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UNIVERSITY OF MINNESOTA
Department of Agriculture
and
UNITED STATES DEPARTMENT OF AGRICULTURE
Bureau of Agricultural Economics
and the
County Extension Services of
Blue Earth, Dakota, Dodge, Faribault, Freeborn, Goodhue, Le Sueur,
Mower, Nicollet, Olmsted, Rice, Scott, Steele, and Waseca Counties
Cooperating

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Annual Report
of the
Farm Management Service
for Farmers in Southeast Minnesota
for the year
1938

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Cooperator: _____

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St. Paul, Minnesota
March 1939

Eleventh Annual Report of the Farm Management Service of
Blue Earth, Dakota, Dodge, Faribault, Freeborn, Goodhue, Le Sueur, Mower,
Nicollet, Olmsted, Rice, Scott, Steele, and Waseca Counties
for the Year 1938

Prepared by W. P. Ranney 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 Bureau of Agricultural Economics of the United States Department of Agriculture, and the county extension services of Dodge, Freeborn, Goodhue, Rice, Steele, and Waseca Counties organized late in 1927 the Farm Management Service Project, to operate in the above named counties, beginning January 1, 1928. Since then, eight additional counties have been added. This farm management service is offered to farmers who desire to keep farm records, and to have these records summarized and analyzed in connection with those of other farmers. Each farmer who cooperates in this service pays an annual fee which covers a part of the cost.

The project is under the direction of G. A. Pond and W. P. Ranney of the Division of Agricultural Economics, University of Minnesota. Hearty support and assistance have been rendered by the county agricultural agents of the above named counties, respectively: L. E. McMillan, H. Lawrenz, M. L. Armour, C. G. Gaylord, W. M. Lawson, G. J. Kunau, R. D. Evans, F. L. Liebenstein, E. Nelson, R. Aune, Don Marti, Wallace Miller, G. A. Strobel and C. F. Murphy; by S. B. Cleland and J. B. McNulty of the Division of Agricultural Extension and by T. R. Nodland of the Division of Agricultural Economics, who aided in closing the records at the end of the year.

Note: Completion of this project was made possible by workers supplied on Federal Students' Work Project, 1938-39, Projects 78-70 and 854-10, and Project 6320, Sub-project 420, Minnesota Works Progress Administration. Sponsor: University of Minnesota.

TYPE OF FARMING

The service is restricted to livestock farms on which dairy cattle are the principal source of income. Although some milk and cream are retailed in cities, and some milk is sold for shipment to the Twin Cities, cream for manufacture into butter is the principal dairy product sold. This is marketed through farmer-owned cooperative creameries specializing in the manufacture of high quality butter. The skim milk is retained on the farm and fed to hogs and poultry. These two classes of livestock are also an important source of income.

The principal crops grown are corn, oats, barley and hay. These crops are raised primarily as livestock feed although a seasonal surplus may be sold. Wheat, sweet corn, canning peas, sugar beets, flax and potatoes are grown to a limited extent as cash crops.

This report shows that the receipts from the sales of dairy products constituted about one-fourth, and the receipts from hog sales about one-fifth of the average cash income of 122 cooperators included in this report. These farms are fairly typical of the system of dairy farming prevailing in southeastern Minnesota.

CLIMATE, SOIL, AND TOPOGRAPHY

The weather conditions were fairly uniform in these fourteen counties in 1938. Heavy rainfall during the early part of the summer resulted in serious lodging of small grain. This reduced both yields and quality very materially. Favorable weather in late summer and fall enabled corn to overcome the handicap of a slow start and to produce one of the best crops in several years.

There is some variation in soil conditions and topography among these counties. The soil varies from sandy loam to a rich black clay loam; the latter type predominates in this area. Some of the farms are level, all tillable, and well drained, but most of them are gently rolling with some land too rough or too wet to cultivate. Goodhue County has more rolling land than the other counties. Much of the level land is tiled to make possible its cultivation in wet years. However, on a number of farms, there is considerable land which is poorly drained. In much of Goodhue, Dodge, Mower and Olmsted Counties, and in the eastern part of Rice and Steele Counties, the soil is lime deficient, and applications of lime are necessary in order to grow alfalfa and sweet clover. In the remainder of the area, it is not necessary, as a rule, to apply lime in order to grow these two crops.

RECORDS KEPT

The records kept by the cooperators included inventories at the beginning and end of the year, cash receipts and expenses, a report of feed fed to the various classes of livestock, and a record of farm produce used by the farm family. Supplementary information was also secured during the year regarding crop and livestock production and practices.

The cooperators were assisted and supervised in keeping their records by the field agent, Glen Myers, who visited each farm in the fourteen counties several times during the year. In addition to securing the supplementary information, the field agent's duties included numerous services, viz., securing a monthly list of prices of farm products prevailing in the areas, helping the farmer place uniform values on real estate and equipment, checking the cash and feed records, and answering any questions that might arise as to how the entries should be made in the account book. The supervision resulted in uniformity in the type of records secured, in the inventory valuations and in the prices at which feed and farm produce were charged.

At the end of the year, the books were taken to the central office at University Farm, where they were checked for completeness and accuracy. Then the field agent or a representative of the University visited each cooperator and asked for corrections and secured any data which had been omitted. This method of checking insured a high degree of accuracy and completeness in each individual record.

PURPOSE OF PROJECT

The Farm Management Service renders assistance to the cooperators in keeping such records as will enable each operator to know the returns for his labor and management, the returns to capital and family labor, and the actual earnings from the farm that the family had to spend for living and personal use. The main purpose of the service is to secure such data and information, which when compared with that secured on other farms, will enable the cooperator to increase his efficiency in various enterprises and to organize his farm on a more profitable basis. For the latter purpose, it was necessary for all the cooperators, tenants as well as owner operators to include the whole farm business in order that the results would be on a comparative basis. For the purpose of comparison, the earnings as shown in this report are computed as if each farm was owned by its operator; however, each tenant is supplied a statement of his earnings on the basis of the rental system under which he was operating.

ANALYSIS OF THE FARM BUSINESS

On pages 6 and 7 are presented financial summaries of the year's business, showing the average results for the 122 farms on which the work was completed for the twelve months' period, January 1, 1938 to December 31, 1938, and the average results for the highest one-fifth of the farms in respect to Operator's Labor Earnings, and likewise for the lowest one-fifth. In the "your farm" column, in the copy sent to the farmer, the results of his individual farm business are inserted in order that he may compare his figures with the averages of the various groups.

The data on page 8 and the remaining pages, which set up the ranking in the various measures of efficiency, should suggest to each cooperator some possibilities for improvement in his organization of the various enterprises and of the business as a whole. Although each farm is an individual problem and has its particular advantages and limitations, the type of farming is fairly uniform in the area. This study should bring out trends toward more profitable combinations of enterprises, and also toward more efficient methods of management within the enterprises. In spite of the differences in physical and economic conditions explained on page 2, it is significant that the same general factors account for financial success in all of the eleven counties.

CAPITAL INVESTMENT IN FARM BUSINESS

The average size of the farms in this report was 241 acres. The average farm inventory valuation was \$22,704. This does not include the value of the house in which the operator lived. In 1938, 45.3 per cent of the average farm inventory consisted of land; 19.1 per cent of permanent improvements; 8.7 per cent of feeds and supplies; 11.7 per cent of machinery and equipment; and 15.2 per cent of live-stock, of which about two-fifths or an average of \$1,180 was the average inventory value of milk cows.

