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UNIVERSITY OF MINNESOTA
Department of Agriculture
and
UNITED STATES DEPARTMENT OF AGRICULTURE
Bureau of Agricultural Economics
and
Farm Security Administration
Cooperating

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Report

of the

FARM MANAGEMENT SERVICE

for

FARMER-BORROWERS

of

Rural Rehabilitation Division
of
The Farm Security Administration

For the Year
1937

Northern Minnesota

Name: _____

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Division of Agricultural Economics
University Farm
St. Paul, Minnesota
July, 1938

Report of the Farm Management Service for Farmer-Borrowers of
the Rural Rehabilitation Division - Northern Minnesota

Prepared by W. P. Ranney and G. A. Pond

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INTRODUCTION

The analysis of the records and preparation of this report were under the direction of W. P. Ranney and G. A. Pond of the Division of Agricultural Economics, University of Minnesota. The records had been kept and closed under the general supervision of Lloyd I. Nelson, state director, and the state personnel of the Rural Rehabilitation Division of the Farm Security Administration.

The Rural Rehabilitation Division has made loans to several thousand farmers in Minnesota, who, on account of the recent depression and droughts, were having difficulty in obtaining and maintaining credit from other sources. Many of the farmers would not have been able to continue farming without the credit secured from Rural Rehabilitation. The latter organization has required their borrowers to keep a system of farm records as a means of helping them to increase their incomes and control their expenses in order that their debts may be liquidated and a fair standard of living may be maintained. To further this purpose the Farm Security Administration arranged to have these records summarized and analyzed in order that they may be made more useful to these farmer-borrowers. The Division of Agricultural Economics and Agricultural Extension of the University of Minnesota and the Bureau of Agricultural Economics at Washington have cooperated in the summarization, analysis, and interpretation of these records, realizing that this is an opportunity to aid directly a large group of worthy farmers, and to obtain valuable information for research, teaching and extension purposes, thereby being enabled to serve many farmers in this state.

About two-thirds of the records included in this report were kept by tenant-operators; only 102 of the operators owned all or part of the farms that they operated. The classification of the farms by counties, type-of-farming areas, and form of tenure is shown in Table 1, page 2.

Note: Completion of this project was made possible by workers supplied on Works Progress Administration Project No. 4841, Sub-Project No. 420B, and Federal Students' Work Project No. 89-70. Sponsor: University of Minnesota

Table 1. Number of Records Included*--Classified by Counties, Type-of-Farming Areas** and Form of Tenure***

Area 5					Area 7				
County	(O)***	(C)	(C.S.)	Totals	County	(O)	(C)	(C.S.)	Totals
Anoka	1	1	3	5	Clay	1	1	8	10
Benton	1	1	1	3	Kittson	2	1	1	4
Chisago	0	1	0	1	Marshall	0	0	2	2
Isanti	1	0	2	3	Norman	2	1	17	20
Kanabec	12	1	9	22	Polk	4	3	12	19
Mille Lacs	4	4	6	14	Wilkin	0	0	8	8
Morrison	1	1	0	2	Totals	9	6	48	63
Pine	0	1	0	1					
Sherburne	0	0	1	1					
Totals	20	10	22	52					

Area 6					Area 8				
County	(O)***	(C)	(C.S.)	Totals	County	(O)	(C)	(C.S.)	Totals
Becker	2	3	7	12	Aitkin	3	3	0	6
Douglas	1	3	8	12	Beltrami	19	1	1	21
Mahnomen	1	0	2	3	Carlton	1	1	0	2
Marshall	1	0	0	1	Cass	1	1	2	4
Otter Tail	2	2	22	26	Clearwater	16	5	5	26
Pennington	0	0	3	3	Hubbard	0	3	1	4
Polk	2	1	4	7	Itasca	10	0	1	11
Red Lake	2	1	2	5	Lake of Woods	2	0	0	2
Roseau	1	0	0	1	St. Louis	8	0	0	8
Wadena	1	7	6	14	Totals	60	14	10	84
Totals	13	17	54	84					

Total,				
N. Minn.	(O)	(C)	(C.S.)	Totals
	102	47	134	283

*The number of records per county is not in proportion to the number of records submitted. There was considerable variation in acceptability of records among the counties.

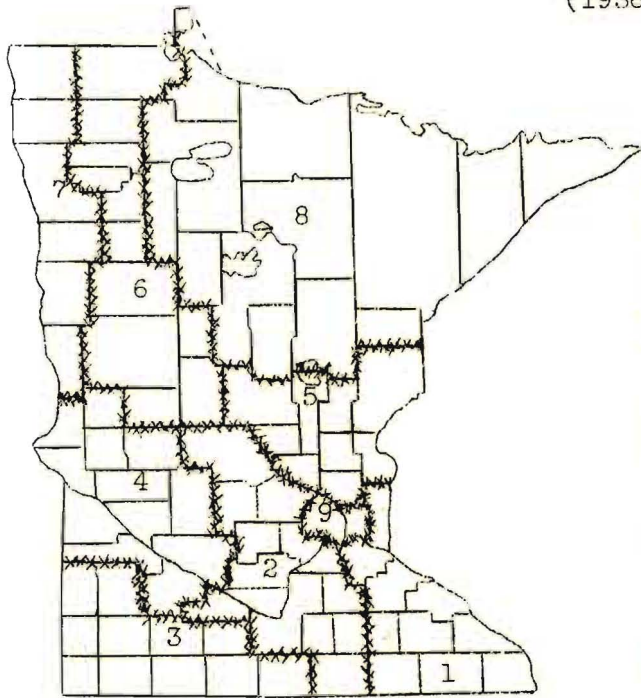
**The type-of-farming areas are shown in the map on page 3.

***(O) designates owner-operated farms; (C), tenant farms with cash leases; and (C.S.), tenant farms with crop share and cash leases.

Although the predominant type of farming is not the same in all of the above counties, the system of farming did not vary greatly among the farms included in this report. Every farmer sold some dairy products, mostly in the form of cream for manufacture into butter. A few farms had special whole milk or retail cream markets. On nearly every farm there were, besides the dairy cows, young dairy cattle, and a few hogs and chickens, and on some farms there were sheep. The proportion of total receipts that came from sales of livestock and livestock products varied from farm to farm.

