number of animal units	108.6

Table 21. Feed Costs and Returns from a Farm Flock of Sheep, 1967

Items	Average of 15 farms
Value of produce per ewe:	
Wool	\$ 5.20
Net increase in value of sheep	17.58
TOTAL VALUE PRODUCED	<u>\$22.78</u>
Feed cost per ewe:	
Concentrates	\$ 5.77
Roughages	7.35
Pasture	3.17
TOTAL FEED COSTS	<u>\$16.29</u>
RETURNS ABOVE FEED COST PER EWE	\$ 6.49
RETURNS FOR \$100 OF FEED	\$ 151
Miscellaneous expenses per ewe	\$.82
Feeds per ewe, lbs.:	
Concentrates	202
Hay	673
Silage	172
Price per cwt. of lambs sold	\$22.53
Price per pound of wool sold	\$.44
Pounds of wool per sheep sheared	9.5
Percent lamb crop*	103
Percent death loss*	5.9
Pounds of sheep produced	4658
Number of head of ewes	46

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

Table 22. Feed Costs and Returns from Chickens, 1967*

Items	Average of 24 farms
Value of produce per hen:	
Eggs sold and used in home	\$4.04
Net increase in value of chickens	<u>-.71</u>
TOTAL VALUE PRODUCED	\$3.33
TOTAL FEED COST PER HEN	\$3.38
RETURNS ABOVE FEED COST PER HEN	\$-.05
RETURNS FOR \$100 OF FEED	\$103
Miscellaneous expenses per hen	\$.11
Feed per hen, lbs.:	
Grain	67
Commercial feed	<u>36</u>
Total concentrates	103
Price received per dozen eggs sold	\$.22
Eggs laid per hen	217
Feed costs per dozen eggs produced	\$.19
Average number of hens on farm during the year	1156
Percent death loss of hens	6.7
Number of chicks bought	925
Number of hens bought	404

Table 23. Summary by Years

Items	Average 1940-44	Average 1945-49	Average 1950-54	Average 1955-59	Average 1960-64	1965	1966	1967
Number of farms	165	140	138	135	135	156	153	144
Total farm capital managed	\$36133	\$40590	\$57692	\$75246	\$99907	\$118992	\$122684	\$137702
Monthly charge for:								
Unpaid family labor*	63	118	130	134	147	160	160	160
Second operator	63	118	130	134	167	275	300	300
Board for hired labor	23	33	36	38	40	45	45	45
FARM EXPENSES								
Dairy cattle bought	\$ 120	\$ 175	\$ 215	\$ 151	\$ 146	\$ 145	\$ 135	\$ 99
Beef cattle bought	1405	2027	4097	7619	11153	10975	12295	12940
Hogs bought	275	447	448	473	723	738	827	801
Sheep bought (incl. feeders)	596	365	599	517	69	27	16	50
Poultry bought (incl. turkeys)	140	165	190	225	244	238	186	234
Horses bought	39	11	6	5	3	6	2	2
Miscellaneous livestock expense	140	248	378	525	592	644	660	738
Fertilizer				906	1223	1945	2311	3058
Miscellaneous crop expenses	402**	869**	1234**	908	1184	1782	1988	2720
Feed bought	2041	3191	4323	5503	7225	8191	9588	7867
Custom work hired	193	356	438	694	874	1041	1050	1284
Power and crop machinery (new)	655	1669	1864	1891	2057	3881	4151	4177
Power and crop machinery (upkeep)	675	1365	1735	2200	2718	3164	3279	3561
Livestock equipment (new)	112	99	164	327	415	505	565	480
Livestock equipment (upkeep)	55	111	135	194	207	235	252	230
Buildings and fencing (new)	341	676	881	832	1018	1172	1353	1949
Buildings and fencing (upkeep)	149	319	312	320	338	377	425	420
Hired labor	593	794	883	993	1092	1175	1223	1399
Taxes	330	403	622	910	1449	1843	1841	2000
General farm expense	98	174	260	364	430	517	518	581
Total farm purchases	\$ 8359	\$13464	\$18784	\$25557	\$33160	\$38601	\$42665	\$44590
Decrease in farm capital	-	-	-	-	-	-	-	-
Interest on farm capital	1806	2030	2885	3762	4991	5950	6134	7574
Unpaid family labor	310	377	358	379	500	702	657	699
Board furnished hired labor	142	107	91	92	82	89	72	69
Total farm expense	\$10617	\$15978	\$22118	\$29790	\$38733	\$45342	\$49528	\$52932

* These adjustments should be considered in comparing 1967 results with previous years.

