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UNIVERSITY OF MINNESOTA
Department of Agriculture
and the
County Extension Services of
Carlton, Itasca, and St. Louis Counties
Cooperating

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Fifth Annual Report of the Farm Management Service for Farmers of Northern Minnesota for the year 1935

(April 1, 1935 to March 31, 1936)

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Name: _____

Mimeographed Report No. 77
Division of Agricultural Economics
University Farm
St. Paul, Minnesota
May 1936

Third Annual Report of the Farm Management Service of Carlton, Itasca, and St. Louis Counties for the Year April 1, 1935 to April 1, 1936

Prepared by W. P. Ranney, G. A. Pond, S. B. Cleland, and J. B. McNulty

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INTRODUCTION

The Division of Agricultural Extension and the Division of Agricultural Economics of the University of Minnesota and the farm bureaus of Beltrami, Carlton, Clearwater, Hubbard, Itasca, Polk, St. Louis, and Wadena counties organized early in 1931 the Farm Management Service Project, to operate in the above named counties, beginning April 1, 1931. There were no cooperators in Polk county in 1933 and 1934 and none in Wadena county in 1934; three cooperators from Koochiching county were included in 1934. In 1935 there were cooperators only in Carlton, Itasca, and St. Louis counties. This service is offered to men who desire to keep farm records, and to have these records summarized and analyzed in connection with those of other farmers. An annual fee of four dollars per record is charged to cover a part of the cost of the service.

The project is under the direction of S. B. Cleland and J. B. McNulty of the Division of Agricultural Extension, and G. A. Pond and W. P. Ranney of the Division of Agricultural Economics, University of Minnesota. Hearty support and assistance were rendered in 1935 by the following county agricultural agents: Geo. Chambers, A. H. Frick, and D. T. Grussendorf.

RECORDS KEPT

The records kept by the cooperators included inventories at the beginning and end of the year, cash receipts and expenses, crop production, and a record of farm produce used by the farm family. Once or twice during the year and again at the end of the year, each farmer was visited by a representative of the University who checked the records for completeness and accuracy. The books were then taken to the central office at University Farm, where every entry was again checked and omissions were noted. Any discrepancies found were referred back to the farmers for correction. This double checking insured a high degree of accuracy and completeness in each individual record.

CLIMATE, SOIL AND TOPOGRAPHY

The weather conditions normally are fairly uniform in the three counties included in this report. There is a wide variation in soil type on the farms included in this study, ranging from heavy red clay to Jack Pine sand. The land is mostly level, or slightly rolling. Most of these farms were originally covered with timber. There is considerable land remaining to be cleared on some of them.

TYPE OF FARMING

There is a considerable variation in type of farming in these counties, altho in general, dairying is the most important enterprise. These farms, therefore, conform to the center type in this area, but are considerably above the average farm in size and quality of business. Altho some milk and cream are sold in Duluth and smaller cities, cream for manufacture into butter is the principal dairy product sold. This is marketed mostly through farmer owned cooperative creameries specializing in the manufacture of high quality butter. The skimmilk is retained on the farm and fed to calves, hogs, and poultry.

The principal crops grown are oats, barley, hay, and potatoes. Some truck crops are grown, especially in the area near the Duluth market. Silage and fodder are grown for additional roughage feed for cattle.

This report shows that receipts from the sale of dairy products and dairy cattle, constituted approximately three-fifths of the average cash income of the 16 farmers included in this report. The receipts from sales of crops constituted one-seventh of the total cash income.

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 six and seven are presented financial summaries of the year's business, showing the average results for the 16 farms on which the work was completed for the twelve months' period, April 1, 1935 to March 31, 1936, the average results for the highest one-half of the farms in respect to Operator's Labor Earnings, and the average for the lowest one-half. 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 pages 8 to 17 should suggest to each cooperator some possibilities for improvement in his production, control of expenses, and in his organization of the various enterprises and of the business as a whole. There are some variations in soil and climatic conditions and available markets in this area, which, of course, affect the choice of crops and classes of livestock. Each farm is an individual problem and has its particular advantages and limitations in respect to natural resources and markets. However, it is significant that the same general factors account for financial success in the three counties.

CAPITAL INVESTMENT IN FARM BUSINESS

The data on page 5 show that the average size of the farms in this report was 156 acres. The average farm inventory was $7,715. This does not include the value of the house in which the operator lived. In 1935, 49 per cent of the average farm inventory consisted of land; 24 per cent of permanent improvements; 4 per cent of feeds and supplies; 9 per cent of machinery and equipment; and 14 per cent of livestock, of which about one-half or an average of $511 was the average inventory value of milk cows.

RETURNS TO OPERATORS FOR THEIR LABOR AND MANAGEMENT

(See page 6)

The average cash receipts per farm were $1,568. In addition, farm produce to the value of $298 was consumed by the farm family. The total average receipts per farm were the sum of these two items, $1,866. The average total expense per farm, $838, includes $718 cash expense, a decrease in average inventory of $86, and an estimated allowance of $34 for board of hired labor. The difference between the total income and total expense figure is $1,028. 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, $386, for the services of capital, there remains $642 for the services of the farmer and his family. The average value of family labor used, if computed at hired man's wages, was $319. The average operator's labor earnings are the family earnings less their allowance of $319, or $323. 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.