About 2,000 records were submitted by the borrowers of the Rural Rehabilitation Division in Minnesota. Of this number, 283 are included in this report and 276 in a similar report for southern Minnesota.*** The other records were either too incomplete or did not represent a full year's record because the loans were obtained late in the year 1937. Only full twelve months' records are included in these reports. The majority were started March 1, 1937, and a few on January 1 and February 1.

MAP - TYPE-OF-FARMING AREAS IN MINNESOTA
(1936 Revision)



Legend

1. Southeast dairy and livestock.
2. South Central dairy.
3. Southwest livestock and cash grain.
4. West Central cash grain and livestock.
5. East Central dairy and potatoes.
6. Northwest dairy, livestock, and clover seed.
7. Red River Valley small grain, potatoes and livestock.
8. Northern, cut over, dairy, potatoes and clover seed.
9. Twin Cities suburban truck, dairy and fruit.

FACTORS RELATED TO VARIATIONS IN FINANCIAL PROGRESS

The borrower clients of the Farm Security Administration are interested in making financial progress--to pay off their debts or to accumulate assets for future debt payments while maintaining a fair standard of living. The first payments on the principal of the Farm Security Administration loan was usually due one year after the loan was made. In a number of cases, this would not be until after the end of the account book year. In order to show financial progress or change in the ability of the farmers to pay on debts, the "change in net worth" was calculated. An increase in net worth at least tends to enhance the security back of the loans and vice versa. A change in net worth may occur in any one of ten different ways. The frequencies of occurrence for each one of these ways are shown in Table 2.

Table 2. Relation of Change in Net Worth to Changes in Total Assets and Liabilities

Increase in Net Worth		Decrease in Net Worth	
Nature of change	No. of farms	Nature of change	No. of farms
1. Decrease in total liabilities; total assets remaining the same	1	6. Increase in total liabilities; total assets remaining the same	0
2. Increase in total assets; total liabilities remaining the same	0	7. Decrease in total assets; total liabilities remaining the same	3
3. Decrease in total liabilities and an increase in total assets	101	8. Increase in total liabilities and a decrease in total assets	23
4. Increase in total assets greater than increase in total liabilities	78	9. Decrease in total assets greater than decrease in total liabilities	14
5. Decrease in total liabilities greater than decrease in total assets	23	10. Increase in total liabilities greater than increase in total assets	40
Total	203	Total	80

Variations among farmers in changes in net worth may be due to similar variations in net income*, or in household and personal expenses,** or both. The relationships of these different variations are shown in Table 3. It is quite evident that both lower household and personal expenses and higher incomes are responsible for improvements in net worth among these farmers; but much wider variations in changes in net worth are due to differences among farms in net income than to the variations among families in household and personal expenses.

Table 3. Relationships of Net Income and Household and Personal Expenses to Changes in Net Worth

Household and personal expense groups	Net Income Groups					
	\$799 and less		\$800 to \$1199		\$1200 and more	
	No. of farms	Change in net worth	No. of farms	Change in net worth	No. of farms	Change in net worth
\$599 and less	122	\$ +45	48	+\$363	6	+\$885
\$600 to \$799	23	-183	29	+222	14	+775
\$800 and more	5	-432	12	+47	24	+538

In the lowest net income group 122 families spent less than \$600 and 5 families spent more than \$800 for household and personal purposes; while in the highest net income group only 6 spent less than \$600 and 24 spent more than \$800. This correlation between household and personal expenses and net incomes is shown more clearly on pages 14 to 17. The data on these pages also show that the families with the higher net incomes are not spending all of this income; many of them are paying on debts or are accumulating assets. On the other hand, the families with very low net incomes are losing in net worth even though they are spending a pitifully small amount for household and personal purposes. Until these families are able to earn more, they have a big problem in managing their household and personal budgets; they will be interested in comparing their expenditures against those of other families of similar size and with approximately the same net income, pages 14 to 17.

FACTORS RELATED TO VARIATIONS IN OPERATOR'S LABOR EARNINGS

It is quite apparent that these borrowers are in great need of larger net incomes. Operator's labor earnings*** constitute the greater part of their net incomes. The expenses, receipts and other items which make up the operator's labor earnings are shown on page 12. Each operator's figures are shown in the "your farm" column of his own report. Undoubtedly, he is interested in knowing why his earnings differ from those of other farmers; the reasons may be found in the following analysis.

*Net income is given as item 33 on pages 14 and 15. It is the total earnings including perquisites of the farmer, his family, and his capital plus any personal income, relief, grants, surplus commodities, etc. It is the amount available for household and personal expenditures and for savings.

**Household and personal expenses are given as item 41 on pages 16 and 17. They include cash expenses plus interest and depreciation on personal share of auto, plus house rental and farm perquisites and minus board for hired labor. They do not include life insurance premiums, investments, new houses, new autos or payments on debts.

***Operator's labor earnings is the farmer's return for his services as a laborer and manager. It is computed by first adding together the cash farm receipts, farm perquisites, and any increase in net farm capital; from this total is deducted the sum of cash farm expenses, any decrease in net farm capital, cost of boarding hired labor, a charge for the use of the net farm capital figured at 5 per cent, and a charge for the services of unpaid family labor. (Only the operator's share of income, expenses, and earnings are included.)

There is a wide range in operator's labor earnings among these farms; the highest is \$1,891 and the lowest is a loss of \$1,115--a difference of \$3,006. Some of the causes of the differences in earnings may be beyond the control of the farmer. The farms are located in wide areas of quite diverse characteristics. It is significant, however, that the data in this report indicate that certain factors that are considerably within the farmer's control are closely related to his earnings. The seven factors used in this analysis are as follows:

Table 4. Relation of Butterfat Production per Cow to Operator's Labor Earnings

Pounds of Butterfat per Cow Group	Average	No. of farms	Average operator's labor earnings
149 and less	125	72	\$474
150 to 199	173	112	565
200 and more	238	99	618

High production per cow tends to lower the cost of producing a pound of butterfat. This is important on those farms on which butterfat sales are the major source of income.

