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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
1938

Southern Minnesota

Name: _____

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Mimeographed Report No. 109
Division of Agricultural Economics
University Farm
St. Paul, Minnesota
June, 1939

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

Prepared by T. R. Nodland, 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, T. R. Nodland and G. A. Pond of the Division of Agricultural Economics, University of Minnesota. The records have been kept and closed under the general supervision of Lloyd I. Nelson, former state director, and P. S. Harris, acting 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.

The records included in this report were kept mostly by tenant-operators; only 54 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 Number 465-71-3-350, and Federal Students' Work Project No. 78-70. Sponsor: University of Minnesota

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

Area 1						Area 3					
County	(O)***	(C)	(C.S.)	(L.S.)	Totals	County	(O)	(C)	(C.S.)	(L.S.)	Totals
Dodge	1	0	0	0	1	Cottonwood	0	0	1	0	1
Fillmore	2	2	7	3	14	Faribault	0	1	1	0	2
Goodhue	0	1	4	0	5	Jackson	0	0	1	0	1
Houston	0	1	3	0	4	Lincoln	1	0	6	0	7
Mower	0	0	5	0	5	Lyon	1	0	12	0	13
Olmsted	0	0	10	3	13	Martin	0	1	0	0	1
Wabasha	0	1	5	0	6	Murray	0	0	8	0	8
Washington	1	1	4	0	6	Pipestone	1	0	13	0	14
Winona	3	5	5	2	15	Totals	3	2	42	0	47
Totals	7	11	43	8	69						

Area 2						Area 4					
County	(O)***	(C)	(C.S.)	(L.S.)	Totals	County	(O)	(C)	(C.S.)	(L.S.)	Totals
Blue Earth	1	0	3	2	6	Chippewa	0	0	4	0	4
Brown	0	1	0	0	1	Grant	2	1	11	0	14
Carver	2	3	0	0	5	Kandiyohi	5	1	3	0	9
Freeborn	0	1	1	0	2	Lac qui Parle	0	0	1	0	1
Le Sueur	1	0	0	0	1	Pope	1	2	17	0	20
McLeod	1	3	0	0	4	Redwood	0	0	12	1	13
Meeker	17	5	3	0	25	Renville	2	0	11	0	13
Nicollet	0	1	0	0	1	Yel. Medicine	0	0	7	0	7
Rice	1	1	0	0	2	Totals	10	4	66	1	81
Scott	0	1	0	0	1						
Stearns	6	7	38	0	51	Area 9					
Steele	0	0	0	1	1	Hennepin	3	3	1	0	7
Waseca	0	0	0	1	1	Total,					
Wright	2	2	3	0	7	S. Minn.	54	45	200	13	312
Totals	31	25	48	4	108						

*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.

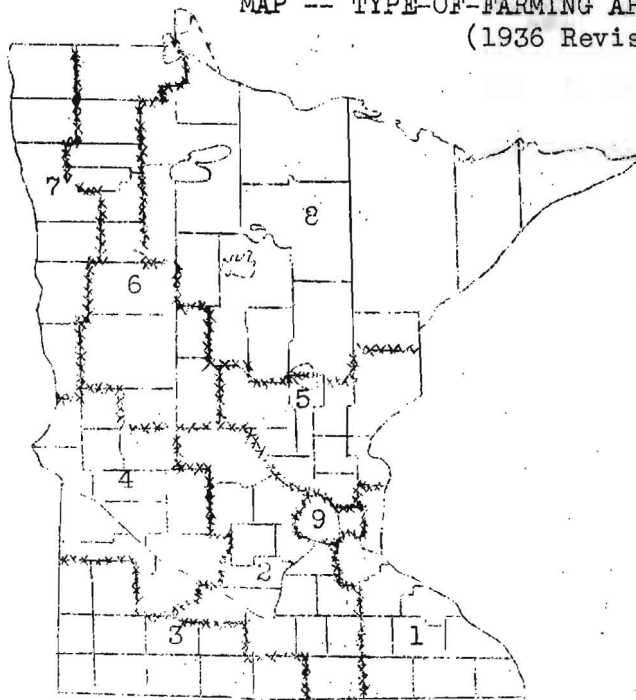
*** (O) designates owner-operated farms; (C), tenant farms with cash leases; (C.S.), tenant farms with crop share and cash leases; and (L.S.), tenant farms with livestock share leases.

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 and turkeys. 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, 312 are included in this report and 305 in a similar report for northern 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 1938. Only full twelve months' records are included in these reports. The majority were started March 1, 1938, and a few on January 1 and February 1.