This average return is undoubtedly considerably above the average for all farmers in these counties, for, as stated previously, these 16 farms represent, on the average, a higher type of organization and management than the average of all farms.

The average total value of farm produce used in the house, $298, represents an important item in the farmer's income. This produce is figured at farm prices; if it was purchased at retail prices, the total value would be approximately double this figure. On many farms a saving could be made if more produce were raised on the farm rather than purchased. The table on page 17 shows the average amounts and values for each item included in the total of farm produce used in the house.

HOUSEHOLD AND PERSONAL EXPENSES

In the case of a farm with no debt, the family has, besides the operator's labor earnings, two other sources of income to expend for living and personal expense. One is the amount charged as interest on investment, and the other is the amount allowed for family labor. On the other hand, a farm with a heavy debt (some of these farmers had mortgages covering the full value of their farms and other debts in addition) must pay interest and in most cases at a higher rate than the 5 per cent charged. In these cases, the Operator's Labor Earnings and the allowance for family labor constitute practically the only sources of funds for family living; and if in these cases the farm shows a minus Operator's Labor Earnings more than enough to offset the allowance for family labor, it means that there is no income for family living expenses outside of the farm produce furnished by the farm for the household. These farmers and others, whose family incomes are not sufficient to cover household and personal cash expenses, must go deeper and deeper in debt, in order to meet these expenses.

It is important to know the family income and the reasons why it is not higher. It is also worth while to know the household and personal expenses and whether they are within the family income. Thirteen farmers included in this report kept a detailed record of personal and household expenses. The distribution of these expenses is shown on page 17, with averages for the 13 farms, and for the 6 most profitable and 6 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 item of expense with those of the average.

*All members of the family including women and children are reduced to a full man equivalent on the basis of relative food consumption. The "other" adult equivalents as shown in the table on page 17, are the hired help boarded. They must be added to the adult equivalents as shown for the family in studying the food expense per adult person.

Summary of Farm Inventories

Items	Your farm	Average of 16 farms	8 most profitable farms	8 least profitable farms
Size of farm (acres)	_____	156	132	181
Size of business(days of prod.work) (1)	_____	371	376	365
Average farm inventory (without house)	_____	$7715	$6753	$8676
Land	_____	3811	3410	4211
Farm improvements	_____	1819	1398	2240
Machinery & equipment (total)	_____	667	577	757
Gen. machinery & equipment	_____	450	338	563
Tractor	_____	88	66	109
Truck	_____	52	79	25
Auto (farm share)	_____	58	80	36
Gas engine (farm share)	_____	9	14	4
Electrical equipment (farm share)	_____	10	0	20
Feeds and seed	_____	$296	$267	$324
Miscellaneous supplies	_____	13	18	9
Horses (total)	_____	255	229	281
Horses	_____	238	205	271
Colts	_____	17	24	10
Productive livestock (total)	_____	$854	$854	$854
Cows	_____	511	579	442
Other cattle	_____	206	195	218
Hogs	_____	23	13	33
Sheep	_____	79	21	137
Poultry	_____	35	46	24

(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 labor data secured on detailed accounting routes conducted in Polk and Pine counties, is listed as follows:

Item	Per	No. of days of productive work	Item	Per	No. of days of productive work
Cows	Cow	18.5	Small grain	Acre	1.3
Other cattle	Animal unit*	7.2	Corn (husked)	"	2.6
Sheep	Animal unit*	3.0	Corn (fodder)	"	2.3
Poultry	100 hens	30.0	Corn (silage)	"	3.1
Hogs	100 lbs. pork produced	.9	Sunflower silage	"	3.6
			Summer fallow	"	1.6
Alfalfa	Acre	1.75	Potatoes	"	6.0
Tame hay	"	.8	Rutabagas	"	9.0
Wild hay	"	.6	Cabbage	"	10.0
Small grain hay	"	1.3	Beans	"	3.0
Hay (seed crops)	"	1.0			

*Animal unit represents one cow, one bull, two head of young cattle, seven head of sheep, fourteen lambs, 5 hogs, 10 pigs, or 100 hens.