Table 5. Relation of Returns from Other Productive Livestock to Operator's Labor Earnings

Per cent Returns were of the Average of all of the 283 Farms (productive livestock other than cows) Group	Average	No. of farms	Average operator's labor earnings
69 and less	45	74	\$416
70 to 129	95	150	581
130 and more	168	59	688

These farms have, in addition to the dairy herd, quite an investment in other classes of productive livestock, such as young cattle, hogs, sheep or poultry. High returns from this livestock usually are accompanied with greater profits from the livestock. This means another addition to the farmer's earnings.

Table 6. Relation of Crop Yields to Operator's Labor Earnings

Per cent Crop Yields were of the Average of all of the 283 Farms Group	Average	No. of farms	Average operator's labor earnings
79 and less	62	89	\$484
80 to 119	99	120	540
120 and more	146	74	684

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 7. Relation of Choice of Crops to Operator's Labor Earnings

Per cent of Tillable Land in Higher Return Crops (See pages 8 and 11) Group	Size of Business			
	Below average of the 283 farms		Above aver. of 283 farms	
	No. of farms	Aver. oper. labor earn.	No. of farms	Aver. oper. labor earn.
14 and less	28	\$401	24	\$568
15 to 29	59	460	52	687
30 and more	81	467	39	845

Additions can be made to earnings by putting a greater percentage of the tillable land into those crops that generally tend to bring in the higher net returns as shown on page 11. The relative returns from the various crops vary among the different parts of this area, the classification shown on page 11 represents a composite selection for the entire area.

Table 8. Relation of Size of Business to Operator's Labor Earnings

Days of Productive Work Group	Average	No. of farms	Average operator's labor earnings
259 and less	219	78	\$338
260 to 399	324	131	560
400 and more	518	74	795

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, provided 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.

Table 9. Relation of Amount of Work Accomplished per Worker to Operator's Labor Earnings

Days of Productive Work per Worker Group	Average	No. of farms	Average operator's labor earnings
189 and less	152	92	\$272
190 to 269	228	108	614
270 and more	351	83	810

More days of productive work accomplished per worker reduce the labor charge per unit of business. Higher labor accomplishment is 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 must 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 live-stock 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 10. Relation of Power and Machinery Expense to Operator's Labor Earnings

Days of Productive Work per \$100 Power and Machinery Expense Group	Average	No. of farms	Average operator's labor earnings
109 and less	90	71	\$513
110 to 179	145	128	560
180 and more	257	84	601

It cannot be said that all farmers would earn more by cutting power and machinery expenses. Some farms are under-equipped. But on a number of farms excessive expenses constitute the main factor causing earnings to be very low.

Some farmers keep their cash outlays for power and equipment low by careful management. Oftentimes necessary repairs and improvements are made by using the available farm labor rather than by hiring the work done. In so far as possible, careful managers do their repairing and overhauling before spring work begins, or on rainy days or in other spare time during the summer. They reduce the number of

horses to the minimum required for efficient operation. In some cases where handled properly, farmers offset some or all of the power and machinery expense by owning part of their equipment cooperatively with neighbors and by using their equipment for outside work.

Table 11. Relation of Farmer's Standing in Seven Factors Discussed in Tables 4 to 10 to Operator's Labor Earnings

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
6 or 7	12	_____	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	\$1112
5	31	_____	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	894
4	55	_____	XXXXXXXXXXXXXXXXXXXX	639
3	76	_____	XXXXXXXXXXXX	508
2	71	_____	XXXXXXXXXXXX	464
1	35	_____	XXXXXXX	297
0	3	_____	xxx	111

The data in Table 11 show 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.

Table 12. Classification of Operator's Labor Earnings and Related Factors by Type-of-Farming Areas and by Form of Tenure

Type of farming area	No. of farms	Operator's labor earnings	Pounds B.F. per cow	% other live-stock returns of aver.	Crop yields % of average	% land in high return crops	Days of Productive Work Total	Per worker	Per \$100 power & machinery expense
V	52	\$510	191	111	109	23	313	220	165
VI	84	614	175	104	93	29	364	257	159
VII	63	688	181	96	106	25	439	290	140
VIII	84	436	181	94	97	35	278	190	187
Form of tenure*									
(O)	102	411	184	98	104	37	300	196	183
(C)	47	591	184	112	91	23	337	242	164
(C.S.)	134	656	183	98	99	27	384	272	150

The higher average earnings for farms in type-of-farming area VII and for farms operated under crop share and cash leases were primarily due to the larger average size of the farm businesses in these two groups. But in general, there were not great differences in earnings between the different type-of-farming areas or between the different form-of-tenure groups. No one area or group had a monopoly on high standing in all of the factors related to earnings.

But there were wide variations in earnings and related factors among the farms within each area and group. Hence, it will be worth-while for each cooperator to study carefully his ranking on pages 8 and 9, and his data on pages 10 to 13, and learn his standing in respect to each of the above factors and the elements of strength and weakness in his farm business.

* (O) designates owner-operated farms; (C), tenant farms with cash leases; and (C.S.) tenant farms with crop share and cash leases.

