



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

UNIVERSITY OF MINNESOTA
Department of Agriculture
and
UNITED STATES DEPARTMENT OF AGRICULTURE
Bureau of Agricultural Economics
and the
County Farm Bureaus of
Blue Earth, Dakota, Dodge, Freeborn, Goodhue, Le Sueur,
Mower, Olmstead, Rice, Steele, and Waseca Counties
Cooperating

---0---

Annual Report
of the
Farm Management Service
for Farmers in Southeast Minnesota
for the year
1936

---0---

Cooperator: _____

Mimeographed Report No. 83
Division of Agricultural Economics
University Farm
St. Paul, Minnesota
March 1937

Ninth Annual Report of the Farm Management Service of
Blue Earth, Dakota, Dodge, Freeborn, Goodhue, Le Sueur, Mower,
Olmstead, Rice, Steele, and Waseca Counties
for the Year 1936

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

INDEX

	Page
Introduction.....	1
Summary of Farm Inventories.....	5
Summary of Farm Earnings (Cash Statement).....	6
Summary of Farm Earnings (Enterprise Statement).....	7
Analysis of the Reasons for Differences in Operator's Earnings.....	8
Effect of Well Balanced Efficiency on Operator's Earnings.....	11
Measures of Farm Organization and Management Efficiency.....	12
Thermometer Chart.....	13
Distribution of Acres in Farm.....	14
Yield of Crops.....	15
Summary of Amount of Livestock.....	16
Feed Costs and Returns for Turkeys.....	16
Factors of Cost and Returns in Dairy Production.....	17
Feed Costs and Returns for other Cattle and Sheep.....	18
Feed Costs and Returns for Hogs and Poultry.....	19
Feed Costs for Horses and Other Power Expense Items.....	20
Distribution of Farm Produce Used in the House.....	21
Distribution of Household and Personal Expenses.....	21
Miscellaneous Information - Averaged by Counties.....	22
Summary of Farm Earnings 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935 and 1936.....	23 & 24
Comparison of Various Items with Previous Years.....	24 & 25
Notes and Suggestions for Improvement.....	26

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 farm bureaus 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 five 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: H. Lawrenz, M. L. Armour, W. M. Lawson, G. J. Kunau, R. D. Evans, F. L. Liebenstein, R. Aune, Don Marti, 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, 1936-37, Project No. 41-100, and Project No. 813-120, 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 over one-fourth, and the receipts from hogs sales about one-fifth of the average cash income of 152 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 eleven counties in 1936. These counties did not suffer from the drouth as much as other parts of Minnesota and surrounding states.

There is some variation in soil conditions and topography in 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 tilled 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 and Olmstead 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 agents, R. C. Bevan and Oren R. Shelley, who visited each farm in the eight counties several times during the year. In addition to securing the supplementary information, the field agents' 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 cooperators 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 152 farms on which the work was completed for the twelve months' period, January 1, 1936 to December 31, 1936, 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 207 acres. The average farm inventory valuation was \$20,343. This does not include the value of the house in which the operator lived. In 1936, 47.9 per cent of the average farm inventory consisted of land; 18.1 per cent of permanent improvement; 9.6 per cent of feeds and supplies; 9.8 per cent of machinery and equipment; and 14.6 per cent of live-stock, of which about two-fifths or an average of \$1,056 was the average inventory value of milk cows.

RETURNS TO OPERATORS FOR THEIR LABOR AND MANAGEMENT

The average cash receipts per farm were \$5,889. In addition, farm produce to the value of \$279 was consumed by the farm family and there was an average inventory increase of \$1,316 per farm. The total average receipts per farm is the sum of these three items, \$7,504. The average total expense per farm, \$3,326, includes cash expenses of \$3,173 and an estimated allowance of \$153 for board of hired labor. The difference between the total income and total expense figure is \$4,178. This is the return which the farmer received for his own labor and manage-

ment, 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, \$1,017, for the services of capital, there remains \$3,161 for the services of the farmer and his family. The average value of family labor used, if computed at hired man's wages, was \$247. The average operator's labor earnings is the family earnings less their allowance of \$247, or \$2,914. 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 22 considerable information for 1936 is shown by counties or groups of counties. A comparison of the financial returns and other miscellaneous information for 1928 to 1936 inclusive is given on pages 23, 24 and 25.

The table on page 21 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.

One-hundred farmers included in this report kept a detailed record of personal and household expenses, and asked for a distribution of those expenses. This distribution is shown on page 21, with averages for the one-hundred farms and for the twenty most profitable and twenty 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, 1936

Items	Your farm	Average of 152 farms	30 most profitable farms	30 least profitable farms
Size of farm (acres)	_____	207	295	152
Size of business (days of prod. work)(1)	_____	763	1,137	531
Average farm inventory (without house)	_____	\$20,343	\$30,084	\$14,578
Land	_____	9,747	14,576	6,815
Farm improvements	_____	3,687	4,947	3,053
Machinery and equipment (total)	_____	1,986	3,049	1,237
General machinery and equipment	_____	1,297	2,017	836
Tractor	_____	374	557	199
Truck	_____	90	171	53
Auto (farm share)	_____	153	190	113
Gas engine (farm share)	_____	19	29	16
Electrical equipment (farm share)	_____	53	85	20
Feeds and seeds	_____	1,880	3,282	1,014
Miscellaneous supplies	_____	64	41	20
Horses (total)	_____	538	651	494
Horses	_____	453	563	437
Colts	_____	85	88	57
Productive livestock (total)	_____	2,441	3,538	1,945
Cows	_____	1,056	1,486	916
Other cattle	_____	606	908	505
Hogs	_____	439	654	296
Sheep	_____	142	143	94
Poultry	_____	198	317	134

(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. hogs produced	.55	Corn for fodder	"	1.8
Alfalfa	Acre	1.5	Sweet corn	"	3.0
Tame & wild hay	"	.6	Potatoes	"	6.4
Small grain & flax	"	1.0	Sugar beets	"	4.0
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, or 100 hens.

