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ANNUAL REPORT
MEEKER COUNTY FARM MANAGEMENT PROJECT
1937

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COOPERATING AGENCIES
MEEKER COUNTY AGRICULTURAL EXTENSION SERVICE
DIVISION OF AGRICULTURAL EXTENSION
UNIVERSITY OF MINNESOTA

—O—

Report No. 98

DATA ANALYZED AND TABULATED BY
THE DIVISION OF AGRICULTURAL ECONOMICS
UNIVERSITY OF MINNESOTA

COOPERATOR _____

First Annual Report of the Farm Management Project
County Agricultural Extension Service
Meeker County

Prepared by: W. P. Ranney, J. R. Burkholder, and G. A. Pond

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INTRODUCTION

This report covers a year's work of the 30 cooperators in the Meeker County Farm Management project.

These farm account records are summarized in the following pages.

The Meeker County Farm Management project as originally planned had a two-fold objective in mind: First, to study the possibilities of an organized Farm Management project carried on through the Agricultural Extension Service, with an attempt to evaluate the worth-whileness of this kind of work.

Its second objective was to provide definite Farm Management Service for Meeker county farmers, whereby the farm business might be analyzed and studied. It is felt that in some cases cropping plans may be revised and farm enterprises adjusted in the hope of securing more satisfactory financial returns.

In order to carry out the project, an assistant county agent, Mr. J. R. Burkholder, was assigned to work under the direct supervision of Ralph W. Wayne, County Agent. The plan for carrying out the project as prepared by C. L. McNelly, District County Agent Leader, was approved by the Meeker County Agricultural Extension committee and Director F. W. Peck, Agricultural Extension Division, in December, 1937. Mr. S. B. Cleland, Farm Management Specialist at University Farm, has serviced the project throughout and has rendered valuable assistance in all the technical phases.

Credit for the analysis and summarization of the records belongs to W. P. Ranney and G. A. Pond of the Division of Agricultural Economics, University Farm.

Note: Completion of this project was made possible by workers supplied on Federal Students' Work Project, 1937-38, Project No. 89-70, and Project No. 4841, Sub-project 420, Minnesota Works Progress Administration. Sponsor: University of Minnesota.

They supervised the clerical and analytical work in connection with the report. The procedure, technique, and general report form are patterned after the reports of the regular Farm Management Service of the Division of Agricultural Economics. It would have been difficult to publish a satisfactory report had not the facilities of the Division of Agricultural Economics been available.

The 30 farms covered by this report are typical of the system of dairy farming prevailing in Meeker county, Minnesota. In general, dairying is the most important enterprise with cash crops, including seed corn, of secondary importance. Dairy crops constitute approximately one-third of the receipts, with hog sales approximately one-seventh. Poultry production is also a very important enterprise on Meeker county farms.

Such farm crops as corn, oats, barley and hay are raised primarily as live-stock feed. Wheat, sweet corn, and flax are grown as cash crops. Meeker county is also an important seed corn-producing section of west central Minnesota. There is an ample supply of lime in the soil and alfalfa and sweet clover grow readily.

There is some variation in soil conditions and topography. The soil varies from sandy loam to a rich black clay loam. Most of the farms are level, largely tillable, and well-drained. July, August, and the late fall months of 1937 were very dry. Otherwise, the weather conditions for the year were fairly favorable.

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 Assistant Agent, J. R. Burkholder, who visited each farm several times during the year. In addition to securing the supplementary information, the agents' duties included numerous services, viz., securing a monthly list of prices of farm products prevailing in the county, 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 checked on the farm, rechecked in the office and taken to the central office at University Farm where they were again checked for completeness and accuracy. Then the Agent 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 5 and 6 are presented financial summaries of the year's business, showing the average results for the 30 farms on which the work was completed for the twelve months' period, January 1, 1937 to December 31, 1937, and the average results for the highest one-third of the farms in respect to Operator's Labor Earnings, and likewise for the lowest one-third. 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 7 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 the county.

