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UNIVERSITY OF MINNESOTA
Department of Agriculture
and the
TENNESSEE VALLEY AUTHORITY
and the
County Extension Services
of
Brown, Jackson, Kandiyohi, Martin, Murray, Nobles,
Stevens, Swift, Watonwan, and Yellow Medicine Counties
Cooperating

- 0 -

Annual Report
of the
Farm Management Service
for T.V.A. Phosphate-Test
Demonstration Cooperators
in Southwestern Minnesota
1942

- 0 -

Cooperator _____

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Division of Agricultural Economics
University Farm
St. Paul Minnesota
June 1943

THIRD ANNUAL REPORT OF THE FARM MANAGEMENT SERVICE
FOR T.V.A. PHOSPHATE TEST DEMONSTRATION COOPERATORS
IN SOUTHWESTERN MINNESOTA FOR THE YEAR 1942

Prepared by T. R. Nodland and G. A. Pond

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INTRODUCTION

The Division of Agricultural Economics and the Division of Agricultural Extension of the University of Minnesota, the Tennessee Valley Authority and the county extension services of several southwestern Minnesota counties are cooperating in a phosphate test demonstration project and in a farm management service. This service is offered to a selected group of farmers who have agreed to demonstrate the value of phosphate fertilizer and who have also agreed to keep farm business records. The phosphate is provided by the T.V.A. and the fieldman is provided by the T.V.A. and the Agricultural Extension Service. Each farmer pays the freight and other miscellaneous expenses that may occur between the point of shipment and the farm on all the T.V.A. phosphate furnished and \$10.00 per year to cover the summarization of the records and other miscellaneous expenses. The balance of the cost is defrayed by the University of Minnesota.

The analysis of the farm business records and the preparation of the reports are handled by the Division of Agricultural Economics under the direction of G. A. Pond and T. R. Nodland. The field organization is handled by the Division of Agricultural Extension with C. L. McNelly and P. M. Burson in charge of this work. J. R. Burkholder was the field agent on this project. County agricultural agents who cooperated in this project include Paul Kunkel, Roland Abraham, Ronald McCamus, S. B. Simpson, A. B. Hagen, C. E. Stower, Kenneth Hanks, H. W. Soderburg, Wayne Hanson, and George Gehant.

The following tabulation shows by counties the number of cooperators who completed records in 1942:

Brown	13	Nobles	14
Jackson	12	Stevens	8
Kandiyohi	7	Swift	7
Martin	14	Watonwan	10
Murray	3	Yellow Medicine	<u>12</u>
		Total	100

The tables on page 4 and succeeding pages show data for 95 farms. Five farms have been omitted from all the averages in the tables because the records were not sufficiently complete for a full analysis.

The records kept by the cooperators include inventories at the beginning and end of the year, cash receipts and expenses and a record of the farm produce used by the farm family. Complete household and personal records were also kept by the cooperators. Supplementary information was secured during the year regarding crop and livestock production and practices.

At the end of the year, the books were taken to the central office at University Farm, where they were checked and summarized. For the purpose of comparison, the earnings as shown in this report are computed as if each operator was a full owner; however, each tenant is supplied a statement of his earnings on the basis of the rental system under which he is operating.

TYPE OF FARMING*

The farms in this area have a wide diversity of enterprises. All classes of livestock are important although livestock kept for meat production tends to predominate. The sale of crops constitutes an important source of income. The principal feed crops grown are corn, oats, barley and hay. In addition wheat, flax, sweet corn, hybrid seed corn, sugar beets, and canning peas are grown to a limited extent as cash crops.

TOPOGRAPHY, SOILS AND WEATHER

The soils range from dark brown to heavy black loam. The major part of the area is undulating to gently rolling land interspersed with almost level tracts. In the southwestern part of the area the surface ranges from undulating to sharply rolling and in the northwestern part the surface is nearly level. Nearly all the land is tillable and well drained.

*For a more complete description of the area, see Engene, S. A., and Pond, G. A., "Agricultural Production and Types of Farming in Minnesota", Minnesota Bulletin No. 347, May, 1940.

Table 1. Monthly and Annual Precipitation

	Worthington		Fairmont		Willmar		Morris	
	Precipitation	Departure from normal	Precipitation	Departure from normal	Precipitation	Departure from normal	Precipitation	Departure from normal
	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches
January	0.19	-0.44	0.05	-0.75	0.08	-0.38	0	-0.77
February	0.41	-0.36	0.22	-0.75	0.67	-0.25	0.09	-0.59
March	4.55	+3.29	2.27	+0.86	2.74	+1.49	1.75	+0.79
April	1.26	-0.82	1.44	-0.79	0.93	-0.83	1.91	-0.04
May	6.36	+2.42	3.83	-0.22	7.10	+4.09	8.89	+5.68
June	5.57	+1.28	3.06	-1.28	3.82	-0.26	2.79	-1.25
July	4.14	+0.75	4.45	+0.89	4.20	+1.00	2.06	-1.50
August	4.52	+0.76	4.70	+0.96	2.22	-1.42	4.85	+1.84
September	4.66	+1.12	3.62	-0.01	11.13	+8.03	5.94	+3.52
October	0.80	-0.89	1.00	-0.85	0.30	-1.48	1.45	-0.19
November	0.51	-0.66	0.39	-1.12	0.13	-0.85	0.07	-0.97
December	0.50	-0.11	0.95	+0.05	1.10	+0.44	0.70	+0.04
1942 total	33.47	+6.34	25.98	-3.01	34.42	+9.58	30.50	+6.56
1941 total	28.22	+1.09	32.92	+3.93	28.91	+4.07	25.61	+1.67
1940 total	22.50	-4.63	28.72	-0.27	21.89	-2.95	23.72	-0.22
1939 total	24.27	-2.86	21.92	-7.07	18.99	-5.85	21.70	-2.24
1938 total	40.50	+13.37	39.99	+11.00	26.28	+1.44	23.06	-0.88
Normal annual precipitation	27.13		28.99		24.84		23.94	

No unusually high or low temperatures occurred in 1942. Weather conditions were favorable for early spring farm activities; however, cool wet weather in May retarded growth of vegetation, and the planting of corn and other late crops was seriously delayed. Favorable weather conditions in June permitted field work to progress rapidly. Small grain and grasses did well in June and July, but it was too cool for warm weather crops. Rust damage occurred with flax suffering the most. Heavy rains caused considerable damage and delayed haying and harvesting of small grain. Heavy rains, snow, and a hard freeze on September 24 damaged late corn and soybeans. Fortunately, ideal October weather lessened the effect of the September freeze.