RETURNS TO OPERATORS FOR THEIR LABOR AND MANAGEMENT

The average cash receipts per farm were \$6,136. In addition, farm produce to the value of \$252 was consumed by the farm family. The total average receipts per farm is the sum of these two items, \$6,388. The average total expense per farm, \$3,998, includes cash expenses of \$3,802, an estimated allowance of \$174

for board of hired labor, and an average inventory decrease of \$22 per farm. The difference between the total income and total expense figure is \$2,390. This is the return which the farmer received for his own labor and management, the services of members of his family, and the use of his capital. After deducting a charge of 5 per cent on the average inventory valuation, \$1,135, for the services of capital, there remains \$1,255 for the services of the farmer and his family. The average value of family labor used, if computed at hired man's wages, was \$231. The average operator's labor earnings is the family earnings less their allowance of \$231, or \$1,024. This is the return to the farmer for his labor and management over and above a 5 per cent return for his capital and going wages for other members of the family.

On page 21, considerable information for 1938 is shown by counties or groups of counties. A comparison of the financial returns and other miscellaneous information for 1928 to 1938 inclusive is given on pages 22, 23 and 24.

The table on page 20 shows the average amounts and values for each item included in the total of farm produce used in the house. On many farms, a saving could be made if more produce were raised on the farm rather than purchased.

Seventy-nine farmers included in this report kept a detailed record of personal and household expenses, and asked for a distribution of these expenses. This distribution is shown on page 20, with averages for the seventy-nine farms, and for the sixteen most profitable and sixteen least profitable in this group. Taking into consideration the number of members (adult equivalents) in his family and the number in the average family, each farmer can compare his items of expense with those of the average.

Summary of Farm Inventories, 1938

Items	Your farm	Average of 122 farms	24 most profitable farms	24 least profitable farms
Size of farm (acres)	_____	241	288	280
Size of business (days of prod. work) (1)	_____	866	1,216	855
Average farm inventory (without house)	\$ _____	\$22,704	\$30,737	\$25,445
Land	_____	10,283	13,862	11,627
Farm improvements	_____	4,325	5,265	5,383
Machinery and equipment (total)	_____	2,661	3,818	2,726
General machinery and equipment	_____	1,650	2,538	1,723
Tractor	_____	611	672	623
Truck and trailer	_____	140	280	117
Auto (farm share)	_____	196	258	192
Gas engine (farm share)	_____	18	10	27
Electrical equipment (farm share)	_____	46	60	44
Miscellaneous supplies	_____	71	75	59
Feeds and seeds	_____	1,908	2,843	1,912
Horses (total)	_____	546	703	537
Horses	_____	466	581	469
Colts	_____	80	122	68
Productive livestock (total)	_____	2,910	4,171	3,201
Cows	_____	1,180	1,676	1,217
Other cattle	_____	851	1,092	1,101
Hogs	_____	461	537	474
Sheep	_____	207	351	294
Poultry	_____	211	515	115

(1) Explanation of term: "Days of Productive Work."

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 required per head of productive livestock and per acre of crops is used in combining the crops and the livestock in one single measure of size of business.

The number of days of productive work for each animal and each acre of crops, computed from data presented in Minnesota Technical Bulletin 44, "A Study of Dairy Farm Organization in Southeastern Minnesota," are listed as follows:

Item	Per	No. of days of prod. work	Item	Per	No. of days of prod. work
Cows	Cow	16.6	Corn for grain (husked)	Acre	2.1
Other cattle	Animal unit*	7.6	Corn for grain (husk. & shred.)	"	2.8
Sheep	Animal unit*	2.7	Corn for silage	"	2.6
Poultry	100 hens	20.1	Corn hogged	"	1.25
Hogs	(100 lbs. produced)	.55	Corn for fodder	"	1.8
Turkeys	(produced)	.8	Sweet corn	"	3.0
Alfalfa	Acre	1.5	Potatoes	"	6.4
Tame and wild hay	"	.6	Sugar beets	"	4.0
Small grain & flax	"	1.0			
Small grain hogged	"	.4			
Canning peas	"	2.5			

*Animal Unit represents one cow, one bull, two head of young cattle, seven head of sheep, fourteen lambs, five hogs, ten pigs, 100 hens, or 1,400 pounds of turkeys produced.

Summary of Farm Earnings, 1938

Items	Your farm	Average of 122 farms	24 most profitable farms	24 least profitable farms
<u>CASH EXPENSES</u>				
Tractor (new and expense)	\$ _____	\$302	\$443	\$273
Truck and trailer (new and expense)	_____	96	233	124
Auto (new and expense) (farm share)	_____	127	150	111
Gas engine (new & expense) (farm share)	_____	11	7	14
Electricity (new & exp.) (farm share)	_____	42	98	38
Machinery and equipment (new)	_____	330	544	354
Machinery and equipment (expense)	_____	78	96	119
Buildings, fences, tiling (new)	_____	282	316	448
Buildings, fences, tiling (expense)	_____	114	241	119
Hired labor	_____	519	1,138	434
Feed for livestock	_____	603	1,174	512
Other expense for livestock	_____	130	186	144
Horses bought	_____	36	32	37
Cows bought	_____	51	162	35
Other cattle bought	_____	166	279	128
Hogs bought	_____	65	86	44
Sheep bought	_____	110	330	115
Poultry bought	_____	100	272	70
Crop (seed, twine, spray)	_____	278	419	260
Taxes and insurance	_____	322	431	331
General farm	_____	40	43	33
(1) Total cash expense	_____	3,802	6,680	3,743
(2) Decrease in farm inventory	_____	22	-	452
(3) Board for hired labor	_____	174	270	213
(4) Total expense (sum of (1), (2) & (3))	_____	3,998	6,950	4,408
<u>CASH RECEIPTS</u>				
Horses	_____	51	20	21
Cows	_____	260	307	271
Dairy products	_____	1,509	2,616	1,339
Other cattle	_____	578	882	669
Hogs	_____	1,248	1,632	1,100
Sheep	_____	217	318	331
Poultry	_____	520	1,822	200
Eggs	_____	378	643	246
Small grain	_____	244	221	243
Corn	_____	190	680	27
Hay	_____	19	41	6
Root crops	_____	4	1	1
Other crops	_____	162	379	97
Miscellaneous	_____	314	450	376
Income from work off the farm	_____	219	608	90
Agricultural Conservation payments	_____	223	194	211
(5) Total cash receipts	_____	6,136	10,814	5,228
(6) Increase in farm inventory	_____	-	974	-
(7) Farm produce used in house	_____	252	267	278
(8) Total receipts (sum of (5) & (6))	_____	6,388	12,055	5,506
Total expenses (4)	_____	3,998	6,950	4,408
(9) Ret. to cap. & fam. labor (8) minus (4)	_____	2,390	5,105	1,098
(10) Interest on farm inventory	_____	1,135	1,537	1,272
(11) Family labor earnings (9) minus (10)	_____	1,255	3,568	-174
(12) Unpaid family labor	_____	231	129	358
(13) Oper. labor earnings (11) minus (12)	_____	1,024	3,439	-532

Summary of Farm Earnings, 1938 (A)