Summary of Farm Earnings, 1936

Items	Your farm	Average of 152 farms	30 most profitable farms	30 least profitable farms
CASH EXPENSES				
Tractor (new & exp.)	\$ _____	\$273	\$398	\$224
Truck (new & exp.)	_____	100	154	63
Auto (new & exp.) (farm share)	_____	160	246	89
Gas engine (new & exp.) (farm share)	_____	15	16	17
Electricity (new & exp.) (farm share)	_____	49	107	35
Machinery and equipment (new)	_____	276	439	200
Machinery and equipment (exp.)	_____	60	97	51
Buildings, fences, tiling (new)	_____	263	494	222
Buildings, fences, tiling (exp.)	_____	63	97	60
Hired labor	_____	374	753	211
Feed for livestock	_____	534	827	449
Other expense for livestock	_____	83	107	79
Horses bought	_____	54	88	53
Cows bought	_____	63	60	96
Other cattle bought	_____	119	130	190
Hogs bought	_____	62	101	39
Sheep bought	_____	69	98	79
Poultry bought	_____	73	118	67
Crop (seed, twine, spray)	_____	187	308	147
Taxes and insurance	_____	268	431	199
General farm	_____	28	32	25
(1) Total cash expense	_____	3,173	5,101	2,595
(2) Decrease in farm inventory	_____	-	-	-
(3) Board for hired labor	_____	153	296	83
(4) Total expense (sum of (1),(2) & (3))	_____	3,326	5,397	2,678
CASH RECEIPTS				
Horses	_____	55	64	64
Cows	_____	200	243	135
Dairy products	_____	1,669	2,797	1,163
Other cattle	_____	345	451	182
Hogs	_____	1,198	1,696	656
Sheep	_____	231	222	224
Poultry	_____	364	751	214
Eggs	_____	405	702	286
Small grain	_____	543	1,055	245
Corn	_____	177	587	49
Hay	_____	29	72	19
Root crops	_____	15	43	3
Other crops	_____	110	298	40
Miscellaneous	_____	226	382	114
Income from work off the farm	_____	140	292	78
Agricultural Conservation payments	_____	182	261	112
(5) Total cash receipts	_____	5,889	9,916	3,584
(6) Increase in farm inventory	_____	1,316	2,460	840
(7) Farm produce used in house	_____	299	374	237
(8) Total receipts (sum of (5) & (6))	_____	7,504	12,750	4,661
Total expenses (4)	_____	3,326	5,397	2,678
(9) Ret. to cap. & fam. labor (8) minus (4)	_____	4,178	7,353	1,983
(10) Interest on farm inventory	_____	1,017	1,504	729
(11) Family labor earnings (9) minus (10)	_____	3,161	5,849	1,254
(12) Unpaid family labor	_____	247	349	212
(13) Oper. labor earnings (11) minus (12)	_____	2,914	5,500	1,042

Summary of Farm Earnings, 1936 (A)

Items	Your farm	Average of 152 farms	30 most profitable farms	30 least profitable farms
<u>EXPENSES AND NET DECREASES</u>				
Total power	\$ _____	\$569	\$853	\$466
Hired	_____	83	104	73
Tractor	_____	125	215	98
Truck	_____	41	89	31
Auto (farm share)	_____	90	120	78
Gas engine (farm share)	_____	12	11	8
Elec. plant or current (farm share)	_____	33	69	22
Horses	_____	185	245	156
General machinery and equipment	_____	197	299	163
Buildings, fencing, tiling	_____	207	266	230
Productive livestock misc. expense	_____	54	82	56
Crop	_____	126	212	98
Real estate taxes	_____	208	330	152
Personal property tax	_____	24	37	19
Insurance	_____	36	64	28
General farm	_____	28	32	25
Hired labor & board, & unpaid family labor	_____	774	1,398	506
Interest on farm inventory	_____	1,017	1,504	729
(1) Total	_____	3,240	5,077	2,472
<u>RETURNS AND NET INCREASES</u>				
All productive livestock	_____	4,658	7,360	3,036
Cows	_____	1,995	3,232	1,378
Other cattle	_____	570	849	390
Hogs	_____	1,210	1,659	725
Sheep	_____	110	173	69
Chickens	_____	535	778	407
Turkeys	_____	238	669	67
Crops, feed, vegetables and fuel	_____	1,137	2,635	280
Agricultural Conservation payments	_____	182	261	112
Miscellaneous	_____	37	29	8
Income from work off the farm	_____	140	292	78
(2) Total	_____	6,154	10,577	3,514
Total expenses (1)	_____	3,240	5,077	2,472
(3) Oper. labor earnings (2) minus (1)	_____	2,914	5,500	1,042

(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 thirty most profitable farms was \$5,500, and for the thirty least profitable farms \$1,042. The difference between the averages for these two groups was \$4,458. 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

Pounds butterfat per cow Group	No. of farms		Average operator's labor earnings
	Average		
Below 205	180	37	\$2,509
205 - 274	240	76	2,863
275 and above	309	39	3,399

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

Returns above feed cost for productive livestock other than cows per animal unit Group	No. of farms		Average operator's labor earnings
	Average		
Below \$25	\$7.52	29	\$2,274
\$25 - \$64	42.92	93	3,016
\$65 and above	82.63	30	3,216

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 (of High and Low Returns) to Farm Earnings

Productive livestock units per 100 A.	Returns above feed cost per animal unit of productive livestock			
	Below average		Above average	
	No. of farms	Average operator's labor earnings	No. of farms	Average operator's labor earnings
Below 16.0	24	\$3,066	13	\$3,052
16.0 - 22.9	48	2,602	29	3,068
23.0 and above	19	2,355	19	3,744

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 live-stock 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 utilizing 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 152 farms		No. of farms	Average operator's labor earnings
Group	Average		
Below 85	87	43	\$2,285
85 - 114	98	73	2,903
115 and above	126	36	3,688

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 38.0	32.0	41	\$2,492
38.0 - 47.9	42.5	80	2,872
48.0 and above	52.3	31	3,582

*Crops are marked on page 14 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.