**** Mimeographed Report No. 110.

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



Legend

1. Southeast dairy and livestock.
2. South Central dairy and livestock.
3. Southwest livestock and cash grain.
4. West Central livestock and cash grain.
5. East Central dairy and potatoes.
6. Northwest dairy and livestock.
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	0	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	1
3. Decrease in total liabilities and an increase in total assets	140	8. Increase in total liabilities and a decrease in total assets	16
4. Increase in total assets greater than increase in total liabilities	83	9. Decrease in total assets greater than decrease in total liabilities	11
5. Decrease in total liabilities greater than decrease in total assets	42	10. Increase in total liabilities greater than increase in total assets	19
	<u>265</u>		<u>47</u>

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	54	\$+74	20	\$+422	4	\$+899
\$600 to \$799	29	+41	65	+268	32	+692
\$800 and more	10	-174	37	+123	61	+545

In the lowest net income group 54 families spent less than \$600 and 10 families spent more than \$800 for household and personal purposes; while in the highest net income group only 4 spent less than \$600 and 61 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.

There is a wide range in operator's labor earnings among these farms; the highest is \$2,006 and the lowest is a loss of \$201--a difference of \$2,207. 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

Group	Pounds of Butterfat per Cow Average	No. of farms	Average operator's labor earnings
129 and less	108	62	\$614
130 to 199	163	169	751
200 and more	242	81	896

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

Group	Per cent Returns were of the Average of all of the 312 farms (productive livestock other than cows) Average	No. of farms	Average operator's labor earnings
79 and less	64	30	\$502
80 to 119	98	149	783
120 and more	138	83	974

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

Group	Per cent Crop Yields were of the Average of all of the 312 Farms Average	No. of farms	Average Operator's labor earnings
79 and less	66	77	\$518
80 to 119	100	161	804
120 and more	135	74	922

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

Group	Per cent of Tillable Land in High Return Crops (See pages 8 and 11) Average	No. of farms	Average operator's labor earnings
24 and less	18	81	\$652
25 to 34	29	127	792
35 and more	43	104	810

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.

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
279 and less	243	60	\$544
280 to 419	344	173	724
420 and more	497	74	1029

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
199 and less	172	81	\$471
200 to 279	244	143	749
280 and more	344	88	1049

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 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 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
89 and less	75	66	\$683
90 to 139	112	146	760
140 and above	189	98	818

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 machinery 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
7	4	_____	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	\$1502
6	22	_____	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	1230
5	39	_____	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	985
4	70	_____	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	859
3	58	_____	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	756
2	61	_____	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	560
1	51	_____	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	472
0	7	_____	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	400

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 and machinery expense
I	69	\$699	164	93	89	29	349	253	146
II	108	682	172	96	95	33	353	234	131
III	47	926	167	115	107	34	413	297	115
IV	81	879	182	106	113	28	353	261	113
IX	7	152	198	60	86	44	335	192	133
Form of tenure*									
(O)	54	631	168	96	102	34	346	234	144
(C)	45	726	179	99	102	36	353	247	137
(C.S.)	200	819	173	102	98	29	365	260	121
(L.S.)	13	540	162	86	112	28	378	264	123

There were not sufficient records from type-of-farming area IX to permit significance being attached to the averages shown for that area in Table 12. In general, there were no 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; (C.S.), tenant farms with crop share and cash leases; and (L.S.), tenant farms with livestock share leases.

Factors Related to Variations in Operator's Labor Earnings

Factors used in chart on page 9.	Your farm	Average of 312 farms	62 most profitable farms	62 least profitable farms
Operator's Labor Earnings	\$ _____	\$761	\$1352	\$235
Pounds of butterfat per cow	_____	173	190	155
Index returns over feed (other prod.livestock)*	_____	100	116	82
Index of crop yields**	_____	100	120	90
% of tillable land in high return crops***	_____	31	32	31
Size of business - days of productive work****	_____	361	444	316
Days of productive work per worker	_____	254	319	204
Days of prod. work per \$100 power & mach.exp.*****	_____	128	127	118