Items	Your farm	Average of 122 farms	24 most profitable farms	24 least profitable farms
<u>EXPENSES AND NET DECREASES</u>				
Total power	\$ _____	\$728	\$958	\$773
Hired	_____	104	93	112
Tractor	_____	201	270	212
Truck and trailer	_____	75	179	62
Auto (farm share)	_____	106	143	99
Gas engine (farm share)	_____	11	8	13
Electric plant or current (farm share)	_____	46	80	55
Horses	_____	185	185	220
General machinery and equipment	_____	241	348	293
Buildings, fencing, tiling	_____	241	329	305
Productive livestock misc. expense	_____	83	159	82
Crop	_____	211	358	195
Real estate taxes	_____	238	313	264
Personal property tax	_____	35	52	31
Insurance	_____	49	66	36
General farm	_____	40	43	33
Hired labor & board, & unpaid fam. labor	_____	924	1,537	1,005
Interest on farm inventory	_____	1,135	1,537	1,272
(1) Total	_____	3,925	5,700	4,289
<u>RETURNS AND NET INCREASES</u>				
All productive livestock	_____	4,580	7,777	3,960
Cows	_____	1,725	2,812	1,552
Other cattle	_____	710	979	771
Hogs	_____	1,186	1,499	1,100
Sheep	_____	104	202	110
Chickens	_____	502	914	299
Turkeys	_____	353	1,371	128
Crops, feed, vegetables and fuel	_____	-123	409	-515
Agricultural Conservation payments	_____	223	194	211
Miscellaneous	_____	48	151	11
Income from work off the farm	_____	221	608	90
(2) Total	_____	4,949	9,139	3,757
Total expenses (1)	_____	3,925	5,700	4,289
(3) Oper. labor earnings (2) minus (1)	_____	1,024	3,439	-532

(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 financial statement on the preceding pages show that there is a wide range in earnings. The average operator's labor earnings for the twenty-four most profitable farms was \$3,439, and for the twenty-four least profitable farms there was a loss of \$532. The difference between the averages for these two groups was \$3,971. Some of the causes for these differences in earnings may be beyond the control of the farmer. It is significant, however, that the data in this report and the reports of recent years in this same area indicate that there are several factors which show definite relationships with operator's labor earnings and which suggest opportunities for increased earnings. These factors and their relationship with earnings are presented below.

Table 1. Relation of Dairy Production to Farm Earnings

<u>Pounds butterfat per cow</u>	<u>Average</u>	<u>No. of farms</u>	<u>Average operator's labor earnings</u>
Group			
Below 200	173	26	\$519
200 - 269	236	66	1,106
270 and above	305	30	1,281

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

Table 2. Relation of Returns from Other Productive Livestock to Farm Earnings

<u>Returns above feed cost for</u>	<u>Average</u>	<u>No. of farms</u>	<u>Average operator's labor earnings</u>
<u>productive livestock other</u>			
<u>than cows per animal unit</u>			
Group			
Below \$40	\$25.78	34	\$499
\$40 - \$69	53.31	60	933
\$70 and above	96.31	28	1,856

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. Most or all of the feed raised is fed on the farm and considerable additional feed is purchased. Feed is the major item of cost in livestock production. Hence, high returns from livestock above the value of feed fed usually accompanies greater profits from the livestock. This means another addition to the farmer's earnings.

Table 3. Relation of Amount of Productive Livestock to Farm Earnings

<u>Productive livestock</u>	<u>Average</u>	<u>No. of farms</u>	<u>Average operator's labor earnings</u>
<u>units per 100 acres</u>			
Group			
Below 16.0	13.1	36	\$472
16.0 - 22.9	19.4	52	1,007
23.0 and above	27.2	34	925

On some farms the returns from livestock are so low that they do not cover 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 4. Relation of Crop Yields to Farm Earnings

Per cent crop yields were of the average for all the 166 farms	No. of farms	Average operator's labor earnings
Group	Average	
Below 85	77	21
85 - 114	99	77
115 and above	125	24
		\$612
		864
		1,897

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 5. Relation of Choice of Crops to Farm Earnings

Per cent of tillable land in high return crops*	No. of farms	Average operator's labor earnings
Group	Average	
Below 36.0	31.3	31
36.0 - 47.9	41.3	61
48.0 and above	51.6	30
		\$617
		987
		1,519

*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.

As a rule, on these farms, such crops as alfalfa, clover, canning crops, sugar beets, corn, barley, winter wheat, and flax bring a higher net return per acre than other crops usually grown. Additions can be made to earnings by putting a greater percentage of the tillable land into these higher return crops.

Table 6. Relation of Size of Business (Days of Productive Work) to Farm Earnings

Days of productive work	No. of farms	Average operator's labor earnings
Group	Average	
Below 650	551	34
650 - 949	792	55
950 and above	1,313	33
		\$462
		839
		1,913

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.

Table 7. Relation of Amount of Work Accomplished per Worker to Farm Earnings

Days of productive work per worker		No. of farms	Average operator's labor earnings
Group	Average		
Below 300	258	30	\$588
300 - 409	349	58	842
410 and above	469	34	1,721

More days of productive work accomplished per worker reduce 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 8. Relation of Power, Machinery and Building Expense to Farm Earnings*

Expense per day of productive work		No. of farms	Average operator's labor earnings
Group	Average		
\$1.75 and above	\$2.06	27	\$789
\$1.15 - \$1.74	1.40	63	811
Below \$1.15	1.01	32	1,643

*Includes building, fencing, all machinery, 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. Often-times 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 in so far 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 9.

Table 9. Relation of Operator's Labor Earnings to the Number of Factors in which the Farmer is above the 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
Eight	2	_____	XX	\$5,435
Six or seven	15	_____	XXXXXXXXXXXXXXXXXXXX	2,519
Four or five	49	_____	XXXXXXX	877
Two or three	46	_____	XXXXXX	788
One or none	10	_____	XX	-314

The array in Table 9 indicates that it will be worth while for each co-operator 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.

Measures of Farm Organization and Management Efficiency, 1938

Measures used in chart on page 13	Your farm	Average of 122 farms	24 most profit- able farms	24 least profit- able farms
Operator's Labor Earnings	\$ _____	\$1,024	\$3,439	\$-532
(1) Pounds of butterfat per cow	_____	240	260	231
(2) Return over feed (pr. lvst. other than cows)*\$	\$ _____	\$55.51	\$81.07	\$38.50
(3) Productive livestock units per 100 acres	_____	19.7	21.1	18.1
(4) Crop yields**	_____	100	110	96
(5) % of tillable land in high return crops***	_____	41.3	44.0	40.1
(6) Size of business--days of productive work	_____	866	1,216	855
(7) Days of productive work per worker	_____	360	396	325
(8) Power and eq. exp. per day of prod. work	\$ _____	\$1.44	\$1.43	\$1.64

Measures and items related to some of the above measures:

(2) Return over feed per head other cattle	\$ _____	\$13.48	\$17.30	\$11.26
Return over feed per 100 lbs. hogs prod.	_____	3.47	3.60	3.01
Return over feed per hen	_____	1.12	1.38	.82
Return over feed per head sheep	_____	1.28	2.27	1.53
(6) Days of productive work on crops	_____	235	311	238
Days of productive work on prod. livestock	_____	551	695	577
Days of other productive work	_____	80	210	40
(7) Total number of workers	_____	2.4	3.2	2.7
Number of family workers	_____	1.3	1.1	1.7
Number of hired workers	_____	1.1	2.1	1.0
(8) Power expense per day of productive work	\$ _____	\$.87	\$.84	\$.93
Mach. & equip. exp. per day of prod. work	_____	.29	.31	.35
Bldg. & fencing exp. per day of prod. work	_____	.28	.28	.36