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 600	487	47	\$1,822
600 - 899	720	67	2,784
900 and above	1,182	38	4,495

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 280	246	36	\$2,273
280 - 389	329	79	2,833
390 and above	460	37	3,712

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		
\$1.50 and above	\$1.87	41	\$2,242
\$1.10 - 1.49	1.27	64	3,185
Below \$1.10	.87	47	3,132

*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
Seven or eight	9	=====	XX	\$4,117
Six	14	=====	XX	3,885
Five	25	=====	XX	3,852
Four	38	=====	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	2,858
Three	33	=====	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	2,590
Two	21	=====	XXXXXXXXXXXXXXXXXXXX	2,063
One	12	=====	XXXXXXXXXXXX	1,489

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, 1936

Measures used in chart on page 13.	Your farm	Average of 152 farms	30 most profit- able farms	30 least profit- able farms
Operator's Labor Earnings	\$ _____	\$2,914	\$5,500	\$1,042
(1) Pounds of butterfat per cow	_____	243	253	223
(2) Return over feed (pr. lvst. other than cows)*\$	\$ _____	\$44.74	\$51.41	\$36.45
(3) Productive livestock units per 100 acres	_____	20.1	20.3	20.6
(4) Crop yields**	_____	100	109	86
(5) % of tillable land in high return crops***	_____	41.7	44.4	41.5
(6) Size of business--days of productive work	_____	763	1,137	531
(7) Days of productive work per worker	_____	341	368	291
(8) Power and eq. exp. per day of prod. work	\$ _____	\$1.31	\$1.27	\$1.60

Measures and items related to some of the above measures:

(2) Return over feed per head other cattle	\$ _____	\$6.69	\$10.03	\$5.39
Return over feed per 100 lbs. hogs prod.	_____	3.17	3.21	2.83
Return over feed per hen	_____	1.07	1.16	.86
Return over feed per head sheep	_____	3.54	4.01	2.69
(6) Days of productive work on crops	_____	212	330	142
Days of productive work on prod. livestock	_____	502	708	363
Days of other productive work	_____	49	99	26
(7) Total number of workers	_____	2.3	3.1	1.9
Number of family workers	_____	1.5	1.7	1.4
Number of hired workers	_____	.8	1.4	.5
(8) Power expense per day of productive work	\$ _____	\$.76	\$.77	\$.87
Mach. & equip. exp. per day of prod. work	_____	.27	.27	.31
Bldg. & fencing exp. per day of prod. work	_____	.28	.23	.42

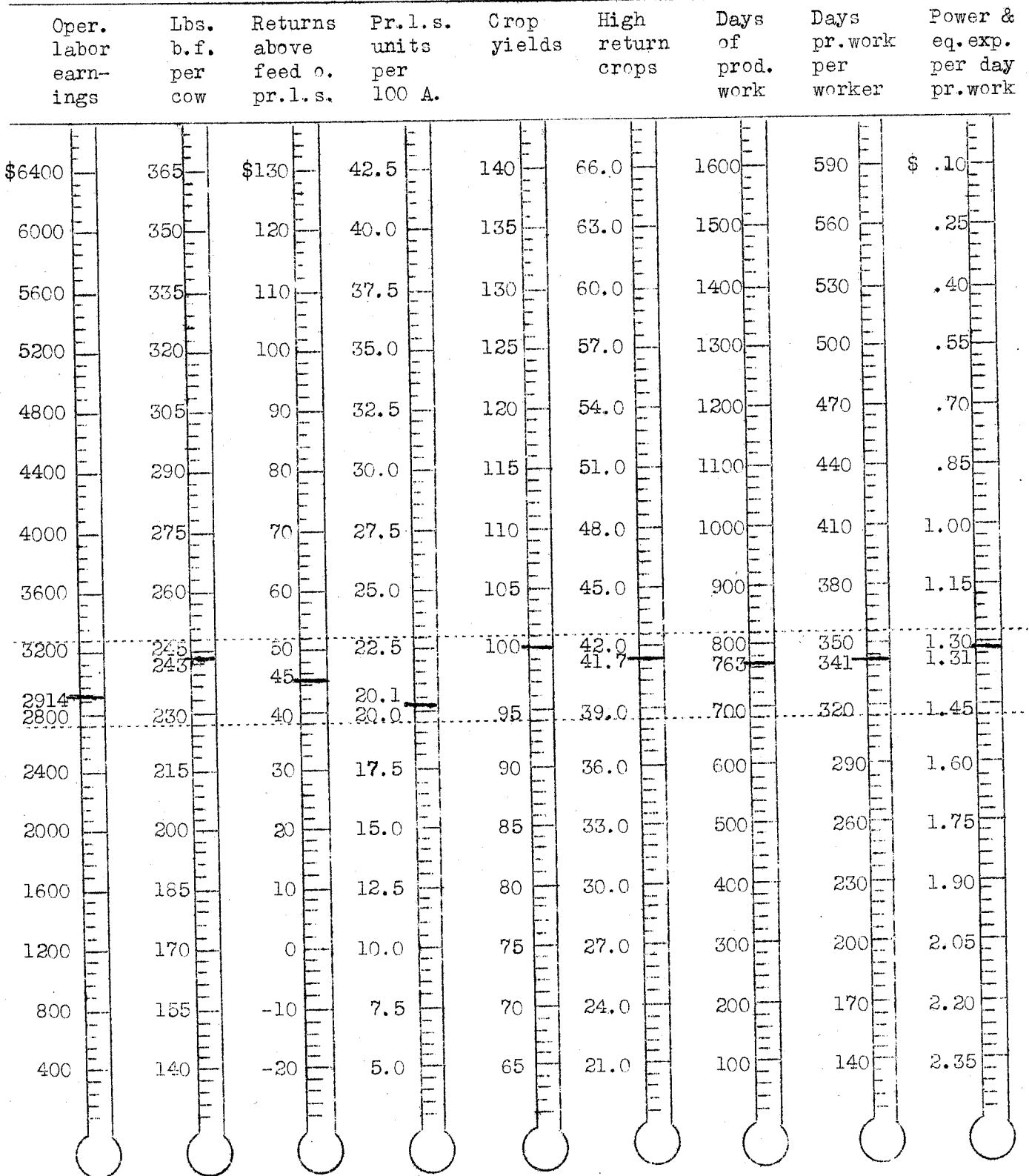
*Given as returns over feed cost per animal unit of productive livestock other than cows.