Table 2. Monthly Temperatures, 1942

	Worthington		Fairmont		Willmar		Morris	
	Temperature	Departure from normal	Temperature	Departure from normal	Temperature	Departure from normal	Temperature	Departure from normal
	(Degrees Fahrenheit)							
January	19.0	+4.9	19.8	+6.0	18.8	+7.7	19.2	+10.9
February	19.8	+2.6	20.0	+2.9	18.4	+3.5	18.4	+5.9
March	33.0	+3.0	35.0	+4.9	34.4	+6.9	35.2	+8.3
April	50.0	+4.7	51.4	+5.4	50.8	+6.5	47.2	+2.7
May	54.6	-1.9	55.6	-1.9	53.8	-2.3	52.3	-3.6
June	66.0	0.0	67.6	+0.3	64.2	-1.4	61.6	-4.4
July	70.4	-0.8	72.4	+0.1	69.5	-1.5	68.4	-2.2
August	69.0	-0.1	71.0	+1.2	69.6	+1.3	67.2	-0.9
September	55.6	-5.5	57.8	-3.8	56.6	-2.9	54.2	-5.2
October	48.1	-0.3	50.6	+1.7	48.6	+2.1	47.9	+1.4
November	33.0	+0.5	34.0	+1.1	32.0	+2.7	31.0	+1.5
December	14.8	-4.6	16.1	-4.2	13.2	-2.5	11.3	-4.4

Table 3. Summary of Farm Inventories (Beginning of Year), 1942

Items	Your farm	Average of 95 farms	19 most profitable farms	19 least profitable farms
Size of farm (acres)	_____	246	344	194
Size of business (work units)*	_____	541	773	366
Horses	\$ _____	\$ 322	\$ 401	\$ 251
Productive livestock (total)	_____	4,595	9,715	2,667
Dairy and dual purpose cows	_____	759	872	661
Other dairy & dual purpose cattle	_____	446	540	326
Beef cattle (including feeders)	_____	1,779	5,486	607
Hogs	_____	1,209	2,099	914
Sheep (including feeders)	_____	254	540	58
Poultry (including turkeys)	_____	148	178	101
Crop, seed, and feed	_____	3,425	5,501	2,521
Mach. & equipment (total)	_____	2,870	4,185	2,158
Power mach. (f. share)	_____	1,181	1,654	981
Crop & gen. mach.	_____	1,345	2,004	975
Livestock equip. & supplies	_____	344	527	202
Buildings, fences, etc.	_____	6,379	8,538	5,156
Land	_____	<u>11,386</u>	<u>18,460</u>	<u>7,546</u>
Total farm capital	\$ _____	\$28,977	\$46,800	\$20,299

*Explanation of term: "Work units."

The total "work units" for any one farm is a measure of size of that farm business. It is the accomplishment of a farm worker in a ten-hour day working on crops and productive livestock at average efficiency.

The number of work units for each animal and each acre of crops used in this report are listed as follows:

Item	Per	No. of work units	Item	Per	No. of work units
Dairy and dual purpose cows	cow	13.5	Small grain	acre	.7
Other dairy & dual purpose cattle	) animal unit*	4.0	Soybeans for grain	"	.9
Beef breeding herd		4.0	Sugar beets	"	3.0
Sheep - farm flock	) 100 hens	1.6	Sweet corn	"	2.5
Hens		26.0	Corn, husked	"	1.3
Feeder cattle	) 100 lbs.	.35	Corn, hogged	"	.8
Feeder sheep		.4	Corn, shredded	"	2.5
Hogs	) produced	.25	Corn silage	"	1.9
Turkeys		.7	Corn fodder	"	1.3
Canning peas	acre	2.0	Alfalfa hay	"	1.0
			Soybean hay	"	1.4
			Other hay crops	"	.6

*Animal unit represents one cow, one bull, one feeder steer or heifer, two head of other cattle, seven head of sheep, fourteen lambs, five hogs, ten pigs, 100 hens, or 1,400 lbs. turkeys produced.

Table 4. Summary of Farm Inventories (End of Year), 1942

Items	Your farm	Average of 95 farms	19 most profitable farms	19 least profitable farms
Horses	\$ _____	\$ 321	\$ 465	\$ 267
Productive livestock (total)	_____	5,563	11,166	3,288
Dairy & dual purpose cows	_____	788	905	568
Other dairy & dual purpose cattle	_____	486	528	300
Beef cattle (including feeders)	_____	1,753	4,984	809
Hogs	_____	1,854	3,045	1,333
Sheep (including feeders)	_____	484	1,474	126
Poultry (including turkeys)	_____	198	230	152
Crop, seeds, and feed	_____	3,744	6,218	2,498
Mach. & equipment (total)	_____	3,122	4,734	2,395
Power machinery (f. share)	_____	1,248	1,842	1,082
Crop and gen. machinery	_____	1,477	2,332	1,086
Livestock equipment & supplies	_____	397	560	227
Buildings, fences, etc.	_____	6,400	8,837	5,156
Land	_____	11,386	18,460	7,546
Total farm capital	\$ _____	\$30,536	\$49,880	\$21,150

Table 5. Summary of Amount of Livestock, 1942

Items	Your farm	Average of 95 farms	19 most profitable farms	19 least profitable farms
No. of horses	_____	3.7	4.7	3.3
No. of colts	_____	.7	1.2	.5
No. of dairy & dual purpose cows	_____	9.8	11.3	7.5
Head of other dairy & dual purpose cattle	_____	10.6	12.0	7.6
Head of cattle kept in beef breeding herd	_____	8.4	8.8	6.3
Net gain in weight - feeder cattle	_____	5,059	16,871	956
Net gain in weight - feeder sheep	_____	702	2,207	0
Litters of pigs	_____	16.0	24.3	11.0
Pound of hogs produced	_____	26,774	41,660	16,408
Head of sheep (2 lambs = 1 head)	_____	17.6	32.0	6.9
No. of hens	_____	188	220	126
Total no. of prod. livestock animal units	_____	49.8	92.32	28.9
% of total that are:				
Dairy and dual purpose cows	_____	24.2	18.6	26.4
Other dairy and dual purpose cattle	_____	13.3	10.1	12.0
In beef breeding herd	_____	13.2	7.7	16.9
Feeder cattle	_____	10.4	17.9	8.4
Sheep - farm flock	_____	5.2	6.5	2.5
Sheep - feeders	_____	1.2	2.6	0
Hogs	_____	26.5	29.0	29.2
Turkeys	_____	1.5	4.2	0
Chickens	_____	4.5	3.4	4.6

Table 6. Summary of Farm Earnings (Cash Statement), 1942

Items	Your farm	Average of 95 farms	19 most profitable farms	19 least profitable farms
FARM EXPENSES				
Horses bought	\$ _____	\$ 32	\$ 81	\$ 27
Dairy and dual purpose cows bought	_____	35	22	52
Other dairy & dual purpose cattle bought	_____	39	21	25
Beef cattle bought (including feeders)	_____	934	3,561	240
Hogs bought	_____	254	448	276
Sheep bought (including feeders)	_____	489	1,792	62
Poultry bought (including turkeys)	_____	122	277	51
Misc. crop expenses	_____	317	436	212
Feed bought	_____	1,401	2,897	723
Power mach. (farm share) (new)	_____	278	504	336
Power mach. (farm share) (upkeep)	_____	474	658	399
Custom work hired	_____	172	161	167
Crop and general mach. (new)	_____	326	701	205
Crop and general mach. (upkeep)	_____	102	154	65
Livestock equipment (new)	_____	98	102	60
Livestock equipment (upkeep)	_____	46	91	32
Misc. livestock expense	_____	109	173	76
Buildings and fencing (new)	_____	311	618	266
Buildings and fencing (upkeep)	_____	135	151	96
Hired labor	_____	348	622	198
Taxes	_____	258	388	205
Insurance	_____	35	43	26
General farm	_____	41	46	30
(1) Total farm purchases	_____	\$6,356	\$13,947	\$3,829
(2) Decrease in farm capital	_____	-	-	-
(3) Board furnished hired labor	_____	129	211	94
(4) Interest on farm capital	_____	1,488	2,417	1,036
(5) Unpaid family labor	_____	381	431	272
(6) Total farm expenses (Sum of (1) to (5))	_____	\$8,354	\$17,006	\$5,231
FARM RECEIPTS				
Horses	_____	\$ 31	\$ 18	\$ 20
Dairy and dual purpose cows	_____	263	288	324
Dairy products	_____	859	1,119	670
Other dairy and dual purpose cattle	_____	271	253	263
Beef cattle (including feeders)	_____	2,260	7,727	467
Hogs	_____	3,410	5,403	2,094
Sheep and wool (including feeders)	_____	537	1,556	53
Poultry (including turkeys)	_____	594	1,704	87
Eggs	_____	532	647	344
Corn	_____	550	1,161	455
Small grain	_____	828	877	623
Other crops	_____	294	173	106
Power machinery sold	_____	100	191	146
Crop and gen. mach. sold	_____	65	147	18
Misc.	_____	167	324	73
Income from work off the farm	_____	131	173	43
Agricultural adjustment payments	_____	443	629	359
(7) Total farm sales	_____	\$11,335	\$22,390	\$6,145
(8) Increase in farm capital	_____	1,559	3,080	851
(9) Family living from the farm	_____	575	681	463
(10) Total farm receipts (7) + (8) + (9)	_____	\$13,469	\$26,151	\$7,459
(6) Total farm expenses	_____	8,354	17,006	5,231
(11) Operator's labor earnings (10) - (6)	_____	5,115	9,145	2,228