Factors Related to Variations in Operator's Labor Earnings

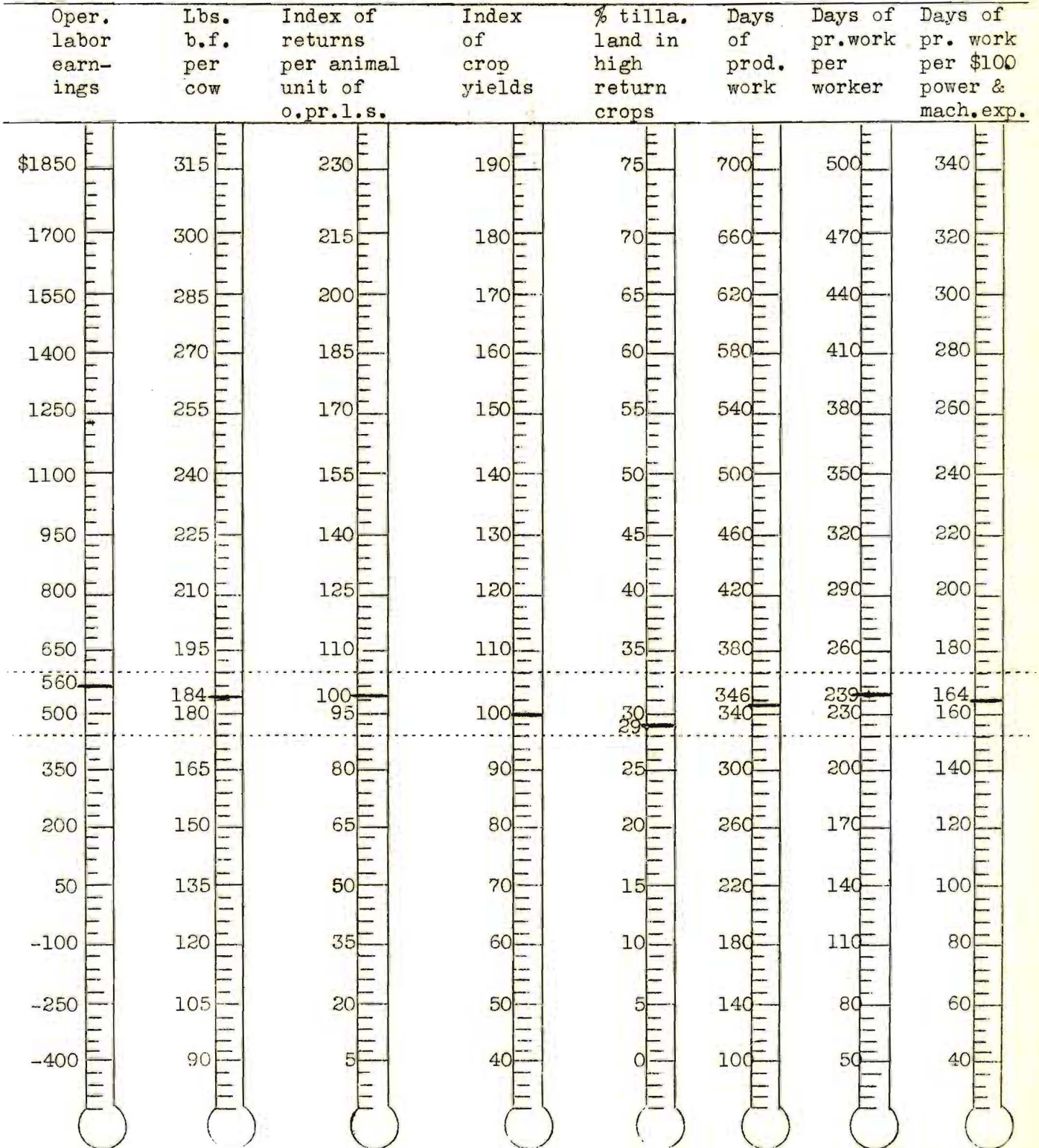
	Your farm	Average of 283 farms	57 most profit- able farms	57 least profit- able farms
Factors used in chart on page 9.				
Operator's Labor Earnings	\$ _____	\$560	\$1157	\$33
Pounds of butterfat per cow	_____	184	189	180
Index returns over feed (other prod. livestock)*	_____	100	112	86
Index of crop yields**	_____	100	114	94
% of tillable land in high return crops***	_____	29	28	31
Size of business - days of productive work****	_____	346	441	285
Days of productive work per worker	_____	239	317	174
Days of prod. work per \$100 power & mach. exp.*****	_____	164	171	146
Summary of livestock, productive work, number of workers and expense				
Gross returns per cow	\$ _____	\$68	\$74	\$64
" " " head of other cattle	_____	20	24	18
" " " cwt. of hogs produced	_____	7.72	7.42	6.37
" " " head of sheep	_____	4.72	1.47	3.28
" " " hen	_____	1.99	2.15	1.83
Animal units of cows	_____	7.0	7.8	6.2
" " " other cattle	_____	3.4	4.2	2.8
" " " hogs	_____	.6	1.0	.3
" " " sheep	_____	.5	.2	.7
" " " hens	_____	.4	.6	.4
" " " productive livestock (total)	_____	11.9	13.8	10.4
Prod. livestock ani. units per 100 A. in farm	_____	8.9	7.7	9.2
Days of prod. work on productive livestock	_____	180	211	154
" " " " " crops	_____	137	196	105
" " " " (miscellaneous)	_____	29	34	26
Total number of workers	_____	1.5	1.4	1.7
" " family workers	_____	1.4	1.3	1.6
" " hired workers	_____	.1	.1	.1
Number of horses	_____	2.8	3.1	2.4
" " colts	_____	.4	.7	.3
Tractor and horse expense per crop acre	\$ _____	\$2.12	\$1.53	\$2.40
Total power expense per day of productive work	_____	.58	.57	.66
Machinery expense per day of productive work	_____	.15	.14	.18
Power & machinery expense per day of prod. work	_____	.73	.71	.84

*Other productive livestock includes young cattle, hogs, sheep and poultry. Returns are calculated by subtracting beginning inventory and purchases from the sum of end inventory, sales of animals and their products, and value of home used animals and animal products. The index is made up of the percentages that the returns for each class of livestock are of the average returns for that class of livestock, weighted by the number of animal units of each class of livestock.

(footnotes continued on page 10.)

Thermometer Chart

Using your figures from page 8, locate your standing with respect to the various measures of farm organization and management efficiency. The averages for 283 farms included in this summary are located between the two dotted lines across the center of this page.