Summary of Farm Earnings

Items	Your farm	Average of 16 farms	8 most profitable farms	8 least profitable farms
Cash Expenses:				
Tractor (new and exp.)	$____	$ 21	$ 15	$ 26
Truck (new and exp.)	____	43	71	15
Auto (new and exp.) (farm share)	____	40	52	29
Gas engine (new and exp.) (farm share)	____	3	3	3
Electricity (new and exp.) (farm share)	____	7	3	10
Machinery and equipment (new)	____	29	31	28
Machinery and equipment (exp.)	____	13	13	13
Bldgs., fences, tiling (new)	____	6	0	11
Bldgs., fences, tiling (exp.)	____	15	21	10
Hired labor	____	72	84	59
Feed for livestock	____	183	257	108
Other expenses for livestock	____	21	24	19
Horses bought	____	19	33	5
Cows bought	____	19	39	0
Other cattle bought	____	12	23	1
Hogs bought	____	4	4	4
Sheep bought	____	1	0	1
Poultry bought	____	11	21	2
Crop (seed, twine, spray)	____	88	91	85
Taxes and insurance	____	94	84	104
General farm	____	17	17	16
(1) Total cash expense	$____	$ 718	$ 886	$ 549
(2) Decrease in farm inventory	____	86	53	120
(3) Board for hired labor	____	34	48	20
(4) Total expense (sum of (1),(2)&(3)	____	838	987	689
Cash Receipts:				
Horses	$____	$ 15	$ 27	$ 2
Cows	____	105	124	86
Dairy products	____	733	913	552
Other cattle	____	70	103	37
Hogs	____	44	30	58
Sheep	____	72	38	104
Poultry	____	49	91	6
Eggs	____	96	171	20
Small grain	____	28	42	14
Corn	____	0	0	0
Hay	____	12	7	19
Root crops	____	138	202	76
Other crops	____	68	97	39
Miscellaneous	____	30	35	25
Income from work off the farm	____	108	93	124
(5) Total cash receipts	$____	$1568	$1973	$1162
(6) Increase in farm inventory	____	-	-	-
(7) Farm produce used in house	____	298	318	279
(8) Total receipts (sum of (5),(6)&(7)	____	1866	2291	1441
Total expenses (4)	____	838	987	689
(9) Ret.to cap.& fam.labor (8)minus (4)	____	1028	1304	752
(10) Interest on farm inventory	____	386	338	435
(11) Family labor earnings (9) minus (10)	____	642	966	317
(12) Unpaid family labor	____	319	235	402
(13) Operator's labor earnings (11) minus (12)	____	323	731	-85

Summary of Farm Earnings (A)

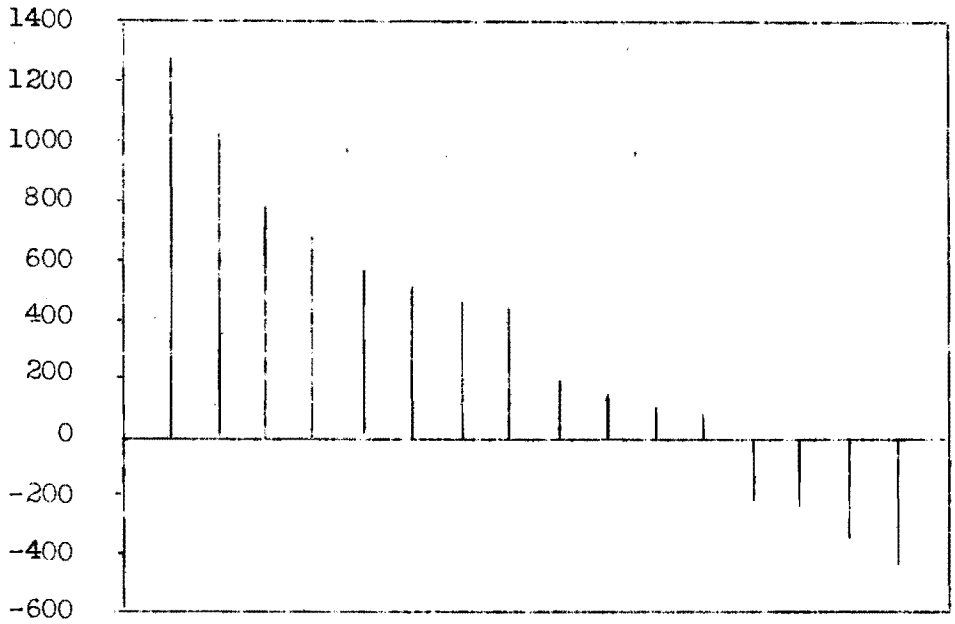
Items	Your farm	Average of 16 farms	8 most profitable farms	8 least profitable farms
EXPENSES AND NET DECREASES				
Total power	$_____	$ 237	$ 275	$ 200
Hired	_____	23	23	22
Tractor	_____	40	36	43
Truck	_____	49	87	12
Auto (farm share)	_____	42	63	23
Gas engine (farm share)	_____	4	5	3
Elec. plant or current (farm share)	_____	8	3	12
Horses	_____	71	58	85
General machinery & equipment	_____	78	73	83
Buildings, fencing, tiling	_____	79	65	93
Productive livestock misc. expense	_____	17	19	16
Crop	_____	58	59	58
Real estate taxes	_____	61	61	61
Personal property tax	_____	12	12	12
Insurance	_____	21	11	30
General farm	_____	17	17	16
Hired labor & board, & unpaid family labor	_____	425	367	481
Interest on farm inventory	_____	386	338	435
(1) Total	$_____	$1391	$1297	$1485
RETURNS AND NET INCREASES				
All productive livestock	$_____	$1382	$1645	$1118
Cows	_____	885	1049	720
Other cattle	_____	181	214	147
Hogs	_____	66	47	86
Sheep	_____	68	29	107
Chickens	_____	158	259	57
Turkeys	_____	24	47	1
Crops, feed, vegetables, and fuel	_____	179	225	133
Miscellaneous	_____	13	24	2
Income from work off the farm	_____	140	134	147
(2) Total	$_____	$1714	$2028	$1400
Total expenses (1)	_____	1391	1297	1485
(3) Operator's labor earnings, (2) minus (1)	_____	323	731	-85

(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.