**Given as a percentage of the average.

***Crops are marked on page 14 as (A), (B), (C), (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 152 farms included in this summary are located between the two dotted lines across the center of this page.



Distribution of Acres in Farm, 1936

Crop (A)(B)(C)(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	Aver. of 152 farms	30 most profit- able farms	30 least profit- able farms
Winter wheat (B)	47	_____	3.8	6.1	1.5
Spring wheat (C)	44	_____	2.8	3.6	2.5
Oats (D)	93	_____	14.7	16.5	10.8
Barley (B)	99	_____	16.6	23.6	13.4
Rye (D)	11	_____	.8	.7	1.0
Flax (B)	13	_____	1.0	1.3	.2
Wheat and oats (C)	36	_____	4.2	5.8	2.1
Oats and barley (C)	64	_____	12.7	19.3	7.7
Flax and wheat (B)	12	_____	1.4	3.6	.5
Canning peas (A)	4	_____	.3	.3	.5
Miscellaneous (includes .2 A. of soybeans) (C)	14	_____	1.0	2.5	0
Total grain and peas			59.3	83.3	40.2
Corn, grain (B)	148	_____	27.5	46.2	16.6
Corn, silage (C)	137	_____	15.1	16.9	12.1
Corn, fodder (D)	29	_____	1.0	.7	.9
Sweet corn (B)	16	_____	1.2	1.6	.8
Sugar beets (A)	2	_____	.3	1.0	0
Potatoes (A)	60	_____	.5	1.1	.2
Miscellaneous (hybrid seedcorn, truck cr., etc) (A)	40	_____	1.4	5.2	.4
Total cultivated crops			47.0	72.7	31.0
Alfalfa (A)	138	_____	16.3	23.7	11.9
Red clover (B)	40	_____	4.1	6.9	2.2
Other legumes & mix. (incl. .7 A. soybeans) (C)	40	_____	2.2	3.2	1.8
Timothy (D)	17	_____	.7	.5	.6
Annual hay (millet, sudan grass, sm. grain, etc) (D)	16	_____	1.1	2.6	.8
Miscellaneous hays and seed crops (C)	15	_____	.9	2.8	.1
Phalaris (non-tillable land)	25	_____	2.0	5.0	1.4
Wild hay (non-tillable land)	46	_____	4.2	9.2	2.3
Total hay			31.5	53.9	21.1
Total crop acreage			137.8	209.9	92.3
Sweet clover pasture (B)	82	_____	8.9	10.4	4.9
Alfalfa pasture (A)	44	_____	2.1	2.8	1.3
Red clover or rape pasture (hogs) (B)	20	_____	1.3	2.3	.3
Miscellaneous legume pasture (C)	23	_____	2.3	1.3	2.3
Other tillable pasture (D)	48	_____	4.8	7.6	3.3
Non-tillable pasture	116	_____	26.1	33.8	26.9
Total pasture			45.5	58.2	39.0
Tillable land not cropped	54	_____	3.7	4.7	2.7
Timber (not pastured)	66	_____	6.7	7.0	5.5
Roads and waste		_____	6.5	8.0	6.0
Farmstead		_____	6.3	7.3	6.3
Total acres in farm			206.5	295.1	151.8
% of land tillable			76.2	78.2	71.5
% of tillable land in high return crops			41.7	44.4	41.5

Yield of Crops, 1936

Yield of crops per acre	Your farm	Average 152 farms	30 most profitable farms	30 least profitable farms
Winter wheat, bu.	_____	20.9	24.6	13.9
Spring wheat, bu.	_____	15.2	18.0	13.7
Oats, bu.	_____	36.0	41.6	34.5
Barley, bu.	_____	21.5	25.1	18.0
Rye, bu.	_____	14.1	2.0	15.3
Flax, bu.	_____	5.2	2.9	6.7
Wheat and oats, bu.	_____	24.4	23.6	27.9
Oats and barley, bu.	_____	33.2	36.6	24.2
Flax and wheat, bu.	_____	9.7	10.7	8.7
Oats, barley and wheat, bu.	_____	29.3	36.9	-
Canning peas, value above seed cost	\$ _____	\$29.40	\$50.93	\$20.00
Soybeans, bu.	_____	12.8	12.6	-
Corn, grain, bu.	_____	34.4	38.4	30.8
Corn, silage, tons	_____	6.0	6.7	5.1
Corn, fodder, tons	_____	1.7	1.3	1.4
Sweet corn, tons	_____	1.7	2.0	1.5
Sugar beets, tons	_____	8.8	11.0	-
Potatoes, bu.	_____	70.2	79.0	57.2
Alfalfa, tons	_____	1.9	2.2	1.7
Red clover, tons	_____	1.6	1.9	1.7
Clover and timothy, tons	_____	1.4	1.5	1.3
Soybean hay, tons	_____	1.4	1.2	.9
Timothy hay tons	_____	1.3	1.0	.9
Phalaris hay, tons	_____	2.3	2.0	2.1
Wild hay, tons	_____	1.0	1.1	.8
Miscellaneous crops	_____	_____	_____	_____

Some methods farmers use to increase their crop yields:

1. Tile, if necessary.
2. Plow under legumes--grow sweet clover in small grains on high lime soil--lime for alfalfa, if necessary.
3. Test out commercial fertilizers on strips of land to see if they pay.
4. Utilize manure effectively.
5. Use rotated legume pastures.
6. Raise and feed hogs on these pastures and hog down corn.
7. Grow recommended varieties of crops.
8. Use best tested seed available.
9. Prepare seed-bed thoroly and timely.