Summary of livestock, productive work, number of workers and expense

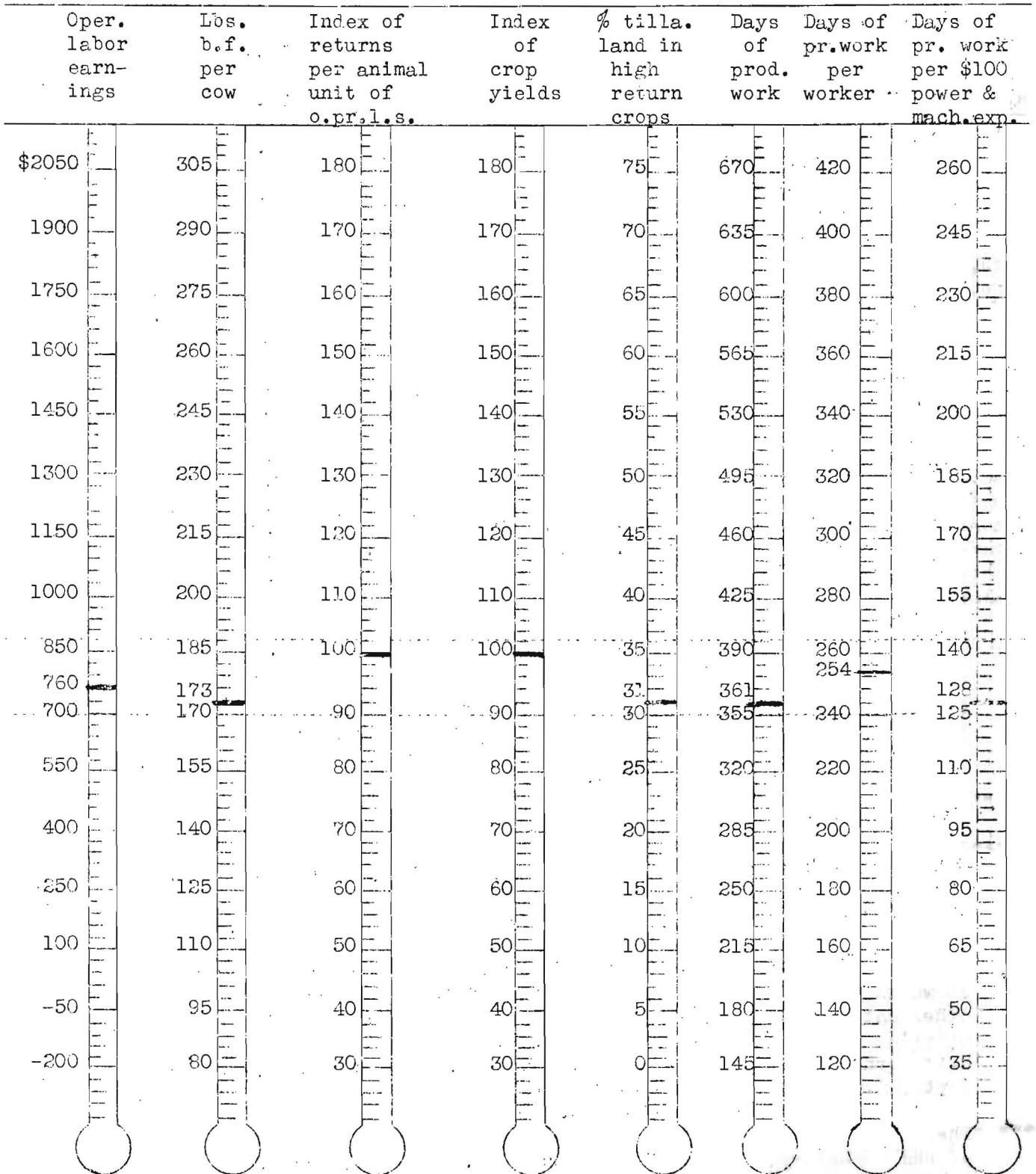
Gross returns per cow	\$ _____	\$54	\$60	\$45
" " " head of other cattle	_____	26	30	20
" " " cwt. of hogs produced	_____	6.75	7.52	5.96
" " " head of sheep	_____	3.61	4.72	1.49
" " " hen	_____	1.75	1.97	1.49
" " " cwt. of turkeys produced	_____	17.32	16.29	18.54
Animal units of cows	_____	8.3	9.2	8.1
" " " other cattle	_____	4.3	4.6	4.2
" " " hogs	_____	2.8	4.0	2.1
" " " sheep	_____	.4	.6	.3
" " " hens	_____	.8	1.0	.8
" " " turkeys	_____	-	.1	-
" " " productive livestock (total)	_____	16.6	19.5	15.5
Prod. livestock ani. units per 100 A. in farm	_____	11.7	11.4	13.0
Days of prod. work on productive livestock	_____	212	247	200
" " " " " crops	_____	137	184	108
" " " " " (miscellaneous)	_____	12	14	8
Total number of workers	_____	1.5	1.4	1.6
" " " family workers	_____	1.4	1.3	1.5
" " " hired workers	_____	.1	.1	.1
Number of horses	_____	3.4	3.5	3.2
" " colts	_____	.5	.7	.5
Tractor and horse expense per crop acre	\$ _____	\$1.86	\$1.70	\$2.27
Total power expense per day of productive work	_____	.69	.67	.76
Machinery expense per day of productive work	_____	.21	.21	.23
Power and machinery expense per day of prod. work	_____	.90	.88	.99