ANALYZING THE REASONS FOR DIFFERENCES IN OPERATOR'S EARNINGS

The financial statements on the preceding pages point out two important facts. One is that the average return to the farmer for his labor and management is very low. The other is that there is a wide variation in earnings, - from $1305 to a loss of $448, or a range of $1753. The following diagram illustrates this fact:

Chart 1. Range of Earnings



Some of the causes for these differences in earnings may be beyond the control of the farmer. It is significant, however, that the data secured from the records on these 16 farms indicate that there are several very definite factors that enable some farmers to make a fair living even in a severe depression, while others fail to meet expenses. These factors and their relationship with earnings are the following:

Table 1. Relation of Dairy Production to Farm Earnings

Lbs. Butterfat Per Cow Group	Average	No. of Farms	Average Earnings
275 and above	305	4	$349
200 to 274	242	8	322
Below 200	141	4	310

High production per cow lowers 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 Feeding Efficiency to Farm Earnings

Returns Above Feed Cost per Animal Unit of Productive Livestock Group	Average	No. of Farms	Average Earnings
$60 and above	$84	3	$816
10 to 59	31	10	241
Below 10	1	3	-71

These farms have, in addition to the dairy herd, quite an investment in other classes of productive livestock, as young cattle, hogs, sheep or poultry. Most or all of the feed raised is fed, and considerable additional feed is purchased. If the livestock itself or the methods of feeding and management are not efficient, the livestock returns may be too low even to cover the value of the feed. On the other hand, if the livestock returns a substantial margin above the value of feed without an increase in other costs such as labor, shelter, veterinary expense, etc., there will be an addition to the farm earnings.

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

Animal Units of Productive Livestock per 100 acres		No. of	Average
Group	Average	Farms	Earnings
16.0 and above	18.3	2	$465
8.0 to 15.9	11.5	12	331
Below 8.0	5.5	2	138

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 are of the Average for all the 16 farms		No. of	Average
Group	Average	Farms	Earnings
120 and above	134	4	$620
81 to 119	100	9	304
Below 80	56	3	-13

High production per acre, up to certain limits, tends to lower the cost per bushel of grain or potatoes or per ton of hay. The prices of these products are very low. 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 Crop Selection to Farm Earnings

Per cent of Tillable Land in High Return Crops *		No. of	Average
Group	Average	Farms	Earnings
50.0 and above	54.7	3	$693
30.0 to 49.9	40.3	11	244
Below 30.0	28.2	2	-375

* Legume hay, seed, and pasture, potatoes and truck crops.

On most of these northern Minnesota farms it is a problem to find a sufficient amount of productive work, in order profitably to utilize available labor. The more intensive crops such as potatoes and truck crops utilize a greater amount of labor and in most cases give higher returns for that labor than would less intensive crops.

The choice of cash crops depends on a number of factors, such as access to good markets, ability to produce special quality products, such as certified seed that command special prices, soil, climate, transportation facilities, available labor, and a general balance with the livestock program and cropping system.

As stated before, efficient productive livestock is another means for employing labor profitably. It is quite important to have the very best pasture crop so as to reduce grain and roughage feeding as much as possible. Also, as hay is bulky, necessitating high freight charges, if shipped in, it is important to raise all the hay needed and purchase concentrates, if necessary to supplement it.

There are also differences in the amount of feed produced per acre, in the value of that feed, and in the effect on soil fertility, among different hay crops. Legumes furnish more protein, which is an expensive feed to buy, and also add nitrogen to the soil. Among the legumes, alfalfa, where it can be grown successfully, yields more nutrients per acre than other legumes. There is considerable variation in the adaptability of these crops, and it is important for each farmer to determine the kind of crops best adapted to his farm, those that will give the highest net returns, taking into consideration livestock feed requirements, the value of crop as a feed, yields per acre, the development of a good crop rotation, and expenses of production.

Table 6. Relation of Size of Business (days of productive work) to Farm Earnings

Days of Productive Work Group	Average	No. of Farms	Average Earnings
580 and above	613	3	$440
220 to 579	353	10	397
Below 220	189	3	-37

Size of business tends to be a disadvantage to those who show a loss, for greater size is a factor serving to increase the loss. On the other hand, a farmer who is making a profit, could make a larger profit if he increased his size of business without at the same time, lowering materially the efficiency in some branch of the business.

Table 7. Relation of Power and Equipment Expenses to Farm Earnings

Power and Equipment Expense Per Day of Productive Work* Group	Average	No. of Farms	Average Earnings
Below $1.15	$ .81	6	381
$1.15 to $1.99	1.40	7	353
$2.00 and above	2.09	3	139

*Includes building, fencing, tiling and other land improvements, general machinery and equipment, and power machinery expense, depreciation and interest on the investment in these items, and horse expense, such as interest on investment, feed cost, depreciation and miscellaneous cash costs.