Table 7. Summary of Farm Earnings (Enterprise Statement), 1942 (A)

Items	Your farm	Average of 95 farms	19 most profitable farms	19 least profitable farms
EXPENSES AND NET DECREASES				
Total power	\$ _____	\$ 735	\$ 902	\$ 637
Horses	_____	131	177	93
Tractor	_____	293	360	284
Truck	_____	49	89	29
Auto (farm share)	_____	149	147	123
Gas engine (farm share)	_____	1	2	1
Elec. plant or current (farm share)	_____	41	55	40
Hired power	_____	71	72	67
Crop and general machinery	_____	251	340	196
Livestock equipment	_____	85	153	52
Buildings, fencing and tiling	_____	312	343	263
Misc. productive livestock expense	_____	108	170	74
Labor	_____	899	1,304	598
Real estate taxes	_____	210	309	169
Personal property tax	_____	48	79	36
Insurance	_____	35	43	26
General farm	_____	41	46	30
Interest on farm capital	_____	1,488	2,417	1,036
(1) Total expenses & net decreases	_____	\$4,212	\$6,106	\$3,117
RETURNS AND NET INCREASES				
All productive livestock	_____	\$8,163	\$14,452	\$4,446
Dairy and dual purpose cows	_____	1,063	1,252	844
Other dairy & dual purpose cattle	_____	516	558	293
Beef breeding herd	_____	415	590	340
Feeder cattle	_____	900	3,144	131
Hogs	_____	3,871	5,995	2,299
Sheep - farm flock	_____	153	224	59
Sheep - feeders	_____	125	475	0
Turkeys	_____	372	1,336	0
Chickens	_____	748	878	480
Crops, seed and feed	_____	424	-205	367
Income from work off the farm	_____	131	173	43
Agricultural conservation payments	_____	443	629	359
Miscellaneous	_____	166	202	130
(2) Total returns & net increases	_____	\$9,327	\$15,251	\$5,345
(1) Total expenses & net decreases	_____	4,212	6,106	3,117
(3) Oper. labor earnings (2) minus (1)	_____	5,115	9,145	2,228

(A) Cash receipts and expenses are adjusted for changes in inventory for each enterprise and for each item of expense in order to show total receipts and net increases, and total expenses and net decreases. The operator's labor earnings are the same as those on page 6.

ANALYSIS OF THE REASONS FOR DIFFERENCES IN OPERATOR'S EARNINGS

The operator's labor earnings varied widely among the farmers included in this study. The average labor earnings of those farmers ranking in the upper 20 per cent in the range according to earnings was \$9,145 and of those in the lower 20 per cent was \$2,228. This is a range of \$6,917 between the average earnings of these two groups. Some of the causes for these differences in earnings may be beyond the control of the farmer. However, all of these farmers could make some changes in their farming operations which would increase earnings. A farmer can secure some ideas as to changes that could profitably be made on his farm by studying the facts about his business as presented in this report and comparing his accomplishments with other farmers following the same general type of farming. The more important management factors affecting earnings and their relationships with earnings are presented in the following tables.

Table 8. Relation of Crop Yields to Farm Earnings

Per cent crop yields were of the average for all 95 farms	Average	Number of farms	Average operator's labor earnings
Below 90	77	25	\$3,753
90 - 113	102	49	5,182
114 and above	124	21	6,582

High production per acre, up to certain limits, tends to lower the cost per bushel of grain or per ton of hay. Any possible method of management that will increase crop yields and therefore lower cost of production more than the extra expense incurred in securing the higher yields should be given consideration.

Table 9. Relation of Choice of Crops to Farm Earnings

Per cent of tillable land in high return crops*	Average	Number of farms	Average operator's labor earnings
Below 35.0	31.6	24	\$4,765
35.0 - 44.9	39.9	50	5,228
45.0 and above	49.0	21	5,248

*Crops are marked on page 14 as (A), (B), (C), and (D). All of acres in (A) crops, one half of acres in (B) crops, and one fourth of acres in (C) crops are used in calculating per cent of tillable land in high return crops.

Farmers' earnings are affected by the choice of crops as well as by the yields of crops. As a rule, on these farms, such crops as alfalfa, clover, canning crops, sugar beets, corn, and flax bring a higher net return per acre than other crops usually grown. Additions can be made to earnings by putting as high a percentage as possible of the tillable land into these higher return crops.

Table 10. Relation of Returns from Productive Livestock to Farm Earnings

Index of gross returns from productive livestock*		Number of farms	Average operator's labor earnings
Group	Average		
Below 89	78	24	\$4,370
89 - 109	98	46	5,098
110 and above	124	25	5,863

*Feed records were not kept on most of these farms. The index represents gross returns and is weighted by the number of animal units of each class of livestock.

The majority of these farms are livestock farms. High gross returns from livestock are accompanied by high farm income. A large proportion of the crops raised are fed on the farm and some additional feed is purchased. Feed is the major item of cost in livestock production and livestock constitute an important source of income on these farms. There are a number of reasons for differences among farms in livestock returns. High productivity per animal and economy in the use of feed and labor are important. Other factors of considerable importance are kind of feed used, quality of pastures, balance of ration, degree of sanitation, and kind of shelter and equipment.

Table 11. Relation of Amount of Productive Livestock to Farm Earnings

Productive livestock units per 100 acres*		Number of farms	Average operator's labor earnings
Group	Average		
Below 16.0	10.6	20	\$3,623
16.0 - 26.9	20.7	54	4,894
27.0 and above	35.2	21	7,107

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

The information in Table 11 shows the relationship of amount of livestock maintained on these farms to operator's labor earnings. On some farms the returns from livestock are so low that they do not cover labor, feed and other costs. Such livestock is unprofitable, especially if there is more than enough to utilize what would otherwise be waste feed. If the livestock is yielding a net return, an increased amount of livestock adds to size of business and the opportunity to increase the farm earnings. Livestock produces manure and aids in keeping up the fertility of the land, and utilizes waste products on the farm. Livestock also helps to provide productive employment throughout the year. Any method that aids in utilizing the available resources to full and efficient capacity should add to the farm income.