*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 312 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 312 farms	62 most profitable farms	62 least profitable farms
Winter wheat, bu.	_____	12.6	9.0	13.7
Spring wheat, bu.	_____	13.5	15.2	12.5
Oats, bu.	_____	32.5	42.1	25.9
Barley, bu.	_____	23.5	28.9	18.6
Rye, bu.	_____	16.6	16.6	16.6
Flax, bu.	_____	11.6	14.3	7.8
Oats and wheat, bu.	_____	28.8	36.6	17.3
Oats and barley, bu.	_____	24.4	35.8	24.7
Flax and wheat, bu.	_____	9.3	-	9.3
Canning peas, value above seed cost	_____	\$8.00	-	-
Corn, grain, bu.	_____	31.9	37.8	29.8
Corn, silage, tons	_____	6.6	5.4	8.2
Corn, fodder, tons	_____	2.8	2.6	3.3
Sweet corn, tons	_____	2.4	2.5	2.3
Sugar beets, tons	_____	12.5	14.3	-
Potatoes, bu.	_____	54.7	75.3	54.1
Alfalfa hay, tons	_____	2.1	2.0	2.4
Red clover hay, tons	_____	2.2	1.3	2.3
Misc. legumes and mixtures, hay, tons	_____	1.4	1.8	1.3
Timothy, quack, wild hay on tillable land, tons	_____	1.2	1.2	1.3
Annual hay (small grain, Sudan g., millet), tons	_____	1.6	1.9	1.6
Legume seed crops, lbs.	_____	63.5	85.7	-
Timothy seed crop, lbs.	_____	132.0	150.0	-
Phalaris hay on non-tillable land, tons	_____	3.3	5.0	-
Wild hay on non-tillable land, tons	_____	1.1	1.1	1.1

(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, one hundred hens, and 1400 pounds of turkeys produced.

**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-hour days" of man labor (as shown in Minn. Tech. Bul. 44) are as follows per animal unit: cows, 16.6; other cattle, 6.0; hogs, 11.0; sheep, 2.7; hens, 20.1; per acre of crops: alfalfa, 1.5; other hay, .6; small grain, 1.0; canning peas, 2.5; corn husked, 2.1; corn silage, 2.6; corn fodder, 1.3; sweet corn, 3.0; potatoes, 6.4; sugar beets, 4.0; garden and truck crops, 6.4.

*****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, respectfully; a charge of \$24 per horse and \$12 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 312 farms	62 most profit- able farms	62 least profit- able farms
Winter wheat (B)	28	_____	.7	.2	1.0
Spring wheat (C)	174	_____	10.9	16.7	7.8
Oats (D)	289	_____	24.2	28.6	18.4
Barley (B)	195	_____	10.8	16.1	7.2
Rye (D)	56	_____	2.5	2.1	3.6
Flax (B)	46	_____	2.0	4.5	1.7
Oats and wheat (C)	14	_____	.6	1.1	.2
Oats and barley (C)	12	_____	1.0	.3	1.2
Flax and wheat (B)	1	_____	.1	.0	.4
Canning peas (A)	1	_____	-	.0	.0
Soybeans (C)	0	_____	.0	.0	.0
Miscellaneous (D)		_____	.2	.1	.2
Total small grain, peas & beans			53.0	69.7	41.7
Corn, grain (B)	301	_____	25.9	38.2	17.1
Corn, silage (C)	37	_____	1.1	1.5	.8
Corn, fodder (D)	95	_____	2.1	3.7	2.4
Sweet corn (B)	10	_____	.2	.1	.3
Sugar beets (A)	2	_____	.2	.7	.0
Potatoes (A)	97	_____	.4	.2	.5
Truck crops and garden (A)		_____	.3	.2	.5
Total cultivated crops			30.2	44.6	21.6
Alfalfa (A)	145	_____	4.3	5.8	4.8
Red clover (B)	11	_____	.4	.3	.1
Misc. legumes and mixtures (C)	90	_____	3.5	2.0	3.2
Timothy, quack, and wild (D)	34	_____	1.8	2.3	1.4
Annual (small grain, Sudan, millet) (D)	87	_____	2.1	2.3	1.9
Legume seed crops (B)	7	_____	.3	.1	.0
Timothy seed crop (D)	3	_____	.1	.2	.0
Phalaris (non-tillable)	3	_____	-	.1	.0
Wild hay (non-tillable)	174	_____	10.2	7.9	9.7
Total hay and grass seed			22.7	21.0	21.1
Total crop acreage			105.9	135.3	84.4
Alfalfa pasture (A)		_____	.2	.2	.1
Sweet clover pasture (B)		_____	1.5	2.7	.9
Red clover or rape pasture (B)		_____	-	.1	.0
Misc. legume pasture (C)		_____	.5	.5	1.2
Other tillable pasture (D)		_____	1.6	1.8	1.9
Non-tillable pasture		_____	28.8	24.0	27.9
Total pasture			32.6	29.3	32.0
Tillable land not cropped (D)		_____	3.4	5.1	1.8
Timber not pastured		_____	3.9	1.0	4.0
Roads and waste		_____	7.8	6.6	8.7
Farmstead		_____	4.7	5.7	4.1
Total acres in farm			158.3	183.0	135.0
% of land tillable			65.4	76.4	60.0
% of tillable land in high return crops			31.0	32.2	31.2