Yields of Crops per Acre

Crop	Your farm	Average of 283 farms	57 most profit-able farms	57 least profit-able farms
Winter wheat, bu.	_____	16.1	11.9	23.3
Spring wheat, bu.	_____	12.8	14.8	12.6
Oats, bu.	_____	26.9	32.9	25.0
Barley, bu.	_____	18.7	24.4	15.9
Rye, bu.	_____	14.1	13.5	16.0
Flax, bu.	_____	5.7	7.9	4.7
Oats and wheat, bu.	_____	28.7	26.0	-
Oats and barley, bu.	_____	14.7	-	1.3
Corn, grain, bu.	_____	27.4	28.8	23.5
Corn, silage, tons	_____	5.3	6.4	6.2
Corn, fodder, tons	_____	2.7	2.8	2.8
Sugar beets, tons	_____	6.0	-	6.0
Potatoes, bu.	_____	89.2	95.0	77.2
Alfalfa hay, tons	_____	1.8	1.9	1.6
Red clover and alsike hay, tons	_____	1.4	.9	-
Sweet clover hay, tons	_____	1.4	1.3	1.3
Misc. legumes and mixtures, hay, tons	_____	1.5	1.6	1.6
Timothy, quack, wild hay on tilla. land, tons	_____	1.2	1.0	1.0
Annual hay (small grain, Sudan g.,millet), tons	_____	1.5	1.7	1.5
Alfalfa seed crop, lbs.	_____	75.2	60.0	129.3
Red clover and alsike seed crops, lbs.	_____	106.5	128.2	124.5
Sweet clover seed crop, lbs.	_____	172.1	254.1	25.1
Timothy seed crop, lbs.	_____	261.8	265.5	260.0
Phalaris hay on non-tillable land, tons	_____	3.8	-	-
Wild hay on non-tillable land, tons	_____	1.2	1.1	1.3

(footnotes continued from page 8.)

An animal unit represents one cow, one bull, two head of young cattle, seven head of sheep, fourteen lambs, five hogs, ten pigs and one hundred hens.

**Given as a percentage of the average.

***Crops are marked on page 11 as (A), (B), (C), (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.

****The total "days of productive work" for any one farm are a measure of size of that farm business. The average number of "ten-hours days" of man labor are as follows per animal unit: cows, 18.5; other cattle, 7.2; hogs, 19.0; sheep, 3.0; hens, 30.0; per acre of crops: alfalfa, 1.75; other hay, 1.0; small grain, 1.3; corn husked, 2.6; corn silage, 3.1; corn fodder, 2.3; potatoes, 6.0; sugar beets, 4.0; garden and truck crops, 10.0.

*****The expense for any one item, as machinery, is calculated by subtracting the sum of end inventory, sales, and hire from the sum of beginning inventory, purchases, repairs, and fuel; to the remainder is added an interest charge of 5 per cent of the investment in that item, respectively; a charge of \$30 per horse and \$15 per colt for feed was included in the total power expenses.

Distribution of Acres in Farm

Crop (A), (B), (C) and (D) refer to ranking used in calculating % of tillable land in high return crops	No. of farms growing crop	Your farm	Average of 283 farms	57 most profit- able farms	57 least profit- able farms
Winter wheat (B)	9	_____	.2	.4	.1
Spring wheat (B)	119	_____	11.1	25.7	5.8
Oats (D)	210	_____	16.8	22.9	9.4
Barley (B)	121	_____	7.7	13.7	6.5
Rye (D)	42	_____	2.3	3.2	.8
Flax (B)	39	_____	2.7	4.9	2.7
Oats and wheat (C)	7	_____	.6	2.2	0
Oats and barley (C)	2	_____	.2	0	.2
Miscellaneous (D)		_____	.8	1.0	.5
Total small grain		_____	42.4	74.0	26.0
Corn, grain (C)	137	_____	6.0	8.0	4.4
Corn, silage (D)	27	_____	1.0	1.9	.4
Corn, fodder (D)	121	_____	3.6	3.7	2.4
Sugar beets (A)	1	_____	-	0	.2
Potatoes (A)	174	_____	1.2	1.5	1.0
Truck crops and garden (A)		_____	.3	.1	.4
Total cultivated crops		_____	12.1	15.2	8.8
Alfalfa (A)	115	_____	5.7	6.0	5.0
Red clover and alsike (B)	5	_____	.2	.2	0
Sweet clover (B)	39	_____	2.3	4.3	1.9
Misc. legumes and mixtures (C)	61	_____	4.4	2.3	7.2
Timothy, quack, and wild hay (D)	56	_____	5.0	4.8	7.7
Annual hay (small gr., Sudan, millet) (D)	87	_____	2.6	1.3	2.7
Alfalfa seed crop (B)	16	_____	.5	.4	.3
Red clover and alsike seed crops (B)	11	_____	.3	.7	.1
Sweet clover seed crop (B)	14	_____	.8	2.1	.2
Timothy seed crop (D)	3	_____	.1	.1	.2
Phalaris (non-tillable)	1	_____	-	0	0
Wild hay (non-tillable)	164	_____	18.4	28.6	13.1
Total hay and grass seed		_____	40.3	50.8	38.4
Total crop acreage		_____	94.8	140.0	73.2
Alfalfa pasture (A)		_____	.1	.2	0
Sweet clover pasture (B)		_____	1.2	3.3	0
Red clover or rape pasture (B)		_____	-	-	0
Misc. legume pasture (C)		_____	.1	.8	0
Other tillable pasture (D)		_____	1.0	3.2	.3
Non-tillable pasture		_____	42.1	32.4	44.2
Total pasture		_____	44.5	39.9	44.5
Tillable land not cropped (D)		_____	6.3	13.3	8.3
Timber not pastured		_____	9.3	5.3	6.9
Roads and waste		_____	8.6	10.9	10.2
Farmstead		_____	3.9	5.0	2.7
Total acres in farm		_____	167.4	214.4	145.8
% of land tillable		_____	49	65	46
% of tillable land in high return crops		_____	29	28	31