Summary of Amount of Livestock, 1936

Items	Your farm	Average 152 farms	30 most profitable farms	30 least profitable farms
Acres in farm	_____	207	295	152
No. of horses	_____	4.8	5.8	4.2
No. of colts	_____	1.2	1.3	.8
No. of cows	_____	18.0	24.9	14.0
No. of cows per worker	_____	8.1	8.2	7.5
Head of other cattle	_____	19.8	27.7	14.2
Litters of pigs raised	_____	9.2	12.0	6.5
Pounds of hogs produced	_____	12,786	17,093	7,756
Head of sheep (2 lambs equal 1 head)	_____	19.2	31.2	10.9
No. of hens	_____	183.0	253.8	152.8
Total no. of prod. livestock animal units	_____	39.5	56.4	28.9
% of tot. prod. lvst. units that are cows	_____	46.8	45.3	48.4
% of tot. prod. lvst. units that are o. cattle	_____	26.1	25.8	26.4
% of tot. prod. lvst. units that are hogs	_____	14.3	13.4	13.5
% of tot. prod. lvst. units that are sheep	_____	5.5	6.7	4.1
% of tot. prod. lvst. units that are hens	_____	5.3	4.8	6.7
% of tot. prod. lvst. units that are turkeys	_____	2.0	4.0	.9
Number of farms with tractors		122	28	17
Number of farms without tractors		30	2	13

Feed Costs and Returns for Turkeys, 1936

	Your farm	Average 15 farms	5 farms highest in returns above feed per 100 lbs. turkeys produced	5 farms lowest in returns above feed per 100 lbs. turkeys produced
Lbs. of feed per 100 lbs. turkeys produced:				
Grain	_____	398	431	456
Grain by-products	_____	90	119	68
Tankage and meat scraps	_____	30	56	14
Other commercial feeds	_____	58	22	87
Total concentrates	_____	576	628	625
Skimmilk	_____	55	64	84
COST OF FEED PER 100 LBS. TURKEYS PRODUCED	\$ _____	\$10.00	\$10.02	\$11.36
Value of product per 100 lbs. turkeys prod.:				
Eggs	\$ _____	\$.75	\$2.08	\$.07
Turkeys	_____	14.92	17.21	13.75
TOTAL	\$ _____	\$15.66	\$19.29	\$13.82
RETURNS ABOVE FEED COST PER 100 LBS. TURKEYS PRODUCED	\$ _____	\$5.66	\$9.27	\$2.46
Price received per lb. turkey sold, cents	_____	17.5	17.9	17.1
Pounds of turkeys produced	_____	14,611	22,062	10,131

Factors of Cost and Returns in Dairy Production, 1936

Items	Your farm	Average 152 farms	30 farms highest in B.F. per cow	30 farms lowest in B.F. per cow
Pounds of butterfat per cow	_____	243	318	174
Feeds per cow, lbs.:				
Corn	_____	379	550	237
Small grain	_____	993	1,323	571
Com. feeds - under 25% protein	_____	135	164	34
Com. feeds - over 25% protein	_____	88	175	22
Tame hay	_____	748	438	951
Alfalfa	_____	2,717	3,226	2,236
Wild hay	_____	109	34	266
Corn fodder	_____	423	293	372
Silage	_____	7,076	7,879	6,291
Total concentrates	_____	1,595	2,212	864
Total dry roughage	_____	3,997	3,991	3,825
Total digestible nutrients	_____	4,387	4,999	3,593
Total digest. nutrients per lb. B.F.*	_____	18.3	15.8	20.5
% protein in ration	_____	13.9	14.4	13.3
% cows fresh - Sept. to Dec. inclusive	_____	53.0	53.5	45.5
Feed cost per cow:				
Concentrates	\$ _____	\$16.85	\$24.59	\$8.30
Roughages	_____	21.84	24.07	19.34
Pasture	_____	5.01	4.82	5.23
TOTAL FEED COSTS	\$ _____	\$43.70	\$53.48	\$32.87
Value of produce per cow:				
B.F. sales	\$ _____	\$86.45	\$118.74	\$53.78
Dairy produce used in house	_____	5.46	5.16	5.57
Milk to other livestock	_____	13.73	14.18	14.15
Appreciation or depreciation	_____	.31	-.17	-1.84
TOTAL VALUE OF PRODUCT	\$ _____	\$105.95	\$137.91	\$71.66
RETURNS ABOVE FEED COST PER COW	\$ _____	\$62.25	\$84.43	\$38.79
Price received per lb. B.F. sold:				
As manufacturing cream	\$ _____	\$.37	\$.37	\$.37
As market milk & cream & cheese milk	_____	.54	.53	.49
Feed cost per lb. B.F.	_____	.18	.17	.19
Number of cows**	_____	18.0	19.3	16.8

*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, 1936

Items	Your farm	Average of all farms	Farms highest in returns above feed per head	Farms lowest in returns above feed per head
<u>Other cattle: no. of farms:</u>		152	30	30
<u>Feeds used per head, lbs.:</u>				
Concentrates	_____	455	502	721
Hay and fodder	_____	1,597	1,528	2,024
Silage	_____	2,320	2,227	2,402
Whole milk	_____	404	304	494
Skimmilk	_____	1,159	1,344	1,386
<u>Feed cost per head:</u>				
Concentrates	\$ _____	\$4.83	\$5.49	\$7.62
Roughages	_____	7.83	7.45	9.31
Milk	_____	8.15	6.96	10.16
Pasture	_____	1.71	1.61	1.77
TOTAL	\$ _____	\$22.52	\$21.51	\$28.86
RETURNS PER HEAD	\$ _____	\$29.21	\$44.08	\$21.16
RETURNS ABOVE FEED COST PER HEAD	\$ _____	\$6.69	\$22.57	\$-7.70
% death loss	_____	6.7	5.2	5.9
Lbs. of butterfat per cow	_____	222	244	220
Number of head of young cattle	_____	19.8	19.2	18.4
<u>Sheep: no. of farms:</u>				
		62	12	12
<u>Feeds used per head,* lbs.:</u>				
Concentrates	_____	69	34	155
Tame hay	_____	91	92	72
Alfalfa	_____	147	111	133
Corn fodder and wild hay	_____	47	47	70
Silage	_____	141	77	189
<u>Feed cost per head:</u>				
Concentrates	\$ _____	\$.69	\$.40	\$1.53
Roughages	_____	.92	.68	.90
Pasture	_____	.85	.85	.75
TOTAL	\$ _____	\$2.46	\$1.93	\$3.18
<u>Value of production per head:</u>				
Wool	\$ _____	\$1.86	\$1.89	\$1.57
Mutton	_____	4.14	6.39	2.35
TOTAL	\$ _____	\$6.00	\$8.28	\$3.92
RETURNS ABOVE FEED COST PER HEAD	\$ _____	\$3.54	\$6.35	\$.74
Price per lb. wool sold	\$ _____	\$.29	\$.30	\$.28
Value per lamb sold	_____	6.95	7.34	7.88
% lamb crop	_____	97.7	105.8	85.4
% death loss	_____	7.4	3.3	11.1
No. of head of sheep*	_____	47.0	32.2	95.4