CAPITAL INVESTMENT IN FARM BUSINESS

The average size of the farms in this report was 204 acres. The average farm inventory valuation was \$17,000. This does not include the value of the house in which the operator lived. In 1937, 42.7 per cent of the average farm inventory consisted of land; 23.1 per cent of permanent improvement; 7.7 per cent of feeds and supplies; 10.7 per cent of machinery and equipment; and 15.6 per cent of livestock, of which about two-fifths or an average of \$1,080 was the average inventory value of milk cows.

RETURNS TO OPERATORS FOR THEIR LABOR AND MANAGEMENT

The average cash receipts per farm were \$3,824. In addition, farm produce to the value of \$232 was consumed by the farm family and there was an average inventory increase of \$780 per farm. The total average receipts per farm is the sum of these three items, \$4,936. The average total expense per farm, \$2,286, includes cash expenses of \$2,188 and an estimated allowance of \$98 for board of hired labor. The difference between the total income and total expense figure is \$2,650. 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, \$850, for the services of capital, there remains \$1,800 for the services of the farmer and his family. The average value of family labor used, if computed at hired man's wages, was \$413. The average operator's labor earnings is the family earnings less their allowance of \$413, or \$1,387. 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.

Summary of Farm Inventories, 1937

Items	Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
Size of farm (acres)	_____	204	300	149
Size of business (days of prod. work) (1)	_____	623	891	482
Average farm inventory (without house)	_____	\$17,000	\$23,382	\$14,321
Land	_____	7,259	9,651	6,033
Farm improvements	_____	3,932	5,329	3,724
Machinery and equipment (total)	_____	1,827	2,488	1,447
General machinery and equipment	_____	1,175	1,544	857
Tractor	_____	325	511	251
Truck and trailer	_____	54	66	81
Auto (farm share)	_____	244	331	231
Gas engine (farm share)	_____	11	13	14
Electrical equipment (farm share)	_____	18	23	13
Miscellaneous supplies	_____	17	20	18
Feeds and seeds	_____	1,311	1,972	1,034
Horses (total)	_____	548	705	558
Horses	_____	487	623	483
Colts	_____	61	82	75
Productive livestock (total)	_____	2,106	3,217	1,507
Cows	_____	1,080	1,608	724
Other cattle	_____	574	999	407
Hogs	_____	238	310	190
Sheep	_____	91	159	61
Poultry	_____	123	141	125

(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)	Acres	2.1
Other cattle	Animal unit*	7.6	Corn for grain (husked. & shred.)	"	2.8
Sheep	Animal unit*	2.7	Corn for silage	"	2.6
Poultry	100 hens	20.1	Corn hogged	"	1.25
Hogs	(100 lbs. produced)	.55	Corn for fodder	"	1.8
Turkeys	(produced)	.8	Sweet corn	"	3.0
Alfalfa	Acres	1.5	Potatoes	"	6.4
Tame & wild hay	"	.6	Sugar beets	"	4.0
Small grain & flax	"	1.0			
Small grain hogged	"	.4			
Green peas	"	2.5			