Summary of Operator's Labor Earnings

	Your farm	Average of 312 farms	62 most profit-able farms	62 least profit-able farms
<u>Cash Expenses</u>				
Trac., truck, auto, g. eng., elec., (new) (farm share)	\$	\$50	\$73	\$36
" " " " " (exp.) (farm share)		104	190	77
Machinery and equipment (new)		58	90	42
" " " " (expense)		23	35	20
Land, buildings, fences, tiling (new)		19	8	75
" " " " (expense)		5	8	6
Hired labor wages plus cash cost of board		47	82	30
Feed for livestock		83	128	80
Other expense for livestock		30	35	32
Horses bought		36	36	34
Productive livestock bought		83	108	82
Crop (seed, twine, spray)		87	155	67
Taxes, insurance, rent and interest		187	231	190
General farm		7	12	5
Money loaned out		29	62	19
Payments on debts		347	552	319
(1) Total cash expense		1195	1805	1114
(2) Decrease in net farm capital		-	-	28
(3) Board for hired labor (home raised products)		6	10	3
(4) Total expense/sum of (1), (2) and (3)/		1201	1815	1145
<u>Cash Receipts</u>				
Horses		16	33	14
Cows		49	57	58
Dairy products		339	405	301
Other cattle		95	136	69
Hogs		316	532	200
Sheep and wool		11	20	10
Poultry and eggs		126	200	107
Small grain and corn		143	286	91
Hay		3	2	5
Other crops		23	47	18
Miscellaneous		32	49	27
Income from work off the farm		34	41	24
Agricultural Conservation payments		46	76	38
Money borrowed		338	491	419
Payments received on accounts receivable		38	57	29
(5) Total cash receipts		1609	2432	1410
(6) Increase in net farm capital		256	562	-
(7) Farm perquisites*		305	361	247
(8) Total receipts/sum of (5), (6), and (7)/		2170	3355	1657
(4) Total expenses (from above)		1201	1815	1145
(9) Returns to net farm cap. & family lab. (8) - (4)		969	1540	512
(10) Interest on net farm capital		49	66	44
(11) Family labor earnings (9) - (10)		920	1474	468
(12) Unpaid family labor		159	122	233
(13) Operator's labor earnings (11) - (12)		761	1352	235

*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 312 farms	62 most profit- able farms	62 least profit- able farms
	Beg. of Year	End of Year			
<u>Farm Inventories</u>					
Land	\$	\$	\$569	\$766	\$839
Farm buildings			373	430	483
Machinery and equipment			406	538	377
Tractor			137	265	92
Trucks			4	3	11
Auto (farm share)			63	95	54
Gas engine (farm share)			8	5	7
Electric equipment (farm share)			2	4	3
Miscellaneous supplies			5	8	3
Feeds and seeds			300	477	203
Horses and colts			346	373	315
Cows			504	589	466
Other cattle			213	260	187
Hogs			178	266	184
Sheep and wool			17	30	12
Poultry			58	78	47
Accounts and notes receivable			43	75	29
(14) Total farm assets			3226	4262	3252
<u>Farm Liabilities</u>					
Farm Security Adm. loans			1527	1932	1600
Other farm liabilities			692	789	953
(15) Total farm liabilities			2219	2721	2553
(16) Net farm capital (14) - (15)			1007	1541	699
(17) Personal assets*			784	887	810
(18) Cash on hand and in bank			39	51	31
(19) Personal liabilities			59	75	52
(20) Total assets (14) + (17) + (18)			4049	5200	4093
(21) Total liabilities (15) + (19)			2278	2796	2605
(22) Farmer's net worth (20) - (21)			1771	2404	1488
(23) Change in total assets			288	583	104
(24) Change in total liabilities			-8	-72	108
(25) Change in net worth			296	655	-4
% Farm Security Loan is of total liabilities			74	76	67
% total liabilities are of total assets			53	49	65