Summary of Operator's Labor Earnings

	Your farm	Average of 283 farms	57 most profit- able farms	57 least profit- able farms
<u>Cash Expenses</u>	\$			
Trac., truck, auto, g. eng., elec., (new) (farm share)		\$49	\$139	\$21
" " " " " (exp.) (farm share)		62	98	51
Machinery and equipment (new)		47	70	35
" " " " (expense)		19	26	15
Buildings, fences, tiling (new)		10	16	3
" " " " (expense)		4	2	4
Hired labor wages plus cash cost of board		44	62	43
Feed for livestock		113	96	131
Other expense for livestock		16	20	13
Horses bought		48	47	43
Productive livestock bought		89	77	92
Crop (seed, twine, spray)		80	116	79
Taxes, insurance, rent and interest		96	124	92
General farm		8	9	11
Money loaned out		36	62	42
Payments on debts		222	415	154
(1) Total cash expense		943	1379	829
(2) Decrease in net farm capital		-	-	106
(3) Board for hired labor (home raised products)		6	7	6
(4) Total expense/sum of (1), (2) and (3)/		949	1386	941
<u>Cash Receipts</u>				
Horses		11	24	7
Cows		46	46	37
Dairy products		364	414	292
Other cattle		53	71	40
Hogs		64	113	35
Sheep and wool		20	8	20
Poultry and eggs		78	100	71
Small grain and corn		121	306	60
Hay		15	44	8
Other crops		53	100	35
Miscellaneous		25	66	11
Income from work off the farm		82	97	62
Agricultural Conservation payments		32	63	21
Money borrowed		290	341	324
Payments received on accounts receivable		24	39	19
(5) Total cash receipts		1278	1832	1042
(6) Increase in net farm capital		176	576	-
(7) Farm perquisites*		270	325	238
(8) Total receipts/sum of (5), (6) and (7)/		1724	2733	1280
(4) Total expenses (from above)		949	1386	941
(9) Returns to net farm cap. & family lab. (8) - (4)		775	1347	339
(10) Interest on net farm capital		43	50	45
(11) Family labor earnings (9) - (10)		732	1297	294
(12) Unpaid family labor		172	140	261
(13) Operator's labor earnings (11) - (12)		560	1157	33

*Includes house rental for tenant-operated farms; on owner-operator farms the value of the house is omitted from the farm capital--hence the house rental is not included with the farm perquisites.

Summary of Inventories and Net Worth

	Your farm		Average of 283 farms	57 most profit- able farms	57 least profit- able farms
	Beg. of Year	End of Year			
(End of year)					
<u>Farm Inventories</u>					
Land	\$ _____	\$ _____	\$431	\$469	\$579
Farm buildings	_____	_____	201	219	328
Machinery and equipment	_____	_____	290	383	257
Tractor	_____	_____	54	167	22
Truck and trailer	_____	_____	14	20	15
Auto (farm share)	_____	_____	44	76	29
Gas engine (farm share)	_____	_____	3	4	2
Electric equipment (farm share)	_____	_____	-	1	0
Miscellaneous supplies	_____	_____	4	6	7
Feeds and seeds	_____	_____	172	317	118
Horses and colts	_____	_____	295	340	251
Cows	_____	_____	400	458	344
Other cattle	_____	_____	148	203	110
Hogs	_____	_____	41	62	21
Sheep and wool	_____	_____	24	13	30
Poultry	_____	_____	30	39	25
Accounts and notes receivable	_____	_____	39	77	29
(14) Total farm assets	_____	_____	2190	2854	2167
<u>Farm Liabilities</u>					
Farm Secur. Adm. loans	_____	_____	708	781	675
Other farm liabilities	_____	_____	538	777	658
(15) Total farm liabilities	_____	_____	1246	1558	1333
(16) Net farm capital (14) - (15)	_____	_____	944	1296	834
(17) Personal assets*	_____	_____	520	582	617
(18) Cash on hand and in bank	_____	_____	20	27	5
(19) Personal liabilities	_____	_____	46	52	55
(20) Total assets (14) + (17) + (18)	_____	_____	2730	3463	2789
(21) Total liabilities (15) + (19)	_____	_____	1292	1610	1388
(22) Farmer's net worth (20) - (21)	_____	_____	1438	1853	1401
(23) Change in total assets	_____	_____	254	516	41
(24) Change in total liabilities	_____	_____	68	-73	169
(25) Change in net worth	_____	_____	186	589	-128
% Farm Security Loan is of total liabilities	_____	_____	67	68	60
% total liabilities are of total assets	_____	_____	48	44	52

*Includes value of house on owner-operated farms.

Summary of Farm Perquisites, Miscellaneous Personal Income, and the Family Net Income

	Your farm	Family Type I			
		Net Income Groups			
		\$599 and less	\$600 to 899	\$900 to 1199	\$1200 and more
Number of farms in group:		10	9	6	5
<u>Farm Perquisites</u>					
<u>Quantities</u>					
Whole milk, qts.		287	396	435	362
Skim milk, qts.		176	0	0	0
Cream, pts.		162	119	149	165
Farm-made butter, lbs.		46	34	35	35
Eggs, doz.		48	56	93	84
Poultry, no.		6	12	8	11
Cattle, lbs.		50	72	42	60
Hogs, lbs.		198	247	335	399
Sheep, lbs.		0	0	0	0
Potatoes, bu.		11	20	18	8
Fuel, cds.		15	10	5	9
<u>Values</u>					
Whole milk	\$	\$17	\$25	\$20	\$17
Skim milk		2	0	0	0
Cream		19	18	18	18
Farm-made butter		15	11	12	11
Eggs		8	11	17	13
Poultry		3	7	4	9
Cattle		2	4	3	5
Hogs		16	21	23	34
Sheep		0	0	0	0
Potatoes		5	12	7	4
Vegetables and fruit		24	41	65	27
Fuel		26	21	6	17
(26) House rental (10% of value of house)*		122	68	112	88
(27) Total value		259	239	287	243
<u>Household and personal cash receipts</u>					
Grants and relief		20	19	22	22
Old age assistance and pensions		0	20	0	0
Gifts		2	0	0	4
(28) Misc.(income from invest.,sales of per.assets,etc)		6	0	0	0
(29) Money borrowed (to offset credit purchases)		10	11	0	6
(30) Total household and personal cash receipts		38	50	22	32
(31) Grand total all cash receipts (5) + (30)		1125	1080	1085	2649
(1) Total cash farm expenses		855	790	736	2115
Net cash receipts (31) - (1)**		270	290	349	534
(5) Total cash farm receipts		1087	1030	1063	2617
(6) Increase in net farm capital		20	194	420	848
(32) Grand total all income(5)+(6)+(27)+(30)-(29)		1394	1502	1792	3734
(4) Total farm expense		975	831	737	2120
(33) Net income (32) - (4)***		419	671	1055	1614
Explanation of family types:		Family type I: Husband & wife only(2 in family)			

*House rental is included in this analysis for owner-operated farms as well as tenant-operated farms.

**Net cash receipts plus cash on hand at beginning of year less cash on hand at end of year is the amount of cash available for household and personal expenses (37)+(42). No attempt was made to make the cash balance exactly; all records in which the cash did not balance fairly close were discarded.