** Includes fertilizer.

Table 23. Summary by Years (continued)

Items	Average 1940-44	Average 1945-49	Average 1950-54	Average 1955-59	Average 1960-64	1965	1966	1967
FARM RECEIPTS								
Dairy cattle	\$ 383	\$ 573	\$ 695	\$ 585	\$ 563	\$ 626	\$ 628	\$ 774
Dairy products	783	988	1085	1450	1888	2199	2633	3398
Beef cattle	3140	4246	7918	13025	20180	21094	21099	23989
Hogs	3622	6775	7455	7158	8431	11321	13877	10724
Sheep and wool	928	651	978	981	263	174	137	158
Poultry (incl. turkeys)	563	525	526	530	505	440	432	366
Eggs	597	1035	965	1013	1074	863	1103	863
Horses	44	23	8	5	4	1	1	-
Corn	584	1138	1855	3149	3401	3961	4707	6078
Soybeans	-	-	-	-	-	-	4567	5566
Small grain	1031	2055	1236	807	882	598	594	504
Other crops*	400	879	1023	1759	3855	6452	2482	2026
Machinery and equipment sold	196	364	367	266	373	457	267	434
Agricultural adjustment payment	370	65	64	44	43	33	-	-
Income from work off the farm	174	313	349	398	396	593	665	784
Miscellaneous farm income	224	78	137	306	386	503	678	844
Total farm sales	\$13039	\$19708	\$24661	\$31476	\$42244	\$49315	\$53870	\$56508
Increase in farm capital	1098	2395	1845	1157	1205	6359	7896	1988
Family living from the farm	553	666	553	278	288	274	279	289
Total farm receipts	\$14690	\$22769	\$27059	\$32911	\$43737	\$55948	\$62045	\$58785
Total farm expenses	10617	15978	22118	29790	38733	45342	49528	52932
Labor earnings	\$ 4073	\$ 6791	\$ 4941	\$ 3121	\$ 5004	\$10606	\$12517	\$ 5853
MEASURES OF FARM ORGANIZATION AND MANAGEMENT								
Percent high return crops**	41.2	56.4	59.7	63.4	68.1	65.4	67.5	70.0
Livestock units per 100 acres***	23.6	20.3	30.3	39.4	43.0	37.4	38.7	35.6
Work units****	588	501	470	469	533	556	576	449
Work units per worker*****	273	285	283	279	318	321	360	281
Expenses per work unit****	\$3.02	\$6.23	\$9.49	\$12.81	\$13.42	\$14.95	\$15.74	\$21.32

* Includes soybeans 1940-1965.