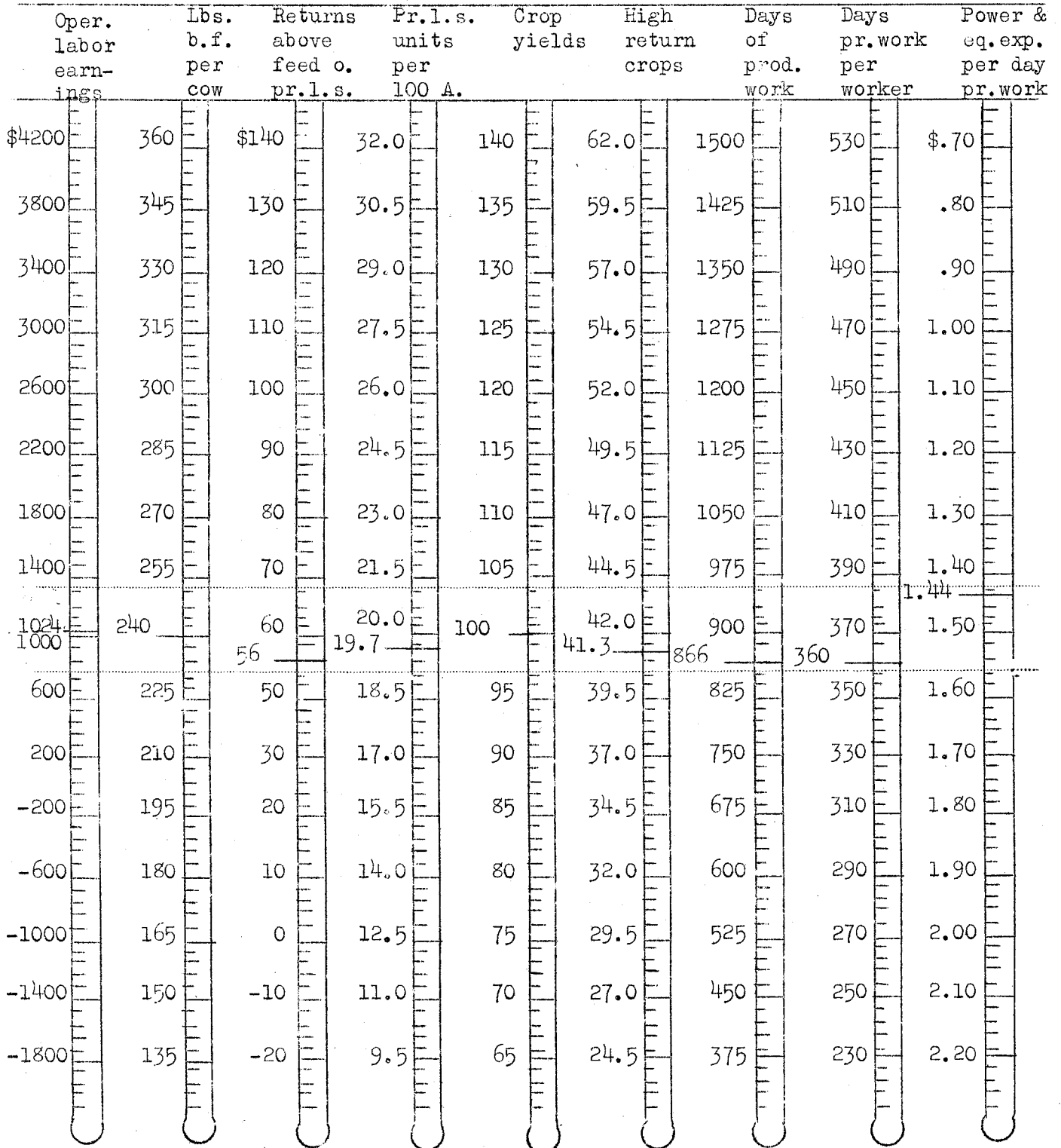
*Given as returns over feed cost per animal unit of productive livestock other than cows.

**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.

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 122 farms included in this summary are located between the dotted lines across the center of this page.



Distribution of Acres in Farm, 1938

Crop (A), (B), (C) and (D) refer to ranking used in calculating % of tillable land in High Return Crops (see page 12)	No. of farms growing this crop	Your farm age of 122 farms	Aver- age of 24 most profit- able farms	24 least profit- able farms	
Winter wheat (B)	40	_____	5.7	7.0	7.5
Spring wheat (C)	53	_____	4.7	5.3	4.3
Oats (D)	72	_____	14.2	12.9	19.0
Barley (B)	83	_____	17.6	15.7	22.9
Rye (D)	14	_____	1.8	1.1	3.7
Flax (B)	12	_____	1.2	2.1	1.4
Wheat and oats (C)	28	_____	4.5	8.2	.4
Oats and barley (C)	60	_____	15.4	17.2	14.8
Flax and wheat (B)	6	_____	1.0	2.5	.8
Canning peas (A)	5	_____	.6	0	.5
Misc. (includes .6 A. of soybeans) (C)	9	_____	.7	.7	.6
Total grain and peas			67.4	72.7	75.9
Corn, grain (B)	118	_____	34.0	46.1	33.8
Corn, silage (C)	113	_____	11.0	13.0	12.6
Corn, fodder (D)	33	_____	1.3	.6	2.4
Sweet corn (B)	17	_____	1.5	2.1	1.3
Sugar beets (A)	1	_____	.2	0	0
Potatoes (A)	42	_____	.3	.3	.3
Misc. (hybrid seed corn, truck cr., etc.) (A)	32	_____	3.3	11.1	.6
Total cultivated crops			52.1	73.2	51.0
Alfalfa (A)	119	_____	19.3	21.4	21.8
Red clover (B)	5	_____	.9	2.5	0
Other legumes & mix. (incl. 7.8 A. soybeans) (C)	74	_____	7.0	8.1	5.3
Timothy (D)	26	_____	2.2	1.2	3.6
Annual hay (millet, sudan gr., sm. grain, etc.) (D)	20	_____	.7	0	1.5
Miscellaneous hays and seed crops (C)	7	_____	.5	0	.9
Phalaris (non-tillable land)	12	_____	2.3	6.8	2.5
Wild hay (non-tillable land)	27	_____	2.8	3.4	1.8
Total hay			35.7	43.4	37.4
Total crop acreage			155.2	189.3	164.3
Alfalfa (A)	29	_____	1.6	1.0	2.0
Sweet clover (B)	39	_____	4.6	5.8	2.0
Red clover or rape pasture (hogs) (B)	6	_____	.6	2.8	.1
Miscellaneous legume pasture (C)	42	_____	8.8	11.3	10.7
Other tillable pasture (D)	72	_____	7.3	7.6	6.8
Non-tillable pasture	99	_____	35.1	37.2	57.6
Total pasture			58.0	65.7	79.2
Tillable land not cropped	42	_____	4.3	5.5	7.0
Timber (not pastured)	51	_____	6.8	9.6	11.5
Roads and waste		_____	9.7	11.5	10.8
Farmstead		_____	6.8	6.7	7.5
Total acres in farm			240.8	288.3	280.3
% of land tillable			75.4	74.6	68.8
% of tillable land in high return crops			41.3	44.0	40.1