The expense factor shows a higher relation with earnings when prices are very low than when they are high. Some of the cash expenses can be kept down by careful management, by making repairs and overhauling before spring work begins and on rainy days or during spare time. The depreciation and interest charges per day of productive work can be kept down by utilizing the equipment as nearly to capacity as possible. Reducing the number of horses to the minimum required for efficient operation of the farm helps reduce the horse expense. In some cases farmers can offset some or all of the depreciation and interest charge by using the machinery for outside work, or by making necessary repairs and improvements with the farm labor available rather than by hiring extra help.

Table 8. Relation of Miscellaneous Expense to Farm Earnings

Miscellaneous Expense per * Day of Productive Work Group	Average	No. of Farms	Average Earnings
Below $1.00	$ .67	4	$532
$1.00 to $2.39	1.71	8	415
$2.40 and above	2.54	4	-67

*Consists of hired labor and its board, family labor other than the operator, taxes, insurance, general farm expense, and miscellaneous crop and livestock expense.

More days of productive work accomplished per worker reduce the labor expense per day of work. More days of productive work per acre of land reduce the real estate tax per day of work. Hence, if expensive equipment is not made necessary, an increase in the amount of productive livestock, of intensive crops, or of outside work tends to lower these miscellaneous expenses per day of work and to increase earnings.

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 those few who can manage to get high all around efficiency 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 Earnings
Five or more	6	____	XXXXXXXXXXXXXXXXXXXXXXXXXX	$549
Three or four	8	____	XXXXXXXXXXXX	268
Two or less	2	XXXXXX		-130

The array in Table 9 suggests that it will be worth while for each cooperator to study carefully his ranking on pages 12 and 13, and learn through his standing in respect to each of the above factors the elements of strength and weakness in his farm business.

Measures of Farm Organization and Management Efficiency

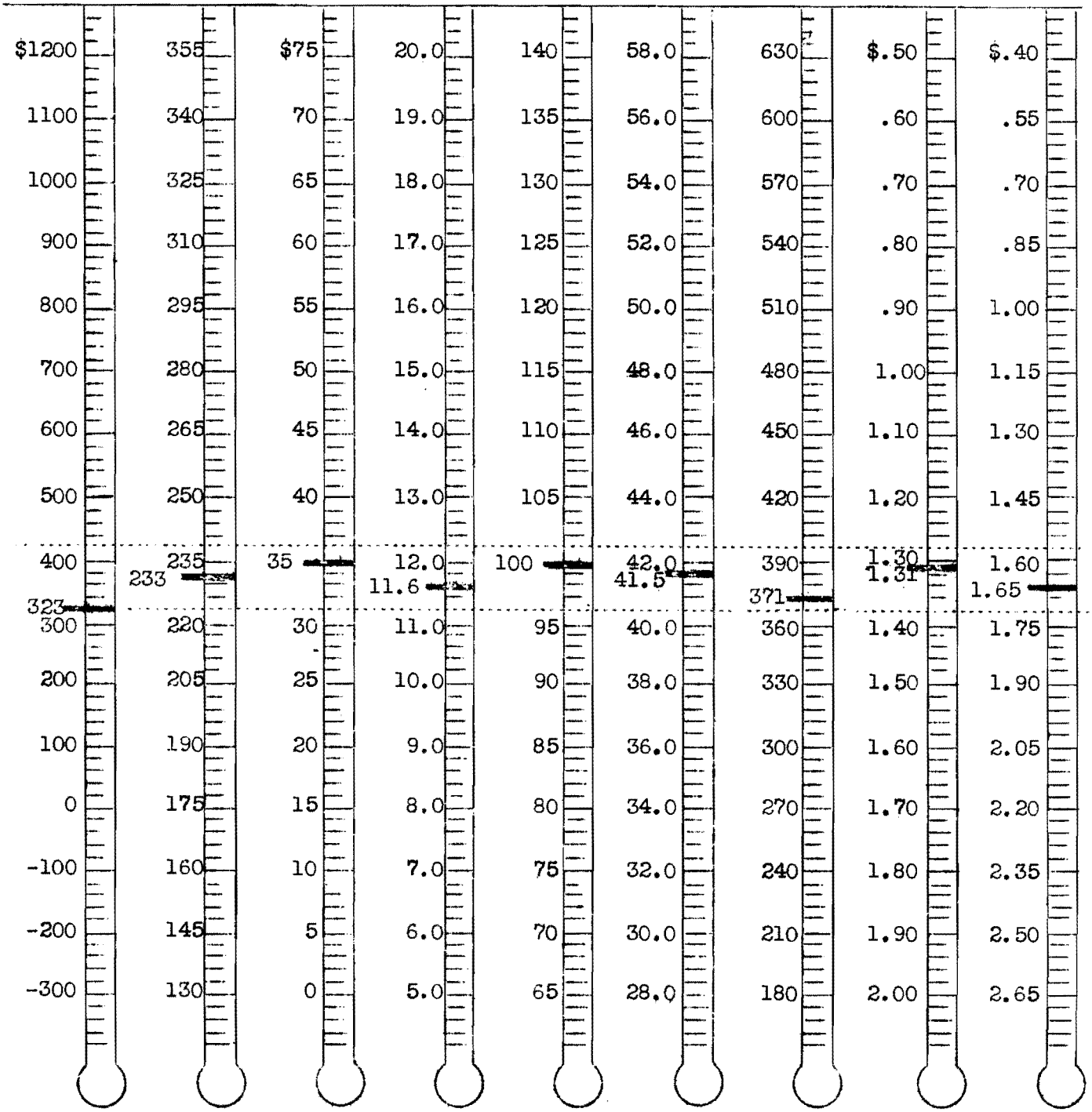
	Your farm	Average of 16 farms	8 most profitable farms	8 least profitable farms
Operator's labor earnings	$____	$323	$731	$ -85
Lbs. of butterfat per cow	____	233	226	240
Returns over feed (productive livestock)	$____	$ 35	$ 55	$ 16
Productive livestock units per 100 acres	____	11.6	13.2	10.0
Crop yields	____	100	106	95
Per cent high return crops	____	41.5	43.5	39.4
Size of business - days of productive work	____	371	376	365
Power and equipment expense per day of productive work	$____	$ 1.31	$ 1.27	$ 1.35
Labor and miscellaneous expense per day of productive work	$____	$ 1.65	$ 1.38	$ 1.93