*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:		5	13	9	11
<u>Farm Perquisites</u>					
<u>Quantities</u>					
Whole milk, qts.		796	277	346	534
Skim milk, qts.		0	183	0	65
Cream, pts.		184	193	137	251
Farm-made butter, lbs.		0	43	31	50
Eggs, doz.		42	74	73	96
Poultry, no.		17	21	21	10
Cattle, lbs.		292	162	11	91
Hogs, lbs.		80	183	316	364
Sheep, lbs.		0	0	0	0
Potatoes, bu.		19	15	12	12
Fuel, cds.		3	5	12	8
<u>Values</u>					
Whole milk	\$	\$70	\$14	\$21	\$26
Skim milk		0	-	0	-
Cream		19	20	17	30
Farm-made butter		0	11	9	15
Eggs		7	12	12	15
Poultry		7	9	9	8
Cattle		15	10	2	5
Hogs		6	14	25	27
Sheep		0	0	0	0
Potatoes		12	10	8	8
Vegetables and fruit		16	20	17	26
Fuel		16	19	29	27
(26) House rental (10% of value of house)*		77	95	142	146
(27) Total value		245	234	291	333
<u>Household and personal cash receipts</u>					
Grants and relief		15	10	3	15
Old age assistance and pensions		0	0	0	5
Gifts		0	3	0	2
(28) Misc.(inc.from invest., sales of per.assets, etc.)		0	9	0	6
(29) Money borrowed (to offset credit purchases)		4	33	17	37
(30) Total household and personal cash receipts		19	55	20	65
(31) Grand total all cash receipts (5) + (30)		833	1363	1937	2018
(1) Total cash farm expenses		583	949	1718	1415
Net cash receipts (31) - (1)**		250	414	219	603
(5) Total cash farm receipts		814	1307	1916	1954
(6) Increase in net farm capital		79	142	505	490
(32) Grand total all income (5)+(6)+(27)+(30)-(29)		1153	1705	2715	2805
(4) Total farm expense		662	955	1729	1446
(33) Net income (32) - (4)***		491	750	986	1359
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 and less	\$600 to 899	\$900 to 1199	\$1200 or more		\$599 and less	\$600 to 899	\$900 to 1199	\$1200 or more		\$599 and less	\$600 to 899	\$900 to 1199	\$1200 or more
17	30	26	21		3	18	13	26		10	25	45	38
552	576	690	631		508	559	570	891		831	958	1090	1074
120	24	14	103		0	0	61	0		434	61	214	310
138	141	220	234		60	134	220	160		179	207	250	271
13	12	15	27		0	43	49	35		16	18	36	61
45	65	100	107		89	71	108	103		77	106	124	147
20	17	25	29		16	19	19	31		29	26	28	35
94	50	98	143		0	44	229	244		60	198	261	202
284	402	460	378		133	455	379	396		421	470	510	571
0	0	0	6		0	0	5	0		0	17	0	3
16	13	15	16		22	18	27	21		21	21	28	26
6	9	10	6		5	11	8	8		6	9	9	8
\$29	\$26	\$37	\$30	\$	\$29	\$27	\$31	\$54	\$	\$31	\$43	\$48	\$60
2	-	1	1		0	0	-	0		2	-	2	2
16	18	29	28		5	18	28	20		19	21	28	31
3	3	4	7		0	12	15	10		5	5	10	13
8	11	16	17		17	11	19	18		13	17	21	25
8	7	9	15		8	7	10	14		12	11	10	13
6	3	6	9		0	2	12	17		4	11	16	13
20	29	34	31		10	33	28	31		32	36	37	44
0	0	0	-		0	0	-	0		0	1	0	-
10	8	9	9		14	11	14	12		12	11	15	15
24	27	31	37		47	31	45	34		33	32	46	40
20	28	33	22		6	36	27	30		21	30	33	25
83	115	141	156		49	108	118	151		91	79	112	167
229	275	350	362		185	296	347	391		275	297	378	446
46	19	14	15		50	7	33	22		60	34	29	21
0	0	0	0		0	12	0	0		0	0	0	0
1	2	2	6		0	8	8	24		1	7	4	26
1	7	12	11		0	12	19	29		0	5	6	12
30	10	28	20		66	9	10	19		20	36	18	36
78	38	56	52		116	48	70	94		81	82	57	103
1301	1326	1602	2514		1056	1286	1459	2038		1284	1459	1374	2385
969	940	1135	1884		769	911	1020	1436		950	999	921	1675
332	386	467	630		287	375	439	602		334	460	453	710
1223	1287	1547	2463		940	1239	1388	1944		1203	1377	1317	2282
16	130	255	590		39	154	254	505		59	81	229	551
1516	1720	2179	3447		1214	1728	2049	2915		1598	1801	1963	3346
1110	963	1153	1903		869	944	1023	1444		1120	1056	936	1714
406	757	1026	1544		345	784	1026	1471		478	745	1027	1632