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

Feed Costs and Returns for Hogs, 1936

Items	Your farm	Average 147 farms	30 farms highest in returns above feed	30 farms lowest in returns above feed
Lbs. of feed per 100 lbs. hogs produced:				
Corn	_____	329	269	463
Small grain	_____	103	74	145
Commercial grain feeds	_____	13	18	11
Total grain and commercial feeds	_____	445	361	619
Tankage	_____	3	3	3
Skimmilk	_____	409	282	600
Cost of feed per 100 lbs. hogs produced:				
Grain and commercial feeds	\$ _____	\$5.33	\$3.86	\$7.72
Tankage and skimmilk	_____	.79	.56	1.09
Pasture	_____	.15	.11	.18
Total Feed Cost per 100 lbs. Hogs Prod.	\$ _____	\$6.27	\$4.53	\$8.99
RETURNS PER 100 LBS. HOGS PRODUCED	\$ _____	\$9.44	\$9.68	\$9.34
RET. ABOVE FEED COST PER 100# HOGS PROD.	\$ _____	\$3.17	\$5.15	\$.35
Price received per 100 lbs. hogs sold	\$ _____	\$9.26	\$9.50	\$9.12
Total no. of litters	_____	9.5	8.5	7.8
Total no. of pigs weaned per litter	_____	6.4	6.2	6.3
% of two-litter system	_____	49.0	47.0	32.0
Pounds of hogs produced	_____	13,221	12,634	10,383

Feed Costs and Returns for Poultry, 1936

Items	Your farm	Average 139 farms	28 farm highest in returns above feed per hen	28 farms lowest in returns above feed per hen
Lbs. of feed per hen:				
Concentrates	_____	127	123	146
Skimmilk	_____	53	44	74
Cost of feed per hen:				
Concentrates	\$ _____	\$1.74	\$1.76	\$2.07
Skimmilk	_____	.09	.07	.13
TOTAL	\$ _____	\$1.83	\$1.83	\$2.20
Value of product per hen:				
Eggs sold and used in house	\$ _____	\$2.21	\$2.89	\$1.70
Poultry sold and used in house plus appreciation or less depreciation	_____	.69	1.20	.57
TOTAL	\$ _____	\$2.90	\$4.09	\$2.27
RETURNS ABOVE FEED COST PER HEN	\$ _____	\$1.07	\$2.26	\$.07
Price received per doz. eggs sold (cents)	_____	20.1	20.9	19.3
Eggs laid per hen	_____	131	167	103
No. of hens	_____	200	188	171
% of hens that are pullets	_____	77	88	71
% death loss of hens	_____	14	11	15

Feed Costs per Horse and Other Power Expense Items, 1936

Farms with tractors	Your farm	Average	Most profitable farms	Least profitable farms
Number of farms:		122	24	24
Feed per horse,* lbs.:				
Grain	_____	2,314	2,581	2,255
Tame hay and alfalfa	_____	3,273	3,695	2,660
Wild hay and fodder	_____	1,719	1,662	1,593
Feed costs per horse:				
Grain	\$ _____	\$23.11	\$25.08	\$23.77
Roughage	_____	12.55	13.14	9.66
Pasture	_____	3.10	2.88	3.07
Total	\$ _____	\$38.76	\$41.10	\$36.50
Number of work horses	_____	4.8	5.5	4.3
Number of colts	_____	1.3	1.1	1.0
Total acres in farm	_____	222	307	175
Crop acres per horse	_____	32	40	26
Tractor and horse exp. per crop acre	_____	\$2.32	\$2.20	\$2.63
Farm power exp. per day prod. work	_____	.76	.75	.85

Farms without tractors

Number of farms:		30	6	6
Feed per horse,* lbs.:				
Grain	_____	2,348	2,652	2,147
Tame hay and alfalfa	_____	2,830	2,897	3,176
Wild hay and fodder	_____	1,458	1,702	1,573
Feed costs per horse:				
Grain	\$ _____	\$23.64	\$28.06	\$20.65
Roughage	_____	11.48	11.15	11.78
Pasture	_____	2.85	2.75	2.14
Total	\$ _____	\$37.97	\$41.96	\$34.57
Number of work horses	_____	4.8	5.7	3.5
Number of colts	_____	.8	.7	1.0
Total acres in farm	_____	142	182	102
Crop acres per horse	_____	20	22	19
Horse expense per crop acre	\$ _____	\$2.29	\$2.03	\$2.64
Farm power exp. per day prod. work	_____	.77	.70	1.05

*Two colts equal one horse.