Yield of Crops and Amount of Livestock, 1938

Yield of crops per acre	Your farm	Average 122 farms	24 most profitable farms	24 least profitable farms
Winter wheat, bu.	_____	11.0	11.2	10.6
Spring wheat, bu.	_____	14.2	12.6	14.6
Oats, bu.	_____	35.9	39.3	33.0
Barley, bu.	_____	28.2	29.5	29.5
Rye, bu.	_____	17.7	18.2	20.7
Flax, bu.	_____	10.2	10.9	6.6
Wheat and oats, bu.	_____	31.7	31.7	34.4
Oats and barley, bu.	_____	35.1	40.2	33.8
Flax and wheat, bu.	_____	17.2	9.5	9.9
Canning peas, value above seed cost	\$ _____	\$32.84	-	\$40.84
Soybeans, bu.	_____	16.5	22.1	20.0
<hr/>				
Corn, grain, bu.	_____	51.7	56.2	48.2
Corn, silage, tons	_____	8.9	9.3	8.5
Corn, fodder, tons	_____	2.6	2.6	2.8
Sweet corn, tons	_____	2.7	3.2	1.8
Sugar beets, tons	_____	9.7	-	-
Potatoes, bu.	_____	77.9	103.9	47.5
<hr/>				
Alfalfa, tons	_____	2.1	2.4	2.1
Red clover, tons	_____	1.8	2.0	-
Clover and timothy, tons	_____	1.4	1.2	1.6
Soybean hay, tons	_____	1.6	1.8	1.6
Timothy hay, tons	_____	1.6	1.8	1.2
Annual hay, tons	_____	1.7	-	1.6
Phalaris hay, tons	_____	2.5	2.5	2.1
Wild hay, tons	_____	1.2	1.2	1.0
<hr/>				
<u>AMOUNT OF LIVESTOCK</u>				
No. of horses	_____	4.4	4.8	4.7
No. of colts	_____	1.3	1.9	1.1
No. of cows	_____	18.6	21.6	19.6
No. of cows per worker	_____	7.8	7.0	7.6
<hr/>				
Head of other cattle	_____	23.0	26.9	27.6
Litters of pigs raised	_____	11.1	12.7	11.1
Pounds of hogs produced	_____	15,948	19,457	15,241
Head of sheep (2 lambs equal 1 head)	_____	23.3	38.1	28.0
No. of hens	_____	187	274	149
<hr/>				
Total no. of prod. livestock animal units	_____	43.8	56.1	47.1
<hr/>				
% of tot. prod. lvst. units that are cows	_____	43.8	37.5	45.0
% of tot. prod. lvst. units that are o. cattle	_____	26.7	25.0	29.5
% of tot. prod. lvst. units that are hogs	_____	15.4	14.1	13.6
% of tot. prod. lvst. units that are sheep	_____	6.9	9.1	7.7
% of tot. prod. lvst. units that are hens	_____	4.7	5.0	3.5
% of tot. prod. lvst. units that are turkeys	_____	2.5	9.3	.7
<hr/>				
Number of farms with tractors		114	23	23

Factors of Cost and Returns in Dairy Production, 1938

Items	Your farm	Average 122 farms	24 farms highest in B.F. per cow	24 farms lowest in B.F. per cow
Pounds of butterfat per cow	_____	240	313	170
Feeds per cow, lbs.:				
Corn	_____	597	822	396
Small grain	_____	1,071	1,366	799
Com. feeds - under 25% protein	_____	162	369	50
Com. feeds - over 25% protein	_____	83	162	55
Tame hay	_____	742	424	670
Alfalfa	_____	2,587	3,409	2,341
Wild hay	_____	120	196	113
Corn fodder	_____	424	189	666
Silage	_____	6,870	7,575	6,019
Total concentrates	_____	1,913	2,719	1,300
Total dry roughage	_____	3,873	4,218	3,790
Total digestible nutrients	_____	4,500	5,410	3,869
Total digest. nutrients per lb. B.F.*	_____	19.2	17.3	22.9
% protein in ration	_____	13.6	14.5	13.3
% cows fresh - Sept. to Dec., inclusive	_____	54.3	64.6	45.6
Feed cost per cow:				
Concentrates	\$ _____	\$15.74	\$22.96	\$10.39
Roughages	_____	19.47	22.34	17.82
Pasture	_____	5.34	5.17	5.36
TOTAL FEED COSTS	\$ _____	\$40.55	\$50.47	\$33.57
Value of produce per cow:				
B. F. sales	\$ _____	\$75.44	\$101.83	\$46.14
Dairy produce used in house	_____	4.26	4.30	4.16
Milk to other livestock	_____	10.21	13.33	8.85
Appreciation or depreciation	_____	-1.47	-.71	-.32
TOTAL VALUE OF PRODUCT	\$ _____	\$88.44	\$118.75	\$58.83
RETURNS ABOVE FEED COST PER COW	\$ _____	\$47.89	\$68.28	\$25.26
Price received per lb. B.F. sold:				
As manufacturing cream	\$ _____	\$.31	\$.31	\$.30
As market milk & cream & cheese milk	_____	.47	.50	.55
Feed cost per lb. B.F.	_____	.17	.16	.20
Number of cows**	_____	18.6	18.7	17.8

*Not including nutrients secured from pasture.

**All cows which have at some time in the past freshened are included in the dairy herd, and affect the average number of cows used in computing this table. There is some variation in the number of months of dry period per cow; however, this variation is small for the majority of the farms.

Feed Costs and Returns for Other Cattle and Sheep, 1938

Items	Your farm	Average of all farms	Farms highest in returns above feed per head	Farms lowest in returns above feed per head
Other cattle; no. of farms:		122	24	24
Feeds used per head, lbs.:				
Concentrates	_____	474	450	431
Hay and fodder	_____	1,368	1,246	1,430
Silage	_____	2,477	2,639	2,890
Whole milk	_____	355	391	421
Skimmilk	_____	1,061	1,258	839
Feed cost per head:				
Concentrates	\$ _____	\$3.75	\$3.46	\$3.51
Roughages	_____	6.54	6.58	7.22
Milk	_____	5.82	6.51	6.58
Pasture	_____	1.74	1.63	1.73
TOTAL	\$ _____	\$17.85	\$18.18	\$19.04
RETURNS PER HEAD	\$ _____	\$31.33	\$50.79	\$17.67
RETURNS ABOVE FEED COST PER HEAD	\$ _____	\$13.48	\$32.61	\$-1.37
% death loss	_____	8.5	6.5	10.2
Lbs. of butterfat per cow	_____	240	256	230
Number of head of young cattle	_____	22.4	23.3	21.7
<hr/>				
Sheep; no. of farms:		61	12	12
Feeds used per head,* lbs.:				
Concentrates	_____	95	117	161
Tame hay	_____	82	34	85
Alfalfa	_____	105	152	147
Corn fodder and wild hay	_____	56	23	58
Silage	_____	98	94	38
Feed cost per head:				
Concentrates	\$ _____	\$.72	\$.84	\$1.25
Roughages	_____	.82	.80	.90
Pasture	_____	.83	1.11	.60
TOTAL	\$ _____	\$2.37	\$2.75	\$2.75
Value of production per head:				
Wool	\$ _____	\$.96	\$1.17	\$.53
Mutton	_____	2.69	5.95	-1.06
TOTAL	\$ _____	\$3.65	\$7.12	\$-.53
RETURNS ABOVE FEED COST PER HEAD	\$ _____	\$1.28	\$4.37	\$-3.28
Price per lb. wool sold	\$ _____	.18	.18	.17
Value per lamb sold	_____	6.04	6.32	6.40
% lamb crop	_____	94.7	114.7	68.8
% death loss	_____	16.3	10.3	12.7
No. of head of sheep*	_____	46.5	57.9	41.2