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 expense (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) & (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	_____	.04	.15	.22	.05			
Women	.8	_____	0	0	0	0			
<hr/>									
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			.04	.15	.22	.05			
Total adult equiv. other persons in household			.04	.15	.22	.05			
<hr/>									
Household and personal cash expenses									
(35) Food (for family)**		\$ _____	\$89	\$115	\$143	\$189			
Operating and supplies		_____	18	36	34	27			
Furnishings and equipment		_____	13	28	10	49			
Clothing and materials		_____	16	50	43	60			
Health		_____	0	26	32	44			
Development and recreation		_____	9	24	30	33			
Personal		_____	21	18	25	22			
Auto expense (personal share)		_____	20	43	46	43			
(36) Housing expense		_____	0	0	0	0			
(37) Total house & personal cash expenses		_____	186	340	363	467			
<hr/>									
Non-cash items of expense									
(38) Food furnished by the farm for the family**		_____	150	107	108	156			
Food furnished by the farm for boarders		_____	0	12	0	0			
Fuel furnished by the farm for the family		_____	15	19	29	27			
Interest & depreciation on auto (pers. share)		_____	7	13	9	23			
(39) Rental value of house (26) - (36)		_____	77	95	142	147			
(40) Total house and personal non-cash expenses		_____	249	246	288	353			
(41) Total house and personal exp. (37) + (40)		_____	435	586	651	820			
<hr/>									
Total value of food per adult equiv. in family***		_____	133	124	139	192			
Per cent that purchased food is of tot. food****		_____	40	51	57	56			
<hr/>									
Other personal cash expenditures									
Life insurance, savings, loans & invtments.		_____	1	12	18	5			
New auto (personal share)		_____	0	15	3	20			
New housing		_____	0	0	5	0			
Payments on notes and old bills		_____	4	24	13	31			
(42) Total other personal cash exp.		_____	5	51	39	56			
(23) Change in total assets		_____	+72	+103	+224	+458			
(24) Change in total liabilities		_____	-23	-61	-117	-60			
(25) Change in net worth		_____	+95	+164	+341	+518			

*Based on food requirements

**Food for hired help and boarders was computed at the rate of \$12.00 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.