The above eight factors are those that show a high relation with earnings, and are used on the opposite page, in finding the weak links in the farm business. Below are additional factors that help to explain some of the seven factors shown above.

Per cent of fall freshening	____	27	30	25
Eggs per hen	____	104	124	80
Pigs per litter	____	5.6	5.8	5.3
Per cent lamb crop	____	77	54	107
Price rec. per lb. of B.F. sold as Mfg. cream - cents	____	28.4	29.2	27.7
Price rec. per lb. of B.F. sold as milk or retail cream - cents	____	53.9	52.2	55.9
Price rec. per cwt. of hogs sold	$____	$10.44	$10.31	$10.64
Price rec. per doz. eggs sold - cents	____	24.2	25.1	22.5
Price rec. per lb. of wool sold - cents	____	26.0	27.0	24.0
Power exp. per day of productive work	$____	$ .61	$ .69	$ .53
Machinery exp. per day of prod. work	____	.28	.25	.31
Bldg. exp. per day of prod. work	____	.42	.33	.51
No. of tractors	____	3	1	2
No. of family workers	____	1.7	1.5	1.8
No. of hired workers	____	.2	.3	.1
Total Number of workers	____	1.9	1.8	1.9

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



Distribution of Acres in Farm

Crop	No. of farms growing this crop	Your farm	Average of 16 farms	8 most profitable farms	8 least profitable farms
Wheat	3		1.1	2.3	.0
Oats	13		10.3	11.1	9.5
Barley	5		1.9	.9	2.9
Oats and barley	1		.4	.8	.0
Oats, barley and wheat	1		.1	.0	.2
Total grain			13.8	15.1	12.6
Corn, grain	1		.1	.2	.0
Corn, fodder	1		.2	.4	.0
Corn, silage	3		1.2	2.3	.2
Corn and sunflower silage	3		1.4	.8	2.1
Potatoes	14		4.0	3.7	4.2
Truck crops	8		1.3	.7	1.9
Total cultivated crops			8.2	8.1	8.4
Alfalfa	6		3.3	3.3	3.2
Clover	3		2.3	1.9	2.8
Clover and timothy	12		17.8	13.9	21.7
Other legume mixtures	3		3.5	1.9	5.2
Timothy	3		1.3	.5	2.1
Miscellaneous hay	2		.7	.0	1.4
Wild hay (tillable land)	1		.5	.0	.9
Wild hay (non-tillable land)	4		3.6	1.2	6.0
Clover seed	1		.7	1.3	.0
Total hay and seed			33.7	24.0	43.3
Total crop acreage			55.7	47.2	64.3
Sweet clover pasture	1		.5	1.0	.0
Miscellaneous legume pasture	4		4.5	1.6	7.3
Other tillable pasture	1		.6	.0	1.1
Non-tillable pasture	15		53.5	55.1	51.9
Total pasture			59.1	57.7	60.3
Tillable land not cropped	3		2.3	2.3	2.3
Timber and brush (not pastured)	10		29.0	14.8	43.1
Roads and waste			6.7	5.9	7.6
Farmstead			3.4	3.9	3.1
Total acres in farm			156.2	131.8	180.7
Per cent of land tillable			42.5	38.9	46.0