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

*** The basis for computing animal units was revised in 1951.

**** The basis for computing work units was revised in 1953 and 1967.

Table 24. Summary of Miscellaneous Items by Years

Items	Average 1940-44	Average 1945-49	Average 1950-54	Average 1955-59	Average 1960-64	1965	1966	1967
RETURN ABOVE FEED COST PER								
Dairy cow	\$61.87	\$114.96	\$111.51	\$125.34	\$140.97	\$141.25	\$197.29	\$245.53
Animal unit in beef herd	21.90	46.46	42.51	30.08	30.77	10.75	52.76	*
100 lbs. feeder cattle produced	3.11	8.87	5.26	5.88	1.94	7.12	.68	4.87
Ewe	-	-	-	-	6.80	11.06	12.20	6.49
100 lbs. hogs produced	4.05	6.29	6.23	4.52	4.28	11.22	8.03	5.41
Hen	1.72	2.15	1.09	1.05	.91	.28	1.32	-.05
FEED COST PER								
Dairy cow	67.74	121.21	142.90	147.40	181.72	213.32	222.41	234.84
Animal unit in beef herd	38.90	68.30	97.48	83.69	72.97	72.46	69.60	*
100 lbs. feeder cattle produced	14.56	21.66	22.68	17.70	18.32	21.12	22.09	18.62
Ewe	-	-	-	-	13.42	15.10	17.01	16.29
100 lbs. hogs produced	7.36	12.70	12.95	10.48	10.65	12.22	12.75	12.49
Hen	2.28	4.28	4.66	3.89	3.45	3.48	4.01	3.38
MISCELLANEOUS LIVESTOCK INFORMATION								
Number of dairy cows	8.1	5.3	4.7	5.2	5.7	6.1	6.2	6.7
Head in beef breeding herd	10.5	9.4	11.1	10.6	4.9	4.3	6.2	7.7
Pounds feeder cattle produced	9336	6676	12137	27685	41929	43527	46887	47171
Litters of pigs	18.5	19.5	21.7	24.6	28.0	27.8	29.1	27.2
Pounds of hogs produced	30411	34292	37265	44369	52828	52981	57697	52975
Number of hens	197	202	187	204	219	193	179	196
Pounds of butterfat per dairy cow	246	257	282	311	349	365	372	397
Pigs weaned per litter	6.1	6.3	6.7	7.2	7.0	7.2	7.4	7.5
Percent lamb crop	105	109	107	111	103	101	119	103
Eggs per hen	134	171	180	200	208	205	224	217

* Information not available.

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

Items	Average 1940-44	Average 1945-49	Average 1950-54	Average 1955-59	Average 1960-64	1965	1966	1967
PRICE RECEIVED PER								
Pound of butterfat in milk	\$.64	\$.98	\$.94	\$.91	\$.94	\$.98	\$ 1.14	\$ 1.21
100 pounds fat cattle	11.73	21.71	26.61	22.51	22.86	23.72	24.39	24.67
Pound of wool	.38	.41	.60	.51	.58	.53	.66	.44
Dozen of eggs	.26	.37	.35	.29	.27	.25	.31	.22
100 pounds of hogs sold	10.86	19.54	19.43	15.96	15.45	20.34	23.07	19.27
PRICE OF FEED								
Corn, bu.	.70	1.24	1.31	1.11	.99	1.13	1.19	1.12
Oats, bu.	.46	.74	.74	.59	.61	.63	.66	.64
Barley, bu.	.58	1.31	1.15	.92	.91	.98	1.02	1.04
Alfalfa hay, ton	10.00	18.60	18.30	18.20	19.40	23.00	21.00	20.00
Timothy hay, ton	6.24	10.86	10.60	10.58	11.22	13.00	12.20	11.60
Corn silage, ton	3.20	6.07	6.00	6.08	6.60	7.75	7.30	7.25
Soybean meal, cwt.	2.51	4.15	4.50	-	4.36	4.60	5.25	5.00
ACRES PER FARM								
Small grains	89.9	73.9	70.5	48.8	39.5	26.3	27.4	24.2
Cultivated crops	89.5	100.3	107.0	153.7	187.0	228.9	233.8	267.6
Tillable land in hay	27.4	19.1	28.1	34.9	31.0	29.1	27.4	27.4
Tillable land in pasture	24.5	15.2	14.8	13.2	6.8	6.1	4.5	4.0
Tillable land not cropped	5.1	2.4	1.4	2.2	25.9*	46.4*	35.0*	26.7*
Total tillable land	236.4	210.9	221.8	252.8	290.2	336.8	328.1	349.9
Non-tillable land	45.6	43.1	43.4	40.5	44.6	48.2	44.0	49.6
Total acres per farm	282.0	254.0	265.2	293.3	334.8	385.0	372.1	399.5
YIELDS PER ACRE								
Flax, bu.	10.5	13.7	11.5	13.0	13.6	18.2	10.9	19.3
Oats, bu.	40.4	46.3	41.4	51.7	54.8	61.2	58.9	61.3
Corn grain, bu.	49.7	47.8	53.7	57.1	71.3	62.7	84.0	81.2
Corn silage, tons	8.9	8.4	9.2	9.7	11.8	10.7	13.2	12.3
Soybeans, bu.	17.8	14.4	19.8	22.5	25.5	20.2	26.9	23.7
Alfalfa hay, tons	2.2	2.1	2.5	2.5	3.0	2.8	2.9	3.0

* Including feed grain program.