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

**** $\frac{(35)}{(35) + (38)}$ 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									Net Income Groups				Net Income Groups			
\$599	\$600	\$900	\$1200	Your	\$599	\$600	\$900	\$1200	Your	\$599	\$600	\$900	\$1200			
and	to	to	and	farm	and	to	to	and	farm	and	to	to	and			
less	899	1199	more		less	899	1199	more		less	899	1199	more			
1.00	1.00	1.00	1.00	_____	1.00	1.39	1.28	1.37	_____	1.13	1.04	1.09	1.21			
1.00	1.00	1.00	1.00	_____	1.27	1.25	1.08	1.27	_____	1.00	1.03	1.11	1.14			
0	0	0	0	_____	.67	.50	.31	.33	_____	.18	.06	.20	.26			
0	0	0	.01	_____	0	.23	.35	.34	_____	.25	0	.26	.24			
0	.09	.12	.10	_____	0	.22	.31	.12	_____	.20	.08	.40	.31			
0	.03	.04	0	_____	0	.17	.15	.35	_____	.20	.24	.20	.39			
.35	.37	.42	.38	_____	.33	.17	.30	.50	_____	1.50	2.04	1.78	1.63			
1.12	1.10	1.00	1.00	_____	0	.53	.30	.27	_____	1.50	1.92	1.62	2.26			
.08	.05	.15	.20	_____	.03	.16	0	.10	_____	.06	.02	.04	.11			
.01	.03	.02	.05	_____	0	0	0	.02	_____	.01	.03	.02	.04			
3.47	3.59	3.58	3.49	_____	3.27	4.46	4.08	4.55	_____	5.96	6.41	6.66	7.42			
2.46	2.56	2.59	2.52	_____	2.80	3.68	3.40	3.75	_____	4.13	4.17	4.60	4.99			
.09	.08	.17	.25	_____	.03	.16	0	.12	_____	.07	.05	.06	.15			
.09	.07	.17	.20	_____	.03	.16	0	.12	_____	.07	.04	.06	.14			
\$131	\$148	\$180	\$169	\$	\$163	\$148	\$165	\$209	\$	\$160	\$163	\$186	\$213			
30	37	32	60	_____	15	28	46	41	_____	42	39	41	51			
10	20	33	49	_____	1	11	8	26	_____	6	13	15	27			
47	46	56	78	_____	18	53	53	86	_____	51	56	61	92			
52	29	32	33	_____	17	17	14	31	_____	34	46	21	58			
9	18	21	39	_____	10	22	27	42	_____	14	15	21	39			
12	20	19	24	_____	7	22	21	45	_____	11	13	18	27			
36	39	41	50	_____	23	32	42	58	_____	38	37	37	56			
0	0	0	0	_____	0	0	0	1	_____	0	0	0	0			
327	357	394	502	_____	254	333	376	539	_____	356	382	400	563			
120	126	164	169	_____	128	144	201	199	_____	157	184	229	244			
0	1	2	0	_____	0	0	0	1	_____	1	2	1	3			
20	28	33	22	_____	6	36	27	30	_____	21	30	33	25			
8	13	14	19	_____	15	10	13	16	_____	5	8	9	17			
84	115	141	156	_____	49	108	118	151	_____	91	79	113	167			
232	283	354	366	_____	198	298	359	397	_____	275	303	385	456			
539	640	748	868	_____	452	631	735	936	_____	631	685	785	1019			
101	108	126	136	_____	106	81	112	112	_____	79	85	95	94			
53	54	50	49	_____	56	52	47	51	_____	51	47	45	48			
6	7	10	17	_____	24	14	13	13	_____	24	11	8	12			
6	12	22	39	_____	0	12	8	8	_____	11	9	7	36			
0	0	0	0	_____	0	6	0	2	_____	0	0	0	0			
13	22	20	30	_____	57	19	24	39	_____	6	18	27	35			
25	41	52	86	_____	81	51	45	62	_____	41	38	42	83			
-26	+169	+321	+581	_____	-101	+170	+125	+353	_____	+93	+294	+218	+607			
+118	+14	+24	-131	_____	+45	+2	-169	-183	_____	+173	+229	-30	+9			
-144	+155	+297	+712	_____	-146	+168	+294	+536	_____	-80	+65	+248	+598			

Some Comparisons with Averages for 1936

	1936	1937	1938
Number of farms	402	276	312
<u>Cash Farm Expenses</u>			
Operating	\$536	\$626	\$602
New equipment and purchases of livestock	369	272	246
Payment on debts	279	285	347
Total cash farm expenses	1184	1183	1195
Board for hired labor (home-raised products)	4	4	6
Total farm expenses	1188	1187	1201
<u>Cash Farm Receipts</u>			
Livestock and livestock products	821	910	952
Crops	125	183	169
Miscellaneous	136	165	180
Borrowed	400	317	338
Total cash farm receipts	1482	1555	1639
Increase in net farm capital	198	221	256
Farm perquisites	296	328	325
Total farm receipts	1976	2114	2220
Total farm expenses (from above)	1188	1187	1201
Returns to net farm capital and family labor	788	937	939
5% interest on net farm capital	40	43	49
Family labor earnings	748	884	890
Unpaid family labor*	203	176	159
Operator's labor earnings	\$545	\$708	\$761
Number of persons in family	4.5	4.9	4.7
Number of adult equivalent persons in family	3.3	3.6	3.4
Total assets (end of year)	\$2826	\$2988	\$4049
Total liabilities (end of year)	1602	1581	2073
Net worth (end of year)	1224	1407	1771
Change in net worth during year	+198	+230	+288
% total liabilities of total assets	63	54	53
Lbs. of butterfat produced per cow	177	164	173
Yield of corn per acre, bu.	14.5	29.2	31.9
Yield of oats per acre, bu.	17.6	33.4	32.5
Yield of barley per acre, bu.	11.0	21.9	23.5
Yield of alfalfa per acre, tons	1.3	1.9	2.1
% of tillable land in high return crops	28.	31.	31.
Days of productive work	332	338	361
Days of productive work per worker	232	235	254
Food furnished by the farm	\$184	\$192	\$185
Fuel furnished by the farm	23	23	28
Household and personal cash operating expenses	418	434	416
Other household and personal cash expenses (savings)	35	49	52
Household and personal cash receipts	87	73	67
Net income	\$881	\$996	\$1041

*The charge for unpaid family labor was computed at the rate of \$43 per month in 1936 and \$35 per month in 1937 and 1938.