Yield of Crops

Crop	Your Farm	Average of 16 farms	8 most profitable farms	8 least profitable farms
Wheat, bu.	_____	17.9	17.9	-
Oats, bu.	_____	28.2	30.3	25.8
Barley, bu.	_____	19.1	20.2	18.3
Oats and barley, bu.	_____	36.7	36.7	-
Oats, barley and wheat, bu.	_____	21.0	-	21.0
Corn, grain, bu.	_____	30.0	30.0	-
Corn, fodder, tons	_____	4.9	4.9	-
Corn, silage, tons	_____	8.7	9.1	8.0
Sunflower silage, tons	_____	6.7	5.0	7.6
Potatoes, bu.	_____	122.8	157.1	88.4
Cabbage, tons	_____	3.8	1.5	6.0
Rutabagas, tons	_____	11.4	15.0	10.5
Alfalfa, tons	_____	2.3	2.8	1.8
Clover, tons	_____	1.7	1.5	1.8
Clover and timothy, tons	_____	1.8	1.8	1.9
Oat hay, tons	_____	1.5	-	1.5
Timothy, tons	_____	.3	1.0	.7
Wild hay, tons	_____	1.7	2.0	1.7
Miscellaneous crops	_____	_____		
	_____	_____		

Livestock Summary

	Your farm	Average of 16 farms	8 most profitable farms	8 least profitable farms
No. of cows	_____	8.9	9.9	7.9
No. of cows per worker	_____	4.4	5.0	3.8
Head of other cattle	_____	8.8	9.3	8.3
Litters of pigs raised	_____	.6	.4	.8
Pounds of pork produced	_____	586	370	802
Head of sheep	_____	13.5	3.9	23.1
No. of hens	_____	47.5	66.0	29.1
Total no. of prod. livestock animal units	_____	16.4	16.5	16.3
% of total prod. livestock units that are cows	_____	58.0	61.5	54.7
% of total prod. livestock units that are other cattle	_____	27.4	28.2	26.5
% of total prod. livestock units that are hogs	_____	1.8	1.6	2.0
% of total prod. livestock units that are sheep	_____	9.0	3.5	14.5
% of total prod. livestock units that are hens	_____	3.5	4.8	2.2
% of total prod. livestock units that are turkeys	_____	.3	.4	.1

Farms Without Tractors

	Your farm	Average of 13 farms	6 most profitable farms	6 least profitable farms
No. of horses	_____	2.4	2.5	2.5
No. of colts	_____	.4	.8	-

Farms With Tractors

	Your farm	Average of 3 farms
No. of horses	_____	3.3
No. of colts	_____	.3

Distribution of Farm Produce Used in House

	Quantities		Values	
	Your farm	Average 16 farms	Your farm	Average 16 farms
Whole milk	____qts.	1069 qts.	$____	$45.35
Skimmilk	____qts.	68 qts.	____	.22
Cream	____pts.	330 pts.	____	38.71
Farm-made butter	____lbs.	96 lbs.	____	30.33
Eggs	____doz.	127 doz.	____	31.38
Poultry	____head	41 head	____	9.80
Cattle	____lbs.	300 lbs.	____	17.66
Hogs	____lbs.	212 lbs.	____	18.93
Sheep	____lbs.	61 lbs.	____	4.00
Potatoes	____bu.	30 bu.	____	13.71
Vegetables and fruit		-	____	52.51
Farm fuel	____cds.	19 cds.	____	36.16
Total			$____	$298.76

	Your farm	Average 16 farms
Average value of farm dwelling	$____	$1384
Interest and depreciation on farm dwelling	____	104

Distribution of Household and Personal Expenses for Those Farms Which Kept Complete Accounts of These Expenses 1935

	Your farm	Average 13 farms	6 most profitable	6 least profitable
Number of persons,) Family	____	3.2	2.7	3.8
adult equivalent) Other*	____	.2	.4	.1
Food	$____	$198.28	$193.57	$223.55
Operating and supplies	____	26.41	28.78	25.75
Furnishings and equipment	____	16.37	24.15	11.19
Clothing and materials	____	86.51	80.30	96.43
Health	____	30.02	19.05	45.38
Development and recreation	____	37.61	39.71	39.19
Personal	____	21.70	23.30	23.32
Life insurance and savings	____	183.72	344.34	47.06
Personal share of auto expense	____	24.31	34.67	17.99
Housing	____	1.45	2.47	.67
Total Household and Personal Cash Exp.	$____	$626.38	$790.34	$530.53
Food furnished by the farm	$____	$271.09	$258.98	$281.83
Fuel furnished by the farm	____	40.92	30.00	43.67
Interest and deprec. on farm dwelling	____	100.21	114.25	94.64
Interest and deprec. on misc. items**	____	22.52	33.56	14.90
Total Household and Personal Exp.	$____	$1061.12	$1227.13	$965.57

* Hired help or others boarded.
** Personal share of auto, gas engine, and electric plant, and household goods.