Table 12. Relation of Size of Business (Work Units) to Farm Earnings

Number of work units		Number of farms	Average operator's labor earnings
Group	Average		
Below 375	319	26	\$3,400
375 - 649	513	44	4,731
650 and above	822	25	7,575

Average farm earnings tend to increase with an increase in size of business. For farmers operating their farms at a loss, the larger the volume of business, the larger will be the loss, but a farmer who is making a profit could make a larger profit if he increased his size of business, providing that in so doing he does not lower materially the efficiency in some one or more important branches of his business. Those farmers who have large businesses usually have more flexibility of their organization than does the man with a small business, and can utilize more efficiently and to better advantage available labor, power, machinery and buildings. The size of the farm business may be increased by farming more land, by keeping more livestock, or by keeping livestock or growing crops of a more intensive type.

Table 13. Relation of Amount of Work Accomplished per Worker to Farm Earnings

Work units per worker		Number of farms	Average operator's labor earnings
Group	Average		
Below 220	189	21	\$3,629
220 - 309	265	53	4,921
310 and above	364	21	7,093

More units of work accomplished per worker reduces the labor charge per unit of business. Higher labor accomplishment can be secured in several ways. In the first place, the business must be large enough so that there will be at least sufficient work available for the family labor. The farm should be so organized that the labor requirements are well distributed throughout the year. Handling pastures in such a way that as large a proportion as possible of the year's feed for livestock may be obtained from them helps to reduce labor requirements. Proper planning of the farm work and economical use of labor-saving machinery help to increase the work accomplished per worker.

Table 14. Relation of Power, Machinery, Eqpt., & Bldg., Expense to Farm Earnings*

Expense per work unit		Number of farms	Average operator's labor earnings
Group	Average		
\$3.30 and above	\$4.22	22	\$4,020
\$2.00 - \$3.29	2.56	45	4,857
Below \$2.00	1.73	28	6,391

*Includes building, fencing, all crop machinery and livestock equipment, horse feed, and miscellaneous horse expense.

The expense factor does not show as high relationship with earnings when prices are high as when they are low. Some farms are under-equipped. On a few farms, excessive expenses constitute the main factor causing earnings to be very low.

Some of the cash expenses can be kept down by careful management. Oftentimes necessary repairs and improvements can be made by using the available farm labor rather than by hiring extra help. Repairs and overhauling should be done before spring work begins insofar as possible; or on rainy days or in other spare time during the summer. Reducing the number of horses to the minimum required for efficient operation of the farm helps reduce the power expense. In some cases, farmers can offset some or all of the power and machinery expense by using their equipment for outside work.

EFFECT OF WELL-BALANCED EFFICIENCY ON FARM PROFITS

It is quite evident from this report that few farmers have a monopoly on efficiency. Quite often farm operators show efficient management in one part of the farm business, which is offset by poor results in other phases. These farmers get medium returns while those who fall down all along the line get the lowest returns, and on the other hand those few who can manage to attain high efficiency in all parts of their organization receive returns well above the average. This is well illustrated in Table 15.

Table 15. Relation of Operator's Labor Earnings to the Number of Factors in which the Farmer is Above Average

No. of factors in which farm excels	No. of farms	Your farm	The length of the shaded lines are in proportion to the average operator's labor earnings	Average operator's labor earnings
None	3	_____	XXXXXXXXXXXXXXXXXX	\$2,841
One	6	_____	XXXXXXXXXXXXXXXXXX	3,199
Two	22	_____	XXXXXXXXXXXXXXXXXXXX	3,508
Three	18	_____	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	5,053
Four	26	_____	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	5,031
Five	8	_____	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	7,265
Six or seven	12	_____	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	8,434

The array in Table 15 indicates that it will be worth-while for each cooperator to study carefully his ranking on pages 12 and 13, and learn his standing in respect to each of the above factors and the elements of strength and weakness in his farm business.

Table 16. Measures of Farm Organization and Management Efficiency, 1942

Measures used in chart on page 13	Your farm	Average of 95 farms	19 most profit- able farms	19 least profit- able farms
Operator's labor earnings	\$ _____	\$5,115	\$9,145	\$2,228
(1) Crop yields*	_____	100	110	90
(2) % of tillable land in high return crops**	_____	39.8	38.3	38.2
(3) Gross returns from prod. livestock***	_____	100	105	93
(4) Prod. livestock units per 100 acres****	_____	21.8	27.3	16.9
(5) Size of business - work units	_____	541	773	366
(6) Work units per worker	_____	270	314	226
(7) Power, mach., equip. & bldg.exp.per work unit \$	_____	\$2.70	\$2.25	\$3.25

Measures and items related to some of the above measures:

(3) Index of gross returns from -				
Dairy cattle	_____	100	101	94
Dual purpose cattle	_____	100	84	117
Beef cattle - breeding herd	_____	100	153	91
Beef cattle - feeders	_____	100	125	82
Hogs	_____	100	100	97
Sheep - farm flock	_____	100	79	74
Sheep - feeders	_____	100	-	-
Turkeys	_____	100	-	-
Chickens	_____	100	96	90
(5) Work units on crops	_____	183	260	140
Work units on productive livestock	_____	325	470	215
Other work units	_____	33	43	11
(6) Total number of workers	_____	2.0	2.5	1.7
Number of family workers	_____	1.5	1.6	1.4
Number of hired workers	_____	.5	.9	.3
(7) Power expense per work unit	\$ _____	\$1.44	\$1.12	\$1.81
Crop machinery expense per work unit	_____	.48	.40	.56
Livestock equipment expense per work unit	_____	.15	.20	.12
Buildings and fencing expense per work unit	_____	.63	.53	.76

*Given as a percentage of the average

**Crops are marked on page 14 as (A), (B), (C) and (D). All of acres in (A) crops, one half of acres in (B) crops, and one fourth of acres in (C) crops are used in calculating per cent of tillable land in high return crops.

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

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

Thermometer Chart

Using your figures from page 12, locate your standing with respect to the various measures of farm organization and management efficiency. The averages for the 95 farms included in this summary are located between the dotted lines across the center of this page.