Distribution of Farm Produce Used in House, 1936

	Quantities				Value			
	Your farm	Average 152 farms	30 most profit-able	30 least profit-able	Your farm	Average 152 farms	30 most profit-able	30 least profit-able
Whole milk	\$ _____	1325 qts.	1595	1034	\$ _____	\$44.87	\$54.57	\$36.12
Skimmilk	_____	141 qts.	160	153	_____	.51	.58	.56
Cream	_____	297 pts.	394	266	_____	37.97	50.12	32.01
Farm made butter	_____	7 lbs.	13	9	_____	2.43	4.77	3.51
Eggs	_____	180 doz.	187	134	_____	37.80	41.23	27.16
Poultry	_____	38 head	44	32	_____	18.24	23.58	16.32
Cattle	_____	358 lbs.	615	191	_____	19.59	32.49	14.27
Hogs	_____	538 lbs.	703	456	_____	49.14	64.43	41.68
Sheep	_____	9 lbs.	3	13	_____	.61	.23	1.01
Potatoes	_____	23 bu.	35	18	_____	19.94	27.92	14.33
Vegetables & fruit	_____	-	-	-	_____	31.06	41.93	23.17
Farm fuel	_____	8 cds.	8	6	_____	36.50	32.32	26.68
Total	\$ _____				\$ _____	\$298.66	\$374.17	\$236.82
Average value of farm dwelling	\$ _____				\$ _____	\$1832	\$1891	\$1827
Interest and depreciation on farm dwelling	_____				_____	150	153	159

Distribution of Household and Personal Expenses for Those Farms which Kept Complete Accounts of These Expenses, 1936

	Your farm	Average 100 farms	20 most profitable	20 least profitable
Number of persons - family	_____	4.2	4.1	4.2
Number of persons,) Family	_____	3.3	3.5	3.2
adult equivalent) Other*	_____	.8	1.3	.4
Food	\$ _____	\$280.68	\$352.78	\$236.13
Operating and supplies	_____	108.50	138.81	78.16
Furnishing and equipment	_____	76.27	134.23	34.79
Clothing and materials	_____	125.20	188.07	94.58
Health	_____	57.92	55.56	21.92
Development and recreation	_____	96.75	165.14	40.77
Personal	_____	66.82	108.30	40.21
Life insurance and savings	_____	96.81	104.91	51.59
Personal share of auto expense	_____	76.40	133.27	50.45
Housing	_____	16.60	13.76	25.46
Total Household & Personal Cash Exp.	\$ _____	\$1,001.95	\$1,394.83	\$674.06
Food furnished by the farm	_____	252.27	316.04	198.20
Fuel furnished by the farm	_____	34.51	35.03	27.53
Interest and deprec. on farm dwelling	_____	144.34	173.20	128.03
Interest and deprec. on misc. items**	_____	64.84	99.38	46.46
Total Household & Personal Expenses	\$ _____	\$1,497.91	\$2,018.48	\$1,074.28

*Hired help or others boarded.

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

Miscellaneous Information - Averaged by Counties

Item	Dodge, Mower & Olmstead	Free- born	Good- hue	Rice & Dakota	Steele	Waseca, Le Sueur & Blue Earth
Operator's labor earnings	\$2,882	\$2,705	\$2,686	\$2,563	\$3,410	\$3,439
Average farm inventory (without house)	\$19,279	\$18,567	\$19,747	\$20,559	\$24,083	\$21,376
Total acres in farm	212	196	214	184	229	200
Total crop acres	137	134	140	127	151	142
% of land tillable	81	75	78	76	78	69
Animal units of productive livestock	43.4	40.2	34.6	34.1	48.9	37.3
% of animal units that are cows	45.7	44.0	49.5	52.2	44.9	45.1
% of animal units that are other cattle	27.9	24.0	29.2	26.0	25.1	22.8
% of animal units that are hogs	12.4	19.5	9.9	11.3	17.7	16.1
% of animal units that are sheep	6.9	5.7	5.3	3.2	5.7	5.3
% of animal units that are hens	3.4	6.6	5.3	5.3	5.7	5.7
% of animal units that are turkeys	3.7	.1	.9	2.0	1.0	5.0
Pounds B.F. per cow	248	227	234	270	263	231
Returns above feed (P.L.S. other than cows)	\$36	\$43	\$42	\$48	\$54	\$53
Productive livestock units per 100 acres	21.0	20.4	17.2	20.8	23.9	19.2
Crop yields, per cent of average	101	94	88	106	114	106
% tillable land in high return crops	38.6	41.6	41.4	45.0	43.3	41.7
Days of productive work	847	739	668	690	910	766
Days of productive work per worker	371	394	298	299	344	335
Power & equipment expense per day productive work	\$1.31	\$1.14	\$1.31	\$1.43	\$1.40	\$1.33
Yield per acre, corn, bu.	38.3	31.1	35.5	35.0	36.2	29.9
Yield per acre, barley, bu.	20.6	25.1	17.3	25.8	21.9	24.4
Yield per acre, oats, bu.	31.9	34.9	31.7	36.2	39.9	45.0
Yield per acre, alfalfa, tons	1.5	1.8	1.9	2.3	2.2	2.0
Price received per pound butterfat sold (manufact.)	\$.37	\$.37	\$.36	\$.37	\$.39	\$.37
Price received per cwt. hogs sold	9.33	9.24	9.20	9.15	9.36	9.33
Price received per dozen eggs sold	.20	.20	.20	.21	.20	.20

Summary by Years

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

Farm Earnings (see page 32)

CASH EXPENSES

Tractor (new & exp.)	\$94	\$249	\$224	\$151	\$98	\$94	\$132	\$209	\$273
Truck (new & exp.)	29	65	51	53	52	44	56	49	100
Auto (new & exp.) (farm share)	127	144	111	89	63	66	102	126	160
Gas engine (new & exp.) (farm share)	14	19	14	13	10	9	14	11	15
Electricity (new & exp.) (farm share)	32	24	22	36	31	33	38	42	49
Machinery and equipment (new)	151	228	174	134	89	98	114	204	276
Machinery and equipment (exp.)	74	70	57	63	51	48	57	59	60
Buildings, fences, tiling (new)	94	167	178	69	47	51	62	184	263
Buildings, fences, tiling (exp.)	54	49	32	37	19	26	44	52	63
Hired labor	252	293	262	275	220	208	252	322	374
Feed for livestock	504	376	309	380	282	200	392	438	534
Other expense for livestock	59	74	80	82	55	49	52	64	83
Horses bought	44	28	38	26	32	33	34	50	54
Cows bought	79	41	45	18	17	15	29	91	63
Other cattle bought	63	99	78	45	34	52	81	94	119
Hogs bought	69	101	116	69	23	27	27	93	62
Sheep bought	5	8	4	15	10	8	34	154	69
Foultry bought	35	39	43	39	35	42	46	60	73
Crop (seed, twine, spray)	172	199	202	200	129	107	161	195	187
Taxes and insurance	285	312	324	349	341	275	275	258	268
General farm	30	29	26	34	31	25	25	30	28
(1) Total cash expense	2,266	2,614	2,390	2,177	1,669	1,510	2,027	2,785	3,173
(2) Decrease in farm inventory	-	-	375	971	919	-	-	-	-
(3) Board for hired labor	95	110	113	100	68	71	82	121	153
(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