Comparisons of Various Items with Previous Year

	1931	1932	1933	1934	1935
Number of farms	55	44	30	20	16
Farm inventory (not including house)	$10,664	$8,110	$7,867	$8,900	$7,715
Acres in farm	199	184	182	198	156
Crop acres per farm	97	78	79	86	56
Per cent of land tillable	49	42	45	52	42
Per cent of tillable land in high return crops*	50	56	48	35	42
No. of work horses	3.4	2.8	3.0	2.9	2.6
No. of colts	.3	.3	.4	.5	.4
No. of cows	11.6	10.4	10.5	11.8	8.9
No. of head of other cattle	11.2	9.9	10.1	9.1	8.8
No. of litters of pigs raised	2.0	1.5	2.0	1.5	.6
Pounds of pork produced	2961.0	2147.0	1738.0	1367.0	586.0
Head of sheep	12.5	9.6	16.0	25.4	13.5
No. of hens	62.0	57.0	48.0	47.6	47.5
Productive livestock units per 100 acres	12.3	11.4	13.3	13.3	11.6
Lbs. of B.F. per cow	238.	233.	225.	202.	233.
No. of pigs per litter	7.	6.3	7.3	6.0	5.6
No. of eggs laid per hen	121.	120.	119.	111.	104.
Price rec'd. per lb. B.F. sold (mfg. cream)	$ .26	$ .19	$ .23	$ .29	$ .28
Price rec'd. per cwt. hogs sold	5.17	3.29	4.87	6.61	10.44
Price rec'd per lb. wool sold	.12	.08	.27	.21	.26
Price rec'd. per doz. eggs sold	.16	.15	.15	.17	.24
Returns above feed cost per animal unit of productive livestock	$19.00	$11.00	$14.00	$21.00	$35.00
Power and equip. exp. per day of productive work	1.46	1.12	1.17	1.48	1.31
Misc. expense per day of prod. work	1.41	1.09	1.24	1.42	1.65
Yield per acre, wheat, bu.	19.5	17.1	17.1	22.7	17.9
" " " oats, bu.	41.3	33.5	33.7	40.2	28.2
" " " barley, bu.	24.7	23.0	20.3	32.0	19.1
" " " oats and barley, bu.	37.7	33.2	33.2	44.7	36.7
" " " flax, bu.	10.8	6.8	7.5	5.7	-
" " " corn, bu.	24.4	22.9	26.9	21.7	30.0
" " " corn silage, tons	6.7	5.3	4.9	5.9	8.7
" " " clover and timothy, tons	1.6	1.4	1.3	1.0	1.8
" " " potatoes, bu.	155.5	133.2	115.4	112.4	122.8
" " " rutabagas, tons	8.2	13.5	13.8	8.5	11.4

* In 1931 and 1932 all the acreage in hay was given the same weight; in 1933, non-legume hay was given a weight of one-half; and in 1934 and 1935 non-legume hay was not included in with the high return crops.

Comparison of Farm Earnings with Previous Year

	1931	1932	1933	1934	1935
Cash Expenses					
Tractor (new and exp.)	$77	$35	$30	$83	$21
Truck (new and exp.)	36	85	64	76	43
Auto (new and exp.) (farm share)	94	69	73	64	40
Gas engine (new and exp.) (farm share)	11	10	6	7	3
Electricity (new and exp.) (farm share)	8	1	3	1	7
Machinery and equipment (new)	52	23	40	60	29
Machinery and equipment (exp.)	36	21	25	28	13
Bldgs., fences, tiling (new)	22	18	40	53	6
Bldgs., fences, tiling (exp.)	12	15	25	20	15
Hired labor	144	60	86	94	72
Feed for livestock	155	110	197	154	183
Other expenses for livestock	24	29	26	27	21
Horses bought	27	14	15	31	19
Cows bought	10	7	7	14	19
Other cattle bought	10	8	10	6	12
Hogs bought	9	2	3	9	4
Sheep bought	16	6	13	9	1
Poultry bought	11	9	6	8	11
Crop (seed, twine, spray)	122	70	73	116	88
Taxes and insurance	173	125	104	111	94
General farm	22	12	15	22	17
(1) Total cash expense	1071	729	861	993	718
(2) Decrease in farm inventory	93	281	-	-	86
(3) Board for hired labor	62	32	39	38	34
(4) Total expense-sum of (1),(2)& (3)	1226	1042	900	1031	838
Cash Receipts					
Horses	17	3	24	1	15
Cows	57	35	56	66	105
Dairy products	745	438	575	819	733
Other cattle	84	49	48	59	70
Hogs	112	60	60	100	44
Sheep	37	44	53	112	72
Poultry	56	49	75	35	49
Eggs	76	86	53	53	96
Small grain	62	32	43	244	28
Corn	1	0	1	11	0
Hay	24	29	32	55	12
Root crops	307	82	245	159	138
Other crops	104	101	105	284	68
Miscellaneous	58	127	158	77	30
Income from work off the farm	82	144	128	64	108
(5) Total cash receipts	1822	1279	1656	2139	1568
(6) Increase in farm inventory	-	-	61	13	-
(7) Farm produce used in house	253	211	193	255	298
(8) Total receipts-sum of(5),(6)&(7)	2075	1490	1910	2407	1866
Total expenses (4)	1226	1042	900	1031	838
(9) Ret.to cap.& fam.labor (8) minus(4)	849	448	1010	1376	1028
(10) Interest on farm inventory	533	405	393	445	386
(11) Family labor earnings (9) minus(10)	316	43	617	931	642
(12) Unpaid family labor	260	248	268	347	319
(13) Operator's labor earnings (11) minus (12)	56	-205	349	584	323