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

Feed Costs and Returns for Hogs and Turkeys, 1938

Items	Your farm	Average of all farms	Farms highest in returns above feed	Farms lowest in returns above feed
Hogs: no. of farms:				
		117	23	23
Lbs. of feed per 100 lbs. hogs produced:				
Corn	_____	308	206	429
Small grain	_____	115	93	178
Commercial grain feeds	_____	11	8	12
Total grain and commercial feeds	_____	434	307	619
Tankage	_____	6	5	5
Skimmilk	_____	375	274	570
Cost of feed per 100 lbs. hogs produced:				
Grain and commercial feeds	\$ _____	\$3.09	\$2.25	\$4.36
Tankage and skimmilk	_____	.59	.47	.84
Pasture	_____	.18	.13	.23
Total Feed Cost per 100 lbs. Hogs Prod.	\$ _____	\$3.86	\$2.85	\$5.43
RETURNS PER 100 LBS. HOGS PRODUCED	\$ _____	\$7.33	\$7.87	\$6.78
RET. ABOVE FEED COST PER 100# HOGS PROD.	\$ _____	\$3.47	\$5.02	\$1.35
Price received per 100 lbs. hogs sold	\$ _____	\$7.69	\$8.04	\$7.40
Total no. of litters	_____	11.7	13.9	9.4
Total no. of pigs weaned per litter	_____	6.7	6.8	5.9
% of two-litter system	_____	49.5	60.2	37.7
Pounds of hogs produced	_____	16,629	20,757	10,949
Turkeys: no. of farms:				
		9	4	4
Lbs. of feed per 100 lbs. turkeys produced:				
Grain	_____	403	432	377
Grain by-products	_____	56	74	23
Tankage and meat scraps	_____	36	44	25
Other commercial feeds	_____	145	94	217
Total concentrates	_____	640	644	642
Skimmilk	_____	63	108	27
COST OF FEED PER 100 LBS. TURKEYS PRODUCED	\$ _____	\$7.75	\$7.48	\$8.26
Value of product per 100 lbs. turkeys prod.:				
Eggs and poults	\$ _____	\$2.11	\$4.00	0
Turkeys	_____	18.02	18.96	\$17.70
TOTAL	\$ _____	\$20.13	\$22.96	\$17.70
RETURNS ABOVE FEED COST PER 100 LBS. TURKEYS PRODUCED	\$ _____	\$12.38	\$15.48	\$9.44
Price received per lb. turkey sold, cents	_____	19.8	20.6	19.3
Pounds of turkeys produced	_____	22,359	29,488	16,684

Feed Costs and Returns for Chickens, 1938

Items	Your farm	Average 114 farms	23 farms highest in returns above feed per hen	23 farms lowest in returns above feed per hen
Lbs. of feed per hen:				
Concentrates	_____	127	143	105
Skimmilk	_____	34	30	26
Cost of feed per hen:				
Concentrates	\$ _____	\$1.26	\$1.45	\$1.09
Skimmilk	_____	.04	.04	.04
TOTAL	\$ _____	\$1.30	\$1.49	\$1.13
Value of product per hen:				
Eggs sold and used in house	\$ _____	\$2.05	\$2.75	\$1.32
Poultry sold and used in house plus appreciation or less depreciation	_____	.37	.97	-.12
TOTAL	\$ _____	\$2.42	\$3.72	\$1.20
RETURNS ABOVE FEED COST PER HEN	\$ _____	\$1.12	\$2.23	\$.07
Price received per dozen eggs sold (cts.)	_____	18.1	19.2	16.5
Eggs laid per hen	_____	135	174	94
No. of hens	_____	200	190	128
% of hens that are pullets	_____	75	89	64
% death loss of hens	_____	18	11	24

Feed Costs per Horse and Other Power Expense Items, 1938

Items	Your farm	Average	Most profitable farms	Least profitable farms
Number of farms:		122	24	24
Feed per horse,* lbs.:				
Grain	_____	2,206	2,753	1,901
Tame hay and alfalfa	_____	2,832	2,901	3,021
Wild hay and fodder	_____	1,759	1,909	1,338
Feed costs per horse:				
Grain	\$ _____	\$15.79	\$20.13	\$13.40
Roughage	_____	11.37	12.32	11.64
Pasture	_____	2.78	2.77	2.76
Total	\$ _____	\$29.94	\$35.22	\$27.80
Number of work horses	_____	4.4	4.8	4.7
Number of colts	_____	1.3	1.9	1.1
Total acres in farm	_____	241	288	280
Crop acres per horse	_____	38	45	38
Tractor and horse exp. per crop acre	\$ _____	\$2.62	\$2.65	\$2.75
Farm power expense per day of prod. work	_____	.87	.84	.93

*Two colts equal one horse.

Distribution of Farm Produce Used in House, 1938

	Quantities				Value			
	Your farm	Average 122 farms	24 most profitable	24 least profitable	Your farm	Average 122 farms	24 most profitable	24 least profitable
Whole milk	_____	1,399 qts.	1,727	1,496	\$ _____	\$38.41	\$44.41	\$41.65
Skim milk	_____	122 qts.	128	128	_____	.33	.36	.36
Cream	_____	295 pts.	273	294	_____	28.83	26.57	28.62
Farm made butter	_____	4 lbs.	2	10	_____	1.24	.67	3.31
Eggs	_____	191 doz.	236	207	_____	33.74	41.76	36.32
Poultry	_____	35 head	39	30	_____	16.12	21.55	13.72
Cattle	_____	379 lbs.	497	410	_____	22.16	27.54	26.21
Hogs	_____	432 lbs.	366	445	_____	33.26	28.81	34.29
Sheep	_____	27 lbs.	17	67	_____	1.91	1.34	4.22
Potatoes	_____	24 bu.	32	23	_____	11.79	15.71	10.61
Vegetables & fruit	_____	-	-	-	_____	29.30	28.96	27.04
Farm fuel	_____	8 cds.	8	11	_____	34.83	29.80	51.69
Total					\$ _____	\$251.92	\$267.48	\$278.04
Average value of farm dwelling					\$ _____	\$2,150	\$2,277	\$2,575
Interest and depreciation on farm dwelling					_____	177	198	201

Distribution of Household and Personal Expenses for Those Farms which Kept Complete Accounts of These Expenses, 1938

	Your farm	Average 79 farms	16 most profitable	16 least profitable
Number of persons - family	_____	4.5	4.4	3.9
Number of persons,) Family	_____	3.4	3.3	3.2
adult equivalent) Other*	_____	.9	1.4	1.0
Food	\$ _____	\$283.40	\$299.91	\$270.53
Operating and supplies	_____	132.34	178.93	103.57
Furnishing and equipment	_____	84.00	146.32	65.11
Clothing and materials	_____	109.25	144.88	109.60
Health	_____	69.59	87.71	74.50
Development and recreation	_____	113.13	161.27	149.42
Personal	_____	65.45	77.77	50.73
Life insurance and savings	_____	106.28	191.50	101.13
Personal share of auto expense	_____	85.33	102.85	112.29
Housing**	_____	26.94	20.86	35.74
Total Household & Personal Cash Exp.	\$ _____	\$1,075.71	\$1,412.00	\$1,072.62
Food furnished by the farm	_____	226.89	254.83	232.06
Fuel furnished by the farm	_____	36.82	39.11	52.75
Interest and deprec. on farm dwelling	_____	181.08	181.74	203.75
Interest and deprec. on misc. items***	_____	80.68	102.30	127.18
Total Household & Personal Expenses	\$ _____	\$1,601.18	\$1,989.98	\$1,688.36

*Hired help or others boarded.