Summary of Farm Perquisites, Miscellaneous Personal Income, and the Family Net Income

Family Type II				Your farm	Family Type III				Your farm	Family Type IV			
Net Income Groups					Net Income Groups					Net Income Groups			
\$599 less	\$600 to 899	\$900 to 1199	\$1200 or more		\$599 less	\$600 to 899	\$900 to 1199	\$1200 or more		\$599 less	\$600 to 899	\$900 to 1199	\$1200 or more
20	44	19	14		10	23	15	9		25	32	23	16
782	543	590	556		558	567	709	1160		802	965	751	1078
36	119	38	107		0	64	100	0		191	105	152	0
178	215	245	325		200	287	238	218		173	243	306	314
41	32	47	58		52	56	71	56		85	114	103	96
40	59	57	124		60	78	103	135		64	83	89	123
5	12	13	16		14	13	20	22		6	13	17	18
129	158	61	213		85	143	249	344		185	130	229	278
168	216	313	409		188	228	311	456		285	372	387	343
11	3	0	6		0	0	10	0		4	11	4	0
18	19	18	32		18	26	26	31		29	23	33	32
10	13	9	14		10	17	23	9		13	15	16	5

\$37	\$31	\$31	\$28		\$28	\$27	\$38	\$77		\$33	\$44	\$29	\$54
-	1	-	1		0	-	1	0		2	1	1	0
21	28	31	48		22	39	30	34		19	29	33	45
14	11	17	18		19	18	25	16		25	38	32	31
7	11	11	22		11	15	19	23		10	15	15	24
3	6	5	9		5	7	9	12		3	7	8	9
6	8	4	13		5	7	15	20		13	8	11	14
13	18	27	32		15	19	26	38		25	35	32	28
1	-	0	-		0	0	-	0		-	1	-	0
10	10	10	12		10	16	14	18		14	13	15	17
31	35	49	55		22	40	28	38		40	43	39	33
17	26	21	25		27	32	49	39		26	31	30	15
69	76	59	94		71	63	82	100		57	58	72	116
229	261	265	355		235	283	336	415		267	323	317	386

30	31	34	22		22	49	28	35		39	45	47	14
0	13	0	0		0	0	0	114		4	12	0	0
6	13	-	53		12	15	-	65		40	2	7	27
6	9	8	31		3	3	-	11		7	7	6	8
28	16	5	5		13	6	18	20		24	28	13	47
70	82	47	111		50	73	46	245		114	94	73	96
1253	1149	1320	2126		818	1087	1420	2160		1118	1185	1489	2306
980	801	877	1624		501	741	844	1586		799	760	972	1546
273	348	443	502		317	346	576	574		319	425	517	760

1183	1067	1273	2015		768	1014	1374	1915		1004	1091	1416	2210
51	153	321	652		17	146	241	640		20	92	261	573
1505	1547	1901	3128		1057	1510	1979	3195		1381	1572	2054	3218
1140	829	881	1644		581	771	917	1616		951	805	993	1550
365	718	1020	1484		476	739	1062	1579		430	767	1061	1668

Family Type II: Husband, wife, 1 or 2 children under 16 yrs. & no others. (3 or 4 in family)

Family type III: Husband & wife & 1 to 4 others as follows: 1 or 2 persons 16 yrs. or over & none, 1 or 2 under 16 yrs.; or 3 over & 1 under 16 yrs.; or 1 over & 3 under 16 yrs. (3, 4, 5, or 6 in family)

Family type IV: All other classes except broken families. (5 or more in family)

***Net income is the approximate amount available for household and personal expenses (41), & change in net worth (25). Small amounts of depreciation or sales of personal assets & discrepancies in cash balance prevent (33) from balancing with (41) and (25) exactly.

Summary of Household and Personal Expenses

	No. of adult equivalents per person*	Your farm	Family Type I				
			Net Income Groups				
			\$599 and less	\$600 to 899	\$900 to 1199	\$1200 and more	
Number of members in family							
Men	1.0		1.00	1.00	1.00	1.00	
Women	.8		1.00	1.00	1.00	1.00	
Boys, 16-18 yrs. old	.9		0	0	0	0	
Girls, 16-18 yrs. old	.8		0	0	0	0	
Boys, 13-15 yrs. old	.9		0	0	0	0	
Girls, 13-15 yrs. old	.8		0	0	0	0	
Children, 7-12 yrs. old	.6		0	0	0	0	
Children under 7 yrs. old	.4		0	0	0	0	
Hired help and others boarded							
Men	1.0		.18	.17	0	.01	
Women	.8		.03	.12	0	0	
Total number of persons in family			2.00	2.00	2.00	2.00	
(34) Total adult equiv. members of family			1.80	1.80	1.80	1.80	
Total number of other persons in household			.21	.29	0	.01	
Total adult equiv. other persons in household			.20	.26	0	.01	
Household and personal cash expenses							
(35) Food (for family)**		\$	117	109	114	164	
Operating and supplies			19	22	27	48	
Furnishings and equipment			4	33	26	23	
Clothing and materials			31	29	35	70	
Health			22	15	28	15	
Development and recreation			7	12	22	27	
Personal			20	16	8	21	
Auto expense (personal share)			25	28	29	54	
(36) Housing expense			1	-	-	-	
(37) Total house & personal cash expenses			246	264	289	422	
Non-cash items of expense							
(38) Food furnished by the farm for the family**			97	137	168	133	
Food furnished by the farm for boarders			0	0	0	0	
Fuel furnished by the farm for the family			26	21	6	16	
Interest and depreciation on auto (pers. share)			10	5	8	7	
(39) Rental value of house (26) - (36)			121	68	112	88	
(40) Total house and personal non-cash expenses			254	231	294	244	
(41) Total house and personal exp. (37) + (40)			500	495	583	666	
Total value of food per adult equiv. in family***			119	136	157	165	
Per cent that produced food is of total food****			53	46	40	56	
Other personal cash expenditures							
Life insurance, savings, loans & investments			7	4	15	76	
New auto (personal share)			17	0	8	7	
New housing			0	0	0	0	
Payments on notes and old bills			2	16	6	4	
(42) Total other personal cash exp.			26	20	29	87	
(23) Change in total assets			+137	+299	+281	+592	
(24) Change in total liabilities			+222	+123	-144	-332	
(25) Change in net worth			-85	+176	+425	+924	

*Based on food requirements.