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

Summary of Farm Earnings, 1937

Items	Your Farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
CASH EXPENSES				
Tractor (new & exp.)	\$ _____	\$167	\$288	\$68
Truck and trailer (new & exp.)	_____	27	41	24
Auto (new & exp.) (farm share)	_____	157	191	76
Gas engine (new & exp.) (farm share)	_____	5	10	3
Electricity (new & exp.) (farm share)	_____	37	47	46
Machinery and equipment (new)	_____	211	273	155
Machinery and equipment (exp.)	_____	59	68	71
Buildings, fences, tiling (new)	_____	169	212	78
Buildings, fences, tiling (exp.)	_____	49	93	30
Hired labor	_____	208	381	140
Feed for livestock	_____	324	372	274
Other expense for livestock	_____	67	60	63
Horses bought	_____	28	32	19
Cows bought	_____	84	25	96
Other cattle bought	_____	121	153	197
Hogs bought	_____	27	12	44
Sheep bought	_____	11	18	0
Poultry bought	_____	48	55	47
Crop (seed, twine, spray)	_____	140	191	89
Taxes and insurance	_____	224	307	196
General farm	_____	25	28	26
(1) Total cash expense	_____	2,188	2,857	1,742
(2) Decrease in farm inventory	_____	-	-	-
(3) Board for hired labor	_____	99	175	67
(4) Total expense (sum of (1),(2)&(3))	_____	2,286	3,032	1,809
CASH RECEIPTS				
Horses	_____	11	1	18
Cows	_____	176	227	184
Dairy products	_____	1,191	1,407	1,006
Other cattle	_____	287	448	239
Hogs	_____	554	753	340
Sheep	_____	89	168	41
Poultry	_____	204	363	71
Eggs	_____	259	300	297
Small grain	_____	479	810	224
Corn	_____	48	64	27
Hay	_____	26	42	19
Root crops	_____	0	1	0
Other crops	_____	62	144	29
Miscellaneous	_____	117	50	69
Income from work off the farm	_____	145	383	59
Agricultural Conservation payments	_____	176	295	112
(5) Total cash receipts	_____	3,824	5,456	2,735
(6) Increase in farm inventory	_____	780	1,309	348
(7) Farm produce used in house	_____	332	438	284
(8) Total receipts (sum of (5) & (6))	_____	4,936	7,203	3,367
Total expenses (4)	_____	2,286	3,032	1,809
(9) Ret. to cap. & fam. labor (8) minus (4)	_____	2,650	4,171	1,558
(10) Interest on farm inventory	_____	850	1,169	716
(11) Family labor earnings (9) minus (10)	_____	1,800	3,002	842
(12) Unpaid family labor	_____	413	635	256
(13) Oper. labor earnings (11) minus (12)	_____	1,387	2,367	586

Summary of Farm Earnings, 1937 (A)

Items	Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
EXPENSES AND NET DECREASES				
Total power	\$ _____	\$527	\$722	\$453
Hired	_____	75	80	54
Tractor	_____	97	136	88
Truck and trailer	_____	32	40	53
Auto (farm share)	_____	117	140	100
Gas engine (farm share)	_____	8	16	8
Elec. plant or current (farm share)	_____	36	47	43
Horses	_____	162	363	107
General machinery and equipment	_____	169	182	200
Buildings, fencing, tiling	_____	115	132	116
Productive livestock misc. expense	_____	44	44	44
Crop	_____	85	122	53
Real estate taxes	_____	187	257	164
Personal property tax	_____	16	24	14
Insurance	_____	21	26	18
General farm	_____	25	28	26
Hired labor & board, & unpaid family labor	_____	719	1,191	463
Interest on farm inventory	_____	850	1,169	716
(1) Total	_____	2,758	3,897	2,267
RETURNS AND NET INCREASES				
All productive livestock	_____	3,138	4,532	2,310
Cows	_____	1,505	1,948	1,205
Other cattle	_____	559	990	330
Hogs	_____	523	745	367
Sheep	_____	87	169	39
Chickens	_____	342	426	368
Turkeys	_____	122	254	1
Crops, feed, vegetables and fuel	_____	654	1,118	336
Agricultural Conservation payments	_____	176	295	112
Miscellaneous	_____	32	36	36
Income from work off the farm	_____	145	283	59
(2) Total	_____	4,145	6,264	2,853
Total expenses (1)	_____	2,758	3,897	2,267
(3) Oper. labor earnings (2) minus (1)	_____	1,387	2,367	586

(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 5.