Summary by Years (continued)

CASH RECEIPTS

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

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
Yield per acre, barley (bu.)	36.9	35.1	31.8	24.9	33.7	23.6	16.9	30.1	21.5
Yield per acre, oats (bu.)	44.6	47.5	50.6	39.0	54.8	35.7	20.0	48.7	36.0
Yield per acre, alfalfa (tons)	2.9	3.1	2.6	2.3	2.8	2.5	1.1	3.2	1.9
% of tillable land in high return crops	31.0	32.8	33.4	33.4	35.6	40.5	36.0	40.4	41.7
Productive livestock units per 100 acres	19.4	18.9	19.4	21.7	20.9	20.9	20.1	18.6	20.1
No. of days of productive work	587	611	653	776	757	768	783	716	763
Days of productive work per worker	308	312	327	354	337	331	339	314	341
Power & equip. expense per day prod. work	\$1.82	\$1.69	\$1.51	\$1.37	\$1.15	\$1.10	\$1.18	\$1.25	\$1.31
No. of farms with tractors	59	100	112	96	94	72	82	117	122

Summary by Years (continued)

Miscellaneous items (continued)	1928	1929	1930	1931	1932	1933	1934	1935	1936
No. of work horses	5.5	5.4	5.3	5.6	5.4	5.4	5.3	4.9	4.8
No. of colts	.7	.8	.7	.9	.8	.6	.7	1.1	1.2
No. of cows	13.8	14.7	15.5	17.7	18.2	18.7	19.1	17.6	18.0
No. of head of other cattle	14.2	15.5	16.7	20.3	20.6	19.8	19.6	17.6	19.8
No. of litters of spring pigs	5.9	6.3	6.8	8.9	7.2	6.9	5.1	4.4	5.9
No. of litters of fall pigs	3.3	3.2	3.2	5.0	4.0	4.9	2.1	2.7	3.3
Lbs. of hogs produced	12,143	13,270	14,974	18,886	14,796	15,094	12,013	9,672	12,786
No. of head of sheep	6.7	7.3	7.8	12.2	14.4	14.5	18.6	19.1	19.2
No. of hens	139	134	147	157	165	187	190	171	183
Lbs. of B.F. per cow	241.4	246.7	241.6	241.3	240.0	242.5	235.9	228.1	243.2
No. of pigs per litter	6.2	6.4	6.3	6.4	5.9	5.8	6.1	6.3	6.4
No. of eggs laid per hen	92.8	96.5	110.0	119.0	106.0	118.0	118.0	131.0	131.0
Price received per lb. B.F. sold	\$.53	\$.50	\$.40	\$.29	\$.22	\$.22	\$.28	\$.33	\$.37
Price received per cwt. hogs sold	8.23	9.60	8.94	5.33	3.18	3.42	4.01	8.73	9.26
Amount received per lamb sold	10.02	9.55	5.92	4.36	3.63	4.73	5.04	6.89	6.95
Price received per lb. wool sold	.42	.30	.18	.13	.08	.23	.19	.20	.29
Price received per dozen eggs sold	.27	.28	.22	.16	.13	.12	.15	.22	.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
Returns above feed cost per head of cattle	15.74	20.55	1.76	-4.57	-4.12	-5.58	-4.14	8.83	6.69
Returns above feed cost per cwt. hogs prod.*	.54	2.46	1.69	-.24	-.56	.53	.96	3.98	3.17
Returns above feed cost per head sheep	6.72	4.28	-.14	0	-.08	2.36	1.90	2.47	3.54
Returns above feed cost per hen	1.86	1.78	1.35	1.22	.81	.75	.81	1.59	1.07
Feed cost per cow	\$70.85	\$68.16	\$61.38	\$53.98	\$41.46	\$34.47	\$45.21	\$50.43	\$43.70
Feed cost per head other cattle	33.92	32.10	29.42	23.50	17.75	16.51	22.14	23.04	22.52
Feed cost per cwt. hogs produced	7.98	7.34	6.32	4.03	3.14	2.83	4.71	5.55	6.27
Feed cost per head sheep	2.56	3.07	2.69	2.31	1.78	1.91	2.45	3.40	2.46
Feed cost per hen	1.55	1.69	1.38	1.04	.86	.93	1.46	1.69	1.83
Feed cost per horse	57.11	53.07	43.21	36.74	28.44	27.98	41.59	42.99	38.60
Price of feed, shelled corn (per bu.)	\$.66	\$.73	\$.64	\$.46	\$.36	\$.27	\$.52	\$.64	\$.72
Price of feed, barley (per bu.)	.67	.52	.42	.37	.29	.35	.65	.58	.60
Price of feed, oats (per bu.)	.49	.40	.31	.24	.19	.19	.36	.32	.30
Price of feed, bran (per cwt.)	1.80	1.60	1.40	.90	.68	.77	1.15	1.23	1.28
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
Price of feed, alfalfa (per ton)	15.00	14.50	13.09	13.00	10.00	7.50	12.00	13.00	8.00

*See footnote on page 32.

Footnote for pages 23, 24 and 25.

The values of farm real estate in 1931 were reduced approximately 25% from 1928-1930 values. The values in 1932 were reduced about 29% from the 1931 values. Only land was affected by the reduction in 1931, but in 1932 buildings and improvements were cut 25%. In 1936 the values of farm real estate were adjusted upward 10%, 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 or 1935.

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, and \$43 in 1936; 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.

These adjustments to meet changes in the price level should be considered in comparing 1936 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 was credited as income in 1936. The amount due for 1936 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, and 1936.

The returns above feed cost per cwt. hogs produced as shown on page 25, 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 Improvement