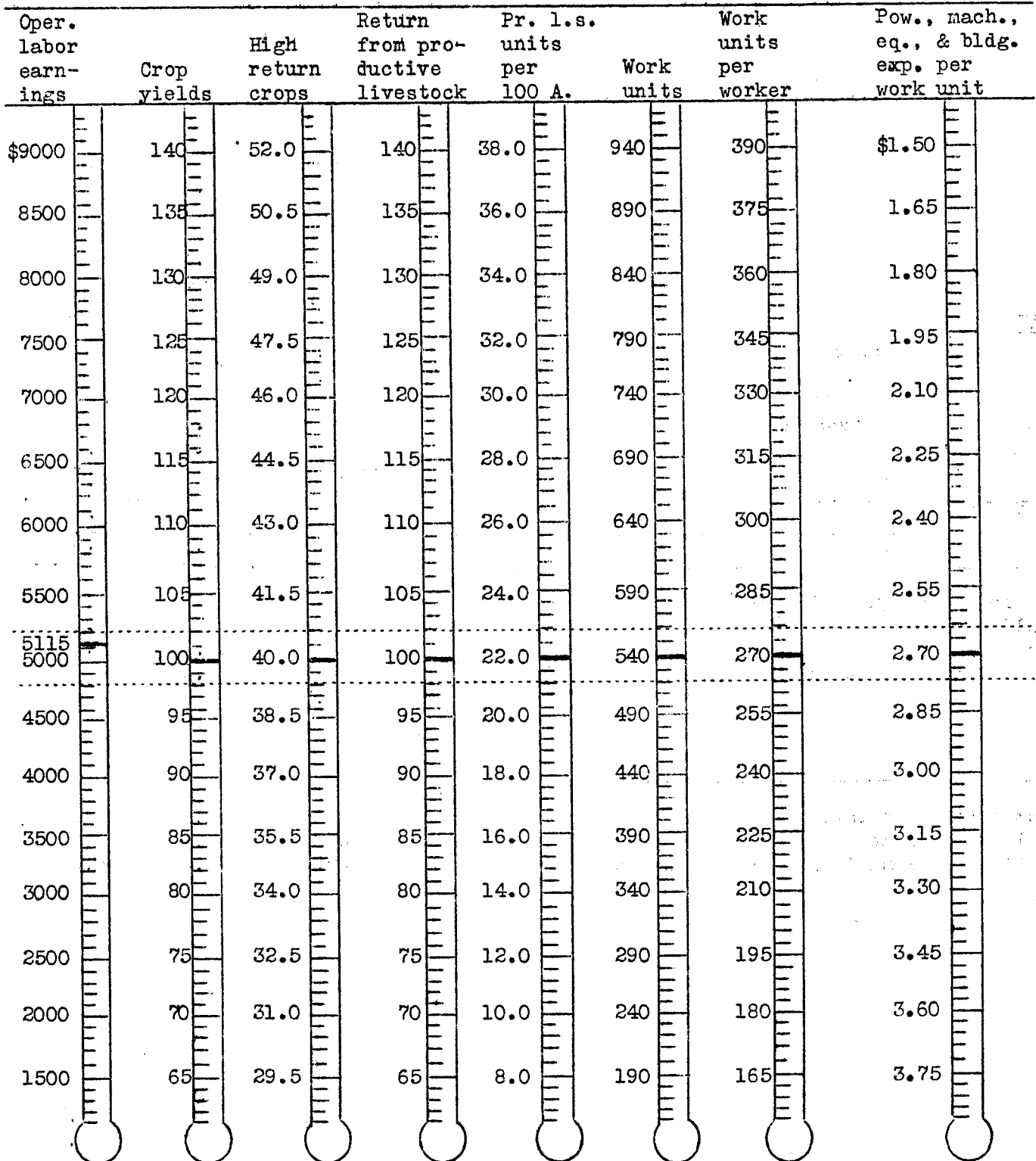


Table 17. Distribution of Acres in Farm, 1942

Crop: (A), (B), (C), and (D), refer to ranking used in calculating % of tillable land in High Return Crops (see page 12)	No. growing this crop	Your farm	Average of 95 farms	19 most profitable farms	19 least profitable farms
Canning peas (A)	4	_____	.4	.4	0
Flax (B)	82	_____	29.2	35.6	25.3
Barley (C)	56	_____	13.3	9.7	18.6
Barley and oats (C)	11	_____	6.6	21.0	1.9
Wheat (C)	36	_____	6.1	2.8	8.9
Oats (D)	79	_____	27.9	39.1	17.6
Oats and wheat (D)	5	_____	1.5	1.6	1.6
Rye (D)	4	_____	.9	.8	.5
Soybeans for grain (D)	42	_____	7.3	14.9	6.1
Total Small Grain and Peas	95	_____	93.2	125.9	80.5
Sugar beets, hybrid seed corn, potatoes and truck crops (A)	31	_____	1.3	.3	.5
Sweet corn (B)	5	_____	.4	0	.5
Corn, grain (B)	93	_____	54.6	94.5	34.0
Corn silage (C)	56	_____	6.3	10.1	4.3
Corn fodder (D)	12	_____	.7	.6	.7
Total cultivated crops	95	_____	63.3	105.5	40.0
Alfalfa hay (A)	90	_____	21.1	25.7	16.5
Sweet clover hay (B)	7	_____	.8	1.2	.4
Soybean hay (C)	5	_____	.6	0	.6
Mixed legumes & non-legumes (C)	23	_____	2.5	2.7	4.1
Legumes for seed (C)	2	_____	.1	0	.6
Timothy and/or brome (D)	12	_____	.6	.8	.3
Other annual hay (D)	4	_____	.2	.1	.9
Total tillable land in hay	94	_____	25.9	30.5	23.4
Alfalfa pasture (A)	33	_____	1.7	2.5	1.5
Sweet clover pasture (B)	39	_____	7.8	10.9	5.1
Mixture inc. alf.,sw.clo.,brome (B)	36	_____	9.4	18.4	6.6
Other legumes and mixtures (C)	24	_____	3.7	5.8	2.9
Sudan grass or rape pasture (C)	11	_____	.8	.5	1.0
Other tillable pasture (D)	26	_____	3.3	5.3	4.5
Total tillable land in pasture	87	_____	26.7	43.4	21.6
Tillable land not cropped (D)	22	_____	3.3	2.2	5.4
Total tillable land		_____	212.4	307.5	170.9
Phalaris hay (non-tillable)	4	_____	.2	0	.1
Wild hay (non-tillable)	32	_____	4.7	.8	5.5
Non-tillable pasture	47	_____	9.7	10.6	4.2
Timber (not pastured)	10	_____	.7	.2	0
Roads and waste		_____	10.2	13.0	6.5
Farmstead		_____	8.3	11.5	6.7
Total acres in farm		_____	246.2	343.6	193.9
% land tillable		_____	86.2	89.6	87.6
% tillable land in high return crops		_____	39.8	38.3	38.2

Table 18. Crop Yields per Acre, 1942

Crop	Your farm	Average of 95 farms	19 most profitable farms	19 least profitable farms
Canning peas, value above seed cost	\$ _____	\$48.70	\$ -	\$ -
Flax, bu.	_____	11.0	12.3	10.1
Barley, bu.	_____	28.1	29.9	25.1
Barley and oats, bu.	_____	44.0	47.3	-
Wheat, bu.	_____	19.2	22.3	18.4
Oats, bu.	_____	49.7	53.1	40.0
Oats and wheat, bu.	_____	39.4	-	-
Rye, bu.	_____	13.3	-	-
Soybeans for grain, bu.	_____	13.3	14.5	10.3
Sweet corn, tons	_____	3.9	-	-
Corn, grain, bu.	_____	56.6	66.9	49.5
Corn and cane silage, tons	_____	10.0	10.1	9.3
Corn and cane fodder, tons	_____	4.0	-	-
Alfalfa hay, tons	_____	2.8	3.1	2.6
Sweet clover hay, tons	_____	2.0	-	-
Soybean hay, tons	_____	1.4	-	-
Mixed legume & non-legume hay, tons	_____	2.1	2.3	2.0
Legumes for seed, lbs.	_____	211.8	-	-
Timothy and/or brome hay, tons	_____	1.5	2.1	-
Other annual hay, tons	_____	.4	-	-
Phalaris hay on non-tillable land, tons	_____	1.4	-	-
Wild hay, tons	_____	.9	1.4	1.1

Table 19. Power and Machinery Expense, 1942

Item	Your farm	Average of 95 farms	19 most profitable farms	19 least profitable farms
Crop acres per farm	_____	187.3	262.7	149.5
Tractor and horse expense per crop acre\$	_____	\$2.34	\$2.00	\$2.56
Crop and general mach.exp.per crop acre	_____	1.41	1.29	1.41
Feed cost per horse*	\$ _____	\$31.17	\$31.24	\$27.81
Number of work horses	_____	3.9	4.7	3.3
Number of colts	_____	.7	1.2	.5

*Two colts equal one horse.