**Food for hired help and boarders was computed at the rate of \$12 per month. The total amount for these purposes was deducted from the food purchases and value of home-produced food in the same proportions as these two sources of food were of the total food consumed.

*** $\frac{(35)+(38)}{(34)}$ divided by (34) The figures on this page are arithmetic averages.

**** $\frac{(38)}{(35)+(38)}$ is of $\frac{(38)}{(35)+(38)}$ The figures on this page are arithmetic averages.

Summary of Household and Personal Expenses (continued)

Family Type II					Family Type III					Family Type IV			
Net Income Groups				Your farm	Net Income Groups				Your farm	Net Income Groups			
\$599 less	\$600 to 899	\$900 to 1199	\$1200 and more		\$599 less	\$600 to 899	\$900 to 1199	\$1200 and more		\$599 less	\$600 to 899	\$900 to 1199	\$1200 and more
1.00	1.00	1.00	1.00		1.57	1.47	1.61	1.78		1.11	1.12	1.19	1.25
1.00	1.00	1.00	1.00		1.10	1.27	1.57	1.11		1.17	1.23	1.17	1.19
0	0	0	0		.30	.37	.13	.44		.03	.19	.26	.34
0	0	0	0		.26	.39	0	.37		.08	.16	.26	.22
.05	.04	.11	.06		.10	.13	.40	.11		.24	.37	.22	.25
.05	.04	.05	0		.20	.13	.13	.44		.12	.25	.56	.56
.20	.39	.32	.21		.30	.26	.47	.56		1.28	1.56	1.57	1.93
1.40	1.03	1.00	1.07		0	.35	.40	.22		2.12	2.07	1.38	1.07
.10	.10	.06	.28		.07	.01	.08	.05		.07	.05	.02	.07
.02	.02	.01	.05		.02	0	.07	.01		.01	.02	.01	.01
3.70	3.50	3.48	3.34		3.83	4.37	4.71	5.03		6.15	6.95	6.61	6.81
2.56	2.52	2.53	2.41		3.26	3.65	3.89	4.23		4.05	4.70	4.70	4.95
.12	.12	.07	.33		.09	.01	.15	.06		.08	.07	.03	.08
.11	.11	.07	.32		.08	.01	.13	.06		.08	.06	.03	.08
\$128	\$145	\$153	\$151	\$	\$162	\$174	\$174	\$236	\$	\$171	\$181	\$210	\$260
29	28	39	49		25	22	24	59		22	26	39	57
31	24	37	41		9	13	34	44		16	33	42	63
39	51	49	69		31	36	73	95		51	55	78	114
22	20	25	18		17	15	25	28		15	25	17	64
11	10	23	26		14	18	28	43		8	13	22	35
13	17	21	27		11	16	24	26		12	23	22	24
29	27	38	49		22	31	40	49		26	29	27	33
1	1	3	1		3	1	2	0		1	1	0	2
303	323	388	431		294	326	424	580		322	386	457	652
133	150	180	201		132	188	200	273		179	230	210	250
3	0	0	15		2	0	0	0		0	0	3	0
17	26	21	25		27	32	49	39		26	31	30	15
9	9	7	37		12	5	15	10		7	11	9	11
68	75	57	93		68	62	80	100		57	58	72	114
230	260	265	371		241	287	344	422		269	330	324	390
533	583	653	802		535	613	768	1002		591	716	781	1042
102	119	134	147		91	103	98	131		89	92	92	107
49	49	47	43		55	48	47	45		49	44	50	51
9	5	5	9		14	2	5	30		10	13	3	13
13	10	11	69		15	6	26	24		10	17	31	54
0	1	0	0		2	0	3	0		2	0	5	0
13	14	15	16		2	6	30	13		16	27	11	22
35	30	31	94		33	14	64	67		38	57	50	89
+138	+200	+334	+603		-95	+206	+339	+326		+44	+127	+406	+664
+284	+61	-25	-87		-10	+91	+47	-217		+204	+62	+136	+44
-146	+139	+349	+690		-85	+115	+292	+543		-160	+65	+270	+620

Some Comparisons With Averages for 1936

	1936	1937
Number of farms	457*	283*
<u>Cash Farm Expenses</u>		
Operating	\$365	\$478
New equipment and purchases of livestock	228	243
Payment on debts	153	222
Total cash farm expenses	746	943
Board for hired labor (home-raised products)	4	6
Total farm expenses	750	949
<u>Cash Farm Receipts</u>		
Livestock and livestock products	486	636
Crops	74	189
Miscellaneous	179	163
Borrowed	227	290
Total cash farm receipts	966	1278
Increase in net farm capital	109	176
Farm perquisites	253	270
Total farm receipts	1328	1724
Total farm expenses (from above)	750	949
Returns to net farm capital and family labor	578	775
5% interest on net farm capital	41	43
Family labor earnings	537	732
Unpaid family labor**	210	172
Operator's labor earnings	\$327	\$560
Number of persons in family	4.8	4.6
Number of adult equivalent persons in family	3.5	3.4
Total assets (end of year)	\$2441	\$2730
Total liabilities (end of year)	1209	1292
Net worth (end of year)	1232	1438
Change in net worth during year	+127	+254
% total liabilities of total assets	52	48
Lbs. of butterfat produced per cow	173	184
Yield of corn per acre, bu.	13.2	27.4
Yield of spring wheat per acre, bu.	5.5	12.8
Yield of oats per acre, bu.	8.5	26.9
Yield of barley per acre, bu.	5.7	18.7
Yield of alfalfa per acre, tons	1.1	1.8
Yield of potatoes per acre, bu.	35.0	89.2
Days of productive work	302	346
Days of productive work per worker	218	239
Food furnished by the farm	\$185	\$189
Fuel furnished by the farm	31	27
Household and personal cash operating expenses	354	376
Other household and personal cash expenses (savings)	31	45
Household and personal cash receipts	113	81
Net income	\$713	\$860

*122 of the farms reporting in 1936 also reported in 1937.

**The charge for unpaid family labor was computed at the rate of \$43 per month in 1936 and \$35 per month in 1937.