**Does not include new houses, new additions, new wiring, etc.

***Personal share of auto, gas engine, electric plant, and household goods.

Miscellaneous Information - Averaged by Counties

Item	Dodge, Mower and Olmsted	Free- born	Good- hue	Rice, Dakota and Scott	Steele	Waseca, Le Sueur, Fari- bault, Blue Earth and Nicollet
Operator's labor earnings	\$1,123	\$560	\$386	\$605	\$1,683	\$1,865
Average farm inventory (without house)	\$23,207	\$21,007	\$21,090	\$21,881	\$23,835	\$25,139
Total acres in farm	246	229	235	228	264	242
Total crop acres	159	155	145	136	171	164
% of land tillable	80	75	75	73	74	71
Animal units of productive livestock	46.6	48.9	37.3	34.4	50.6	41.8
% of animal units that are cows	43.8	41.1	50.0	49.8	41.4	36.9
% of animal units that are other cattle	27.3	26.8	26.3	27.0	24.9	26.9
% of animal units that are hogs	14.6	17.6	11.1	9.4	22.4	18.9
% of animal units that are sheep	9.1	9.5	6.6	.8	6.8	4.6
% of animal units that are hens	3.9	5.0	5.2	5.1	4.2	5.7
% of animal units that are turkeys	1.3	0	.8	7.9	.3	7.0
Pounds B.F. per cow	238	205	244	277	265	229
Returns above feed (P.L.S. other than cows)	\$56	\$40	\$49	\$67	\$61	\$67
Productive livestock units per 100 acres	20.0	22.3	17.3	19.3	20.5	18.6
Crop yields, per cent of average	96	94	92	103	114	112
% tillable land in high return crops	36.8	42.3	41.8	44.5	43.6	44.4
Days of productive work	910	864	828	717	983	846
Days of productive work per worker	385	395	306	278	404	361
Power and equipment expense per day productive work	\$1.44	\$1.35	\$1.45	\$1.65	\$1.29	\$1.51
Yield per acre, corn, bu.	52.7	51.2	44.2	47.7	57.4	56.2
Yield per acre, barley, bu.	27.2	30.0	24.8	26.6	30.6	31.9
Yield per acre, oats, bu.	35.3	32.6	33.7	33.8	46.3	39.9
Yield per acre, alfalfa, tons	1.7	1.8	2.1	2.6	2.4	2.3
Price received per pound butterfat sold (manufactured)	\$.31	\$.31	\$.31	\$.31	\$.32	\$.30
Price received per cwt. hogs sold	7.87	7.72	7.51	7.64	7.75	7.43
Price received per dozen eggs sold	.18	.18	.19	.19	.18	.18

Summary by Years

	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Number of farms	124	172	180	147	143	108	120	150	152	166	122
Acres in farm	163	176	183	198	201	202	209	202	207	213	241
Crop acres in farm	112	121	128	137	138	141	137	141	138	143	164
Farm inventory (not including house)	\$23,655	\$25,494	\$25,562	\$23,060	\$16,680	\$16,522	\$17,431	\$17,182	\$20,343	\$20,723	\$22,704

Farm Earnings (see page 25)

CASH EXPENSES

Tractor (new & expense)	\$94	\$249	\$224	\$151	\$98	\$94	\$132	\$209	\$273	\$325	\$302
Truck (new & expense)	29	65	51	53	52	44	56	49	100	106	96
Auto (new & expense) (farm share)	127	144	111	89	63	66	102	126	160	180	127
Gas engine (new & expense) (farmsh.)	14	19	14	13	10	9	14	11	15	12	11
Electricity (new & exp.) (farm share)	32	24	22	36	31	33	38	42	49	31	42
Machinery and equipment (new)	151	228	174	134	89	98	114	204	276	335	330
Machinery and equipment (expense)	74	70	57	63	51	48	57	59	60	72	78
Buildings, fences, tiling (new)	94	167	178	69	47	51	62	184	263	246	282
Buildings, fences, tiling (expense)	54	49	32	37	19	26	44	52	63	96	114
Hired labor	252	293	262	275	220	208	252	322	374	433	519
Feed for livestock	504	376	309	380	282	200	392	438	534	627	603
Other expense for livestock	59	74	80	82	55	49	52	64	83	83	130
Horses bought	44	28	38	26	32	33	34	50	54	48	36
Cows bought	79	41	45	18	17	15	29	91	63	81	51
Other cattle bought	63	99	78	45	34	52	81	94	119	100	166
Hogs bought	69	101	116	69	23	27	27	93	62	77	65
Sheep bought	5	8	4	15	10	8	34	154	69	39	110
Poultry bought	35	39	43	39	35	42	46	60	73	71	100
Crop (seed, twine, spray)	172	199	202	200	129	107	161	195	187	215	278
Taxes and insurance	285	312	324	349	341	275	275	258	268	274	322
General farm	30	29	26	34	31	25	25	30	28	41	40

(1) Total cash expense	2,266	2,614	2,390	2,177	1,669	1,510	2,027	2,785	3,173	3,492	3,802
(2) Decrease in farm inventory	-	-	375	971	919	-	-	-	-	-	22
(3) Baord for hired labor	95	110	113	100	68	71	82	121	153	149	174
(4) Total expense (sum of (1),(2) &(3))	2,361	2,724	2,878	3,248	2,656	1,581	2,109	2,906	3,326	3,641	3,998

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Summary by Years (Continued)

CASH RECEIPTS

Horses	33	28	40	26	25	17	29	50	55	75	51
Cows	353	350	281	174	128	100	147	316	200	311	260
Dairy products	1,649	1,674	1,374	1,276	978	1,064	1,249	1,307	1,669	1,598	1,509
Other cattle	375	427	319	286	213	204	304	298	345	443	578
Hogs	1,040	1,287	1,323	1,024	502	510	603	793	1,198	1,204	1,248
Sheep	45	59	35	46	37	62	121	192	231	147	217
Poultry	142	138	135	143	140	147	263	254	364	424	520
Eggs	272	278	272	231	193	229	289	398	405	377	378
Small grain	214	268	164	145	111	211	256	349	543	378	244
Corn	29	45	44	43	30	44	151	92	177	166	190
Hay	28	21	19	13	23	17	25	33	29	53	19
Root crops	1	57	56	38	33	53	24	21	15	10	4
Other crops	85	136	150	84	91	70	79	142	110	114	162
Miscellaneous	81	187	175	135	144	112	121	172	226	292	314
Income from work off the farm	117	88	89	140	106	96	160	141	140	203	219
A.A.A. adjustment payments	0	0	0	0	0	0	371	241	182	169	223
(5) Total cash receipts	4,464	5,043	4,476	3,804	2,754	2,936	4,192	4,799	5,889	5,964	6,136
(6) Increase in farm inventory	387	847	-	-	-	505	611	294	1,316	139	-
(7) Farm produce used in house	323	326	304	242	197	193	223	265	299	290	252
(8) Total receipts (sum of (5),(6)&(7))	5,174	6,216	4,780	4,046	2,951	3,634	5,026	5,358	7,504	6,393	6,388
Total expenses (4)	2,361	2,724	2,878	3,248	2,656	1,581	2,109	2,906	3,326	3,641	3,998
(9) Return to cap. & fam. labor (8)-(4)	2,813	3,492	1,902	798	295	2,053	2,917	2,452	4,178	2,752	2,390
(10) Interest on farm inventory	1,182	1,274	1,278	1,153	834	826	872	859	1,017	1,036	1,135
(11) Family labor (9) - (10)	1,631	2,218	624	-355	-539	1,227	2,045	1,593	3,161	1,716	1,255
(12) Unpaid family labor	354	361	381	267	229	241	190	229	247	254	231
(13) Operator's labor earnings (11)-(12)	1,277	1,857	243	-622	-768	986	1,855	1,364	2,914	1,462	1,024

MISCELLANEOUS ITEMS

Yield per acre, corn (bu.)	40.9	48.6	47.1	32.1	51.3	54.7	31.8	47.1	34.4	43.8	51.7
Yield per acre, barley (bu.)	36.9	35.1	31.8	24.9	33.7	23.6	16.9	30.1	21.5	30.0	28.2
Yield per acre, oats (bu.)	44.6	47.5	50.6	39.0	54.8	35.7	20.0	48.7	36.0	48.1	35.9
Yield per acre, alfalfa (tons)	2.9	3.1	2.6	2.3	2.8	2.5	1.1	3.2	1.9	2.1	2.1
% of till. land in high return crops	31.0	32.8	33.4	33.4	35.6	40.5	36.0	40.4	41.7	40.9	41.3
Productive livestock units per 100 A.	19.4	18.9	19.4	21.7	20.9	20.9	20.1	18.6	20.1	19.6	19.7
No. of days of productive work	587	611	653	776	757	768	783	716	763	783	866
Days of prod. work per worker	308	312	327	354	337	331	339	314	341	339	360
Power & eq. exp. per day prod. work	\$1.82	\$1.69	\$1.51	\$1.37	\$1.15	\$1.10	\$1.18	\$1.25	\$1.31	\$1.44	\$1.44
No. of farms with tractors	59	100	112	96	94	72	82	117	122	142	114