Table 20. Returns from Productive Livestock, 1942

Items	Your farm	Average of 95 farms	19 highest in livestock returns	19 lowest in livestock returns
DAIRY CATTLE--44 farms				
Gross returns per dairy cow	\$ _____	\$111.79	\$146.05	\$72.37
Pounds of butterfat per cow	_____	225	271	154
No. of head of cows	_____	13.4	15.3	12.0
Gross ret. per head other dairy cattle	\$ _____	\$ 47.67	\$ 60.70	\$35.22
Gross ret. per ani. unit all dairy cattle	\$ _____	\$100.80	\$129.68	\$68.30
No. of ani. units all dairy cattle	_____	20.4	25.0	18.3
DUAL PURPOSE CATTLE--31 farms				
Gross ret. per dual purpose cow	\$ _____	\$ 95.97	\$116.06	\$83.52
Pounds of butterfat per cow	_____	186	230	164
No. of head of cows	_____	10.8	8.4	12.8
Gross ret. per head other du.pur.cattle	\$ _____	\$ 49.90	\$ 67.97	\$35.20
Gross ret. per ani. unit all du.pur.cattle	\$ _____	\$ 93.67	\$117.80	\$78.64
No. of animal units all dual pur. cattle	_____	17.7	13.9	20.3
Price rec'd. per lb. butterfat sold as--				
Manufacturing cream (cents)	_____	43.4	43.5	43.3
Retail milk or cream (cents)	_____	62.8	-	-
BEEF-BREEDING HERD--29 farms				
Gross returns per animal unit	\$ _____	\$ 72.29	-	\$38.17
No. beef cows and bulls per herd	_____	11.0	-	20.9
No. animal units per herd	_____	19.3	-	32.6
FEEDER CATTLE--37 farms				
Gross ret. per cwt. produced	\$ _____	\$ 16.83	\$ 22.61	\$13.01
Lbs. of cattle produced	_____	11,335	32,299	6,728
Price rec'd. per cwt. sold	\$ _____	\$ 11.78	\$ 12.56	\$11.44
Price paid per cwt. bought in 1942	\$ _____	\$ 12.17	\$ 12.74	\$14.50
SHEEP - FARM FLOCK--28 farms				
Gross ret. per head*	\$ _____	\$ 10.22	\$ 15.62	\$ 7.94
No. of head of sheep	_____	59.2	38.6	94.7
No. of ewes kept for lambing	_____	37.4	26.8	60.0
% lamb crop	_____	102	114	92
% death loss	_____	7.8	6.3	11.8
Lbs. wool per sheep sheared	_____	8.6	9.6	7.5
Price rec'd. per lb. wool sold (cents)	_____	40.4	41.9	38.8
Price rec'd. per cwt. lambs sold	\$ _____	\$ 12.92	\$ 13.07	\$11.05
SHEEP-FEEDERS--6 farms				
Gross ret. per cwt. produced	\$ _____	\$ 24.70	-	-
Lbs. of sheep produced	_____	11,031	-	-
Price rec'd. per cwt. sold	\$ _____	\$ 12.97	-	-
Price paid per cwt. bought in 1942	\$ _____	\$ 13.16	-	-
HOGS--94 farms				
Gross ret. per cwt. produced	\$ _____	\$ 14.37	\$ 15.20	\$13.87
Lbs. hogs produced	_____	27,059	33,871	21,048
Total no. litters raised	_____	16.1	21.0	13.4
Pigs per litter	_____	6.4	6.6	5.9
Price rec'd. per cwt. sold	\$ _____	\$ 13.10	\$ 13.92	\$12.70
CHICKENS--81 farms				
Gross ret. per hen	\$ _____	\$ 4.22	\$ 4.30	\$ 3.63
No. of hens	_____	216	216	234
Eggs laid per hen	_____	131	132	118
Price rec'd. per doz. eggs sold (cents)	_____	27.7	26.5	27.5
TURKEYS--6 farms				
Gross ret. per cwt. produced	\$ _____	\$ 25.84	-	-
Lbs. turkeys produced	_____	22,103	-	-
Price rec'd. per lb. sold (cents)	_____	30.2	-	-

*Two lambs under 6 months of age considered as one head.

Table 21. Farm Produce Used in House and House Rental, 1942

Items	Quantities				Values			
	Your farm	Average of 95 farms	19 most profitable farms	19 least profitable farms	Your farm	Average of 95 farms	19 most profitable farms	19 least profitable farms
No. of adult Family equivalents) Other*	_____	3.3	3.6	2.9	_____	_____	_____	_____
Whole milk	_____	1141 qts.	1552	987	\$ _____	\$45.34	\$58.35	\$42.02
Skim milk	_____	273 qts.	269	0	_____	1.29	1.19	0
Cream	_____	298 pts.	356	183	_____	41.62	48.05	25.78
Farm made butter	_____	9 lbs.	10	12	_____	3.78	4.15	5.24
Eggs	_____	168 doz.	235	124	_____	42.54	58.41	29.91
Cattle	_____	362 lbs.	573	174	_____	36.52	57.26	15.96
Hogs	_____	596 lbs.	747	501	_____	75.33	93.94	60.99
Sheep	_____	1 lb.	0	0	_____	.09	0	0
Poultry	_____	142 lbs.	172	111	_____	23.59	29.13	18.93
Potatoes	_____	23 bu.	22	18	_____	20.92	21.33	16.99
Vegetables & fruits	_____	_____	_____	_____	_____	56.02	54.92	41.89
Farm fuel	_____	_____	_____	_____	_____	16.58	22.34	12.42
Rental val. of house	_____	_____	_____	_____	_____	211.39	231.97	192.67
Total	_____	_____	_____	_____	_____	\$575.01	\$681.04	\$462.80

Table 22. Household and Personal Expenses for Those Farms Which Kept Complete Accounts of These Expenses, 1942

Items	Your farm	Average of 42 farms	8 most profitable farms	8 least profitable farms
Number of persons - family	_____	4.1	3.9	3.3
Number of persons, (Family adult equivalent (Other*	_____	3.3	3.0	2.8
	_____	.6	1.1	.3
Food and meals bought	\$ _____	\$ 356	\$ 390	\$ 251
Operating and supplies	_____	138	147	111
Clothing and clothing materials	_____	208	262	128
Personal care, personal spending	_____	64	60	32
Furnishings and equipment	_____	156	203	136
Education, recreation and development	_____	148	222	90
Medical care and health insurance	_____	147	149	159
Church, welfare, gifts, and taxes	_____	115	164	64
Personal share of auto expense	_____	74	104	64
Household share of elec. & gas eng. exp.	_____	29	28	25
H.H. & pers.shr.of new auto, gas eng. & motors bot.	_____	26	-	68
Life insurance and other investments	_____	504	850	606
Total household and personal cash expenses	_____	\$1,965	\$2,579	\$1,734
Food furnished by the farm	_____	340	412	217
Fuel furnished by the farm	_____	16	26	14
House rental	_____	186	146	184
Total household and personal expenses	_____	\$2,507	\$3,163	\$2,149

*Hired help or others boarded.

Table 23. Summary of Farm Earnings - Averaged by Counties, 1942

	Brown	Jackson	Kandiyohi	Martin	Murray	Nobles & Stevens & Swift	Watonswan	Yellow Medicine
FARM EXPENSES								
Cattle bought	\$ 195	\$ 908	\$ 357	\$ 404	\$ 3,580	\$ 785	\$ 294	\$ 106
Hogs bought	109	479	307	178	273	253	394	96
Sheep bought	289	492	-	-	2,075	95	-	24
Poultry bought	68	71	58	135	321	80	50	70
Feed	863	1,259	941	975	3,590	531	939	1,005
Other livestock expense	90	125	101	165	135	68	110	73
Crop expense	393	314	276	352	389	230	290	240
Power, machinery and equipment	1,104	1,645	2,140	1,383	1,349	1,339	1,213	999
Custom work hired	139	115	104	210	206	193	187	186
Buildings	249	945	347	605	471	281	263	335
Hired labor	298	221	629	441	519	181	288	261
Taxes, insurance and misc.	251	360	332	293	455	276	354	314
(1) Total purchases	\$4,048	\$6,934	\$5,592	\$5,141	\$13,363	\$4,312	\$4,382	\$3,709
(2) Decrease in capital	-	-	-	-	-	-	-	-
(3) Board to hired labor	125	76	239	181	153	93	122	79
(4) Unpaid family labor	415	495	394	207	404	517	297	280
(5) Interest on farm capital	1,402	1,743	1,140	1,824	1,956	993	1,453	1,090
(6) Total expenses	\$5,990	\$9,248	\$7,365	\$7,353	\$15,876	\$5,915	\$6,254	\$5,158
FARM RECEIPTS								
Cattle sales	1,650	2,201	1,086	1,928	8,287	1,316	1,976	924
Dairy products	1,013	812	1,730	1,250	592	719	692	495
Hogs	2,711	4,435	2,733	4,581	4,197	1,913	3,666	2,684
Sheep	450	604	137	139	1,789	198	109	114
Poultry and eggs	724	917	429	963	2,889	675	561	754
Crop	1,363	1,565	1,600	1,818	1,915	1,330	1,453	2,199
AAA payment	368	444	372	452	593	386	439	407
Miscellaneous cash receipts	238	698	844	344	559	420	596	420
(7) Total farm sales	\$8,517	\$11,676	\$8,931	\$11,475	\$20,821	\$6,957	\$9,492	\$7,997
(8) Increase in capital	771	2,930	2,528	1,685	652	2,102	1,150	1,348
(9) Family living from farm	627	607	542	590	577	494	560	586
(10) Total receipts	\$9,915	\$15,219	\$12,001	\$13,750	\$22,050	\$9,553	\$11,202	\$9,931
(6) Total expenses	5,990	9,248	7,365	7,353	15,876	5,915	6,254	5,158
(11) Operator's labor earnings	3,925	5,971	4,636	6,397	6,174	3,638	4,948	4,773

Table 24. Miscellaneous Information - Averaged by Counties, 1942

	Brown	Jackson	Kandiyoohi	Martin	Nobles	Murray & Stevens	Watson	Watson	Yellow
FARM INVENTORIES (Beginning of year)									
Horses	\$ 360	\$ 290	\$ 315	\$ 344	\$ 363	\$ 323	\$ 339	\$ 339	\$ 219
Productive livestock	3,788	3,979	2,941	4,959	8,925	2,719	4,351	4,351	2,772
Crop, seed and feed	2,942	3,776	2,202	3,913	5,006	2,084	3,530	3,530	2,954
Mach. and equipment	2,456	3,784	3,239	3,237	3,114	1,940	3,021	3,021	2,369
Buildings	6,859	7,823	5,502	7,541	6,194	5,206	5,752	5,752	5,770
Land	11,255	13,744	7,325	15,639	15,198	6,541	11,504	11,504	7,041
Total farm capital	\$27,660	\$33,396	\$21,524	\$35,633	\$38,800	\$18,813	\$28,497	\$28,497	\$21,131
MEAS. OF FARM ORG. AND MANAGEMENT EFFICIENCY									
Crop yields - % of av.	102	106	91	116	89	85	108	108	104
% high return crops	41.7	36.9	36.3	40.3	44.3	35.5	39.7	39.7	40.6
Index ret. from livestock	95	112	101	104	99	91	98	98	102
A. u. livestock per 100 A.	22.8	25.3	17.9	24.4	28.1	13.6	21.8	21.8	16.8
Work units	493	546	620	581	683	493	471	471	409
Work units per worker	247	279	268	286	300	258	257	257	252
Exp. per work unit	\$2.73	\$3.03	\$2.30	\$3.11	\$2.47	\$2.34	\$2.94	\$2.94	\$2.70
Work units on crops	162	171	207	184	216	199	155	155	164
Work units on livestock	320	336	360	371	397	275	287	287	236
Other work units	11	39	53	26	70	19	29	29	9
Total number of workers	2.0	2.0	2.4	2.0	2.3	2.0	1.8	1.8	1.6
Number of family workers	1.5	1.7	1.6	1.2	1.6	1.7	1.3	1.3	1.4
Number of hired workers	.5	.3	.8	.8	.7	.3	.5	.5	.2
DISTRIBUTION OF ACRES IN FARM									
Acres in small grain	63.9	93.4	122.2	70.5	98.2	134.3	74.4	74.4	93.1
Acres in cultivated crops	45.0	61.2	62.9	80.2	84.7	52.6	55.6	55.6	55.3
Tillable acres in hay	27.7	19.2	28.4	19.7	34.6	24.6	29.8	29.8	21.3
Tillable acres in pasture	13.0	21.2	34.1	33.0	35.3	32.0	24.0	24.0	20.6
Tillable land not cropped	6.0	1.8	6.9	0	2.0	8.0	0	0	2.5
Total tillable land	155.6	196.8	254.5	203.4	254.8	251.5	183.8	183.8	192.8
Wild hay and Phalaris	14.0	1.8	4.5	0	2.1	11.3	1.3	1.3	3.2
Non-tillable pasture	19.2	7.6	10.1	1.9	8.7	11.0	6.9	6.9	11.3
Timber not pastured	1.2	.7	2.2	0	0	.2	0	0	2.1
Roads, waste and farmsteads	16.0	19.5	21.8	16.5	19.4	19.3	15.8	15.8	19.7
Total land in farm	206.0	226.4	293.1	221.8	285.0	293.3	207.8	207.8	229.1
% land tillable	77.2	86.3	86.9	91.4	89.2	85.2	88.8	88.8	85.3

Table 24. Miscellaneous Information - Averaged by Counties, 1942 (Continued)