Summary by Years (Continued)

Miscellaneous items (continued)	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
No. of work horses	5.5	5.4	5.3	5.6	5.4	5.4	5.3	4.9	4.8	4.5	4.4
No. of colts	.7	.8	.7	.9	.8	.6	.7	1.1	1.2	1.3	1.3
No. of cows	13.8	14.7	15.5	17.7	18.2	18.7	19.1	17.6	18.0	17.6	18.6
No. of head of other cattle	14.2	15.5	16.7	20.3	20.6	19.8	19.6	17.6	19.8	21.3	23.0
No. of litters of spring pigs	5.9	6.3	6.8	8.9	7.2	6.9	5.1	4.4	5.9	5.9	7.3
No. of litters of fall pigs	3.3	3.2	3.2	5.0	4.0	4.9	2.1	2.7	3.3	2.8	3.8
Pounds of hogs produced	12,143	13,270	14,974	18,886	14,796	15,094	12,013	9,672	12,786	12,770	15,948
No. of head of sheep	6.7	7.3	7.8	12.2	14.4	14.5	18.6	19.1	19.2	16.3	23.3
No. of hens	139	134	147	157	165	187	190	171	183	192	187
Pounds of B.F. per cow	241.4	246.7	241.6	241.3	240.0	242.5	235.9	228.1	243.2	231.6	239.8
No. of pigs per litter	6.2	6.4	6.3	6.4	5.9	5.8	6.1	6.3	6.4	6.3	6.7
No. of eggs laid per hen	92.8	96.5	110.0	119.0	106.0	118.0	118.0	131.0	131.0	130.0	135.0
Price received per pound B.F. sold	\$.53	\$.50	\$.40	\$.29	\$.22	\$.22	\$.28	\$.33	\$.37	\$.39	\$.31
Price received per cwt. hogs sold	8.23	9.60	8.94	5.33	3.18	3.42	4.01	8.73	9.26	9.47	7.69
Amount received per lamb sold	10.02	9.55	5.92	4.36	3.63	4.73	5.04	6.89	6.95	7.38	6.04
Price received per pound wool sold	.42	.30	.18	.13	.08	.23	.19	.20	.29	.32	.18
Price received per dozen eggs sold	.27	.28	.22	.16	.13	.12	.15	.22	.20	.19	.18
Price received per lb. turkeys sold	-	-	-	-	-	.14	.20	.25	.18	.21	.20
Returns above feed cost per cow	\$77.43	\$75.56	\$45.17	\$21.54	\$17.78	\$26.46	\$29.82	\$41.99	\$62.25	\$52.56	\$47.89
Returns above feed per hd. o. cattle	15.74	20.55	1.76	-4.57	-4.12	-.58	-4.14	8.83	6.69	10.03	13.48
Returns above feed per cwt. hogs pr.*	.54	2.46	1.69	-.24	-.56	.53	.96	3.98	3.17	2.48	3.47
Returns above feed cost per hd. sheep	6.72	11.28	-.14	0	-.08	2.36	1.90	2.47	3.54	3.63	1.28
Returns above feed cost per hen	1.86	1.78	1.35	1.22	.81	.75	.81	1.59	1.07	.83	1.12
Returns ab. feed per cwt. turkeys prod.	-	-	-	-	-	7.59	11.94	15.23	5.66	12.53	12.38
Feed cost per cow	\$70.85	\$68.16	\$61.38	\$53.98	\$41.46	\$34.47	\$45.21	\$50.43	\$43.70	\$51.29	\$40.55
Feed cost per head other cattle	33.92	32.10	29.42	23.50	17.75	16.51	22.14	23.04	22.52	22.70	17.85
Feed cost per cwt. hogs produced	7.98	7.34	6.32	4.03	3.14	2.83	4.71	5.55	6.27	6.33	3.86
Feed cost per head sheep	2.56	3.07	2.69	2.31	1.78	1.91	2.45	3.40	2.46	2.53	2.37
Feed cost per hen	1.55	1.69	1.38	1.04	.86	.93	1.46	1.69	1.83	1.82	1.30
Feed cost per cwt. turkeys produced	-	-	-	-	-	5.38	8.52	9.21	10.00	8.32	7.75
Feed cost per horse	57.11	53.07	43.21	36.74	28.44	27.98	41.59	42.99	38.60	40.95	29.94
Price of feed, sh. corn (per bu.)	\$.66	\$.73	\$.64	\$.46	\$.36	\$.27	\$.52	\$.64	\$.72	\$.78	\$.43
Price of feed, barley (per bu.)	.67	.52	.42	.37	.29	.35	.65	.58	.60	.60	.39
Price of feed, oats (per bu.)	.49	.40	.31	.24	.19	.19	.36	.32	.30	.35	.22
Price of feed, bran (per cwt.)	1.80	1.60	1.40	.90	.68	.77	1.15	1.23	1.28	1.45	1.03
Price of feed, oil meal (per cwt.)	2.90	3.05	2.75	1.85	1.48	1.60	2.13	1.88	2.13	2.13	2.30
Price of feed, alfalfa (per ton)	15.00	14.50	13.09	13.00	10.00	7.50	12.00	13.00	8.00	11.00	7.50

*See footnote on page 25.

Footnote for pages 22, 23 and 24.

The values of farm real estate in 1931 were reduced approximately 25 per cent from 1928-1930 values. The values in 1932 were reduced about 29 per cent from the 1931 values. Only land was affected by the reduction in 1931, but in 1932 buildings and improvements were cut 25 per cent. In 1936 the values of farm real estate were adjusted upward 10 per cent, only land being affected by the increase. The value of dairy cows was also adjusted downward in 1932 and upward in 1936. These capital losses were not included in the inventory decreases in the financial statement but the changes in valuation resulted in variations in the interest charge. No changes in the basis of inventory valuations were made in 1933, 1934, 1935, 1937 or 1938.

The financial statements differ also in that the unpaid family labor rate was \$60 per month for the 1928 to 1930 period, \$40 in 1931, \$30 in 1932, 1933 and 1934, \$40 in 1935, \$43 in 1936, and \$45 in 1937 and 1938; and the board for hired labor was figured at \$20 per month in 1928, 1929 and 1930, \$15 per month in 1931, \$10 per month in 1932, 1933 and 1934, \$15 per month in 1935, and \$18 per month in 1936, 1937 and 1938.

These adjustments to meet changes in the price level should be considered in comparing 1938 results with previous years.

None of the wheat adjustment payments received under A.A.A. contracts were included in farm receipts for 1933. The wheat payments represent remuneration to the producer for adjustments made in 1934 and 1935 and are, therefore, credited in these years. One-half of the total amount that is due for the full period of the contract was credited as income in 1934 and the remaining one-half in 1935. All of the money received or due under the 1934 corn-hog and sugar-beet contracts was credited as income in 1934 even though final payments for 1934 were not made till 1935. Likewise, all of the money received or due under the 1935 corn-hog and sugar-beet contracts was credited as income in 1935, and all the money due as agricultural conservation payments for 1936, 1937 and 1938 was credited as income in 1936, 1937 and 1938, respectively. The amount due for 1938 is an estimate supplied by the county agricultural agents.

The calculation of the per cent of tillable land in high return crops was changed slightly in 1933; barley was moved from the (C) group to the (B) group (see page 9 for explanation of method of calculation), and was kept in (B) group in 1934, 1935, 1936, 1937 and 1938.

The returns above feed cost per cwt. hogs produced, as shown on page 24, do not include the A.A.A. hog adjustment payments. These payments averaged \$1.76 per cwt. hogs produced in 1934, and \$.83 per cwt. in 1935.

Suggestions for Improvements