	Brown	Jackson	Kandiyohi	Martin	Murray	Stevens & Swift	Watonwan	Yellow Medicine
CROP YIELDS PER ACRE								
Flax, bu.	12.3	11.0	9.3	12.4	11.1	9.0	11.1	11.7
Barley, bu.	26.5	22.0	37.1	-	17.5	31.8	26.9	32.8
Wheat, bu.	20.6	22.6	17.2	-	-	20.1	19.7	16.7
Oats, bu.	53.4	48.7	44.7	54.3	38.4	48.5	54.1	57.5
Soybeans for grain, bu.	9.8	15.9	12.1	16.4	11.1	14.0	10.8	16.0
Corn grain, bu.	60.6	65.4	45.2	71.0	50.6	35.2	69.7	57.1
Corn silage, tons	11.1	11.5	9.5	10.3	9.5	7.8	10.4	10.1
Alfalfa hay, tons	2.7	3.1	2.4	3.6	2.6	2.1	2.7	2.8
Wild hay, tons	1.0	.5	.7	-	.5	.9	.8	1.3
AMOUNT OF LIVESTOCK								
No. dairy & du. pur. cows	11.9	8.5	17.1	12.4	6.8	11.5	7.8	5.8
No. other da. & du. pur. cattle	12.0	7.5	20.7	11.8	10.7	11.0	10.1	5.2
Head in beef-breeding herd	2.5	10.3	3.6	6.2	11.9	3.9	12.3	14.9
Lbs. feeder cattle produced	2,287	10,150	284	3,392	13,753	2,007	1,647	762
Litters of pigs raised	16.0	19.9	14.0	22.9	16.4	10.2	16.0	11.8
Lbs. hogs produced	23,191	32,344	23,074	39,208	31,233	15,028	28,950	19,588
Head of sheep in farm flocks	28.5	9.0	17.2	10.7	17.9	21.3	20.0	15.4
No. of hens	185	213	123	159	258	129	169	210
Total no. prod. livestock units	41.1	49.7	44.1	51.1	84.6	36.8	41.6	32.6
% of total that are:								
Dairy & du. pur. cows	31.4	19.4	39.7	25.6	12.6	33.1	21.0	20.3
Other da. & du. pur. cattle	16.4	9.6	24.5	13.3	9.0	17.3	14.7	8.0
Beef-breeding cattle	3.6	13.0	4.0	9.1	21.7	6.4	15.5	26.6
Feeder cattle	6.4	18.8	.8	10.6	17.4	11.0	5.2	5.0
Sheep - farm flock	9.3	2.8	4.5	1.7	4.0	6.8	5.3	6.7
Sheep - feeders	2.4	2.5	0	.1	3.3	0	0	0
Hogs	25.5	29.4	23.7	34.2	21.1	21.3	33.5	26.6
Turkeys	.2	0	0	1.9	6.6	.4	0	0
Chickens	4.8	4.5	2.8	3.5	4.3	3.7	4.8	6.8

Table 25. Summary of Farm Earnings by Years*

Items	1940	1941	1942
No. of farms	99	96	95
FARM EXPENSES			
Horses bought	\$ 26	\$ 24	\$ 32
Dairy and dual-purpose cattle bought	64	127	74
Beef cattle bought (including feeders)	258	295	934
Hogs bought	78	146	254
Sheep bought (including feeders)	106	135	489
Poultry bought (including turkeys)	67	83	122
Miscellaneous crop expenses	219	216	317
Feed bought	497	741	1,401
Power machinery (farm share) (new)	304	397	278
Power machinery (farm share) (upkeep)	318	396	474
Custom work hired	124	103	172
Crop and general machinery (new)	266	298	326
Crop and general machinery (upkeep)	50	60	102
Livestock equipment (new)	50	86	98
Livestock equipment (upkeep)	13	18	46
Miscellaneous livestock expense	58	85	109
Buildings and fencing (new)	297	376	311
Buildings and fencing (upkeep)	130	104	135
Hired labor	251	290	348
Taxes	228	230	258
Insurance	9	27	35
General farm	33	37	41
(1) Total farm purchases	\$3,446	\$4,274	\$6,356
(2) Decrease in farm capital	-	-	-
(3) Board furnished hired labor	112	115	129
(4) Interest on farm capital	1,231	1,304	1,488
(5) Unpaid family labor	246	296	381
(6) Total farm expenses (Sum of (1) to (5))	\$5,035	\$5,989	\$8,354
FARM RECEIPTS			
Horses	\$ 37	\$ 37	\$ 31
Dairy and dual-purpose cattle	280	383	534
Dairy products	673	798	859
Beef cattle (including feeders)	543	835	2,260
Hogs	1,075	1,859	3,410
Sheep and wool (including feeders)	204	268	537
Poultry (including turkeys)	273	361	594
Eggs	188	317	532
Corn	302	337	550
Small grain	637	767	828
Other crops	154	180	294
Power machinery sold	115	145	100
Crop and general machinery sold	61	66	65
Miscellaneous	252	128	167
Income from work off the farm	115	124	131
Agricultural Adjustment payments	419	412	443
(7) Total farm sales	\$5,353	\$7,017	\$11,335
(8) Increase in farm capital	1,235	1,772	1,559
(9) Family living from farm	455	482	575
(10) Total farm receipts (7) + (8) + (9)	\$7,043	\$9,271	\$13,469
(6) Total farm expenses	\$5,035	\$5,989	\$ 8,354
(11) Operator's labor earnings (10) - (6)	\$1,988	\$3,282	\$ 5,115

*The financial statements differ in that the unpaid family labor rate was \$45 per month in 1940, \$50 in 1941, and \$60 in 1942; and the board for hired labor was calculated at \$18 per month in 1940, \$20 in 1941, and \$25 in 1942.

Table 26. Summary of Miscellaneous Items by Years

Items	1940	1941	1942
Total farm capital (beginning of year)	\$24,008	\$25,191	\$29,756
<u>MEAS. OF FARM ORG. AND MANAGEMENT EFFICIENCY</u>			
% tillable land in high return crops	34.9	37.6	39.8
Animal units prod. livestock per 100 A.	19.6	21.2	21.8
Work units	490	503	541
Work units per worker	253	256	270
Expenses per work unit	\$1.99	\$2.16	\$2.70
<u>ACRES PER FARM</u>			
Crop acres per farm	225	228	246
	174	171	187
<u>CROP YIELDS PER ACRE</u>			
Flax, bu.	13.6	11.5	11.0
Barley, bu.	41.9	29.9	28.1
Wheat, bu.	26.0	11.9	19.2
Oats, bu.	59.5	28.1	49.7
Corn, grain, bu.	49.5	55.3	56.6
Corn silage, tons	8.9	9.7	10.0
Corn fodder, tons	3.0	3.3	4.0
Alfalfa hay, tons	1.9	2.5	2.8
<u>GROSS RETURNS PER:</u>			
Dairy cow	\$80.75	\$95.59	\$111.79
Dual-purpose cow	60.20	80.27	95.97
Animal unit in beef-breeding herd	57.71	59.53	72.29
100 pounds feeder cattle produced	10.02	12.41	16.83
Head of sheep in farm flock	6.30	8.67	10.22
100 pounds feeder sheep produced	10.65	15.47	24.70
100 pounds hogs produced	5.85	10.66	14.37
Hen	2.32	2.96	4.22
100 pounds turkeys produced	12.55	17.50	25.84
<u>PRICE RECEIVED PER:</u>			
Lb. butterfat sold to creameries	\$.31	\$.37	\$.43
100 lbs. beef cattle sold	7.98	9.57	11.78
100 lbs. feeder sheep sold	9.15	10.41	12.97
100 lbs. hogs sold	5.36	9.06	13.10
Lb. wool sold	.30	.38	.40
Doz. eggs sold	.15	.22	.28
Lb. turkeys sold	.15	.20	.30
<u>MISC. LIVESTOCK INFORMATION</u>			
No. of work horses	3.8	3.6	3.7
No. of colts	.9	.9	.7
No. of dairy or dual-purpose cows	10.4	10.1	9.8
Head of other dairy and dual-purpose cattle	10.3	11.6	10.6
Head of cattle in beef-breeding herd	9.9	8.7	8.4
Pounds feeder cattle produced	1,112	2,670	5,059
Litters of pigs	13.0	15.5	16.0
Pounds of hogs produced	20,544	22,568	26,774
Head of sheep	21.1	20.8	17.6
No. of hens	130	152	188
Pounds of butterfat per dairy cow	246	235	225
Pounds of butterfat per dual-purpose cow	188	199	186
No. of pigs per litter	6.5	6.3	6.4
% lamb crop	103	102	102
Eggs per hen	126	120	131