ANALYSIS OF THE REASONS FOR DIFFERENCES IN OPERATOR'S EARNINGS

The financial statement on the preceding pages shows that there is a wide range in earnings. The average operator's labor earnings for the ten most profitable farms was \$2,367, and for the ten least profitable farms \$586. The difference between the averages for these two groups was \$1,781. 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 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	Average	No. of farms	Average operator's labor earnings
Below 185	170	4	\$1,012
185 - 284	227	22	1,321
285 and above	330	4	2,127

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	Average	No. of farms	Average operator's labor earnings
Below \$25	\$11.36	8	\$1,072
\$25 - \$69	45.81	15	1,233
\$70 and above	95.67	7	2,078

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 Crop Yields to Farm Earnings

Per cent crop yields were of the average for all the 30 farms Group	Average	No. of farms	Average operator's labor earnings
Below 90	79	8	\$733
90 - 109	100	15	1,622
110 and above	124	7	1,631

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 4. Relation of Choice of Crops to Farm Earnings

Per cent of tillable land in high return crops*		No. of farms	Average operator's labor earnings
Group	Average		
Below 36.0	25.3	7	\$1,070
36.0 - 47.9	38.7	15	1,477
48.0 and above	49.6	8	1,497

*Crops are marked on page 12 as (A), (B), (C), and (D). All of acres in (A) crops, one-half of acres in (B) crops, and one-fourth of acres in (C) crops are used in calculating per cent of tillable land in high return crops.

As a rule, on these farms, such crops as alfalfa, clover, 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 5. 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 400	334	7	\$877
400 - 799	559	15	1,153
800 and above	997	8	2,321

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 6. 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 220	205	5	\$822
220 - 319	262	19	1,291
320 and above	364	6	2,164

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 7. Relation of Power, Machinery and Building Expense to Farm Earnings*

Expense per day of productive work Group	Average	No. of farms	Average operator's labor earnings
\$2.00 and above	\$2.43	3	\$445
\$1.00 - \$1.99	1.26	23	1,394
Below \$1.00	.88	4	2,053

*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 8.

Table 8. 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
Six	2	_____	XX	\$3,450
Five	4	_____	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1,856
Four	7	_____	XXXXXXXXXXXXXXXXXXXX	1,431
Three	8	_____	XXXXXXXXXXXX	1,069
Two	9	_____	XXXXXXXXXX	970

This array in Table 8 indicates that it will be worth while for each co-operator to study carefully his ranking on pages 10 and 11, and learn his standing in respect to each of the above factors and the elements of strength and weakness in his farm business.

Measure of Farm Organization and Management Efficiency, 1937

Measures used in chart on page 11	Your farm	Average of 30 farms	10 most profit- able farms	10 least profit- able farms
Operator's Labor Earnings	\$ _____	\$1,387	\$2,367	\$586
(1) Pounds of butterfat per cow	_____	233	229	216
(2) Return over feed (pr.lvst.other than cows)*\$	\$ _____	\$48.26	\$65.55	\$34.68
(3) Crop yields**	_____	. 100	106	96
(4) % of tillable land in high return crops***	_____	39.8	38.6	38.4
(5) Size of business--days of productive work	_____	623	891	482
(6) Days of productive work per worker	_____	273	293	267
(7) Power and eq. exp. per day of prod. work	\$ _____	\$1.32	\$1.18	\$1.57

Measures and items related to some of the above measures:

(2) Return over feed per head other cattle	\$ _____	\$12.50	\$15.10	\$9.65
Return over feed per 100 lbs. hogs prod.	_____	2.26	2.24	1.58
Return over feed per hen	_____	.87	1.27	.84
Return over feed per head sheep	_____	3.75	3.75	3.11
(6) Days of productive work on crops	_____	191	278	141
Days of productive work on prod. livestock	_____	384	519	321
Days of other productive work	_____	48	94	20
(7) Total number of workers	_____	2.3	3.1	1.9
Number of family workers	_____	1.8	2.2	1.5
Number of hired workers	_____	.5	.9	.4
(8) Power expense per day of productive work	\$ _____	.86	.81	.96
Mach. & equip.exp.per day of prod. work	_____	.27	.20	.38
Bldg. & fencing exp. per day of prod.work	_____	.19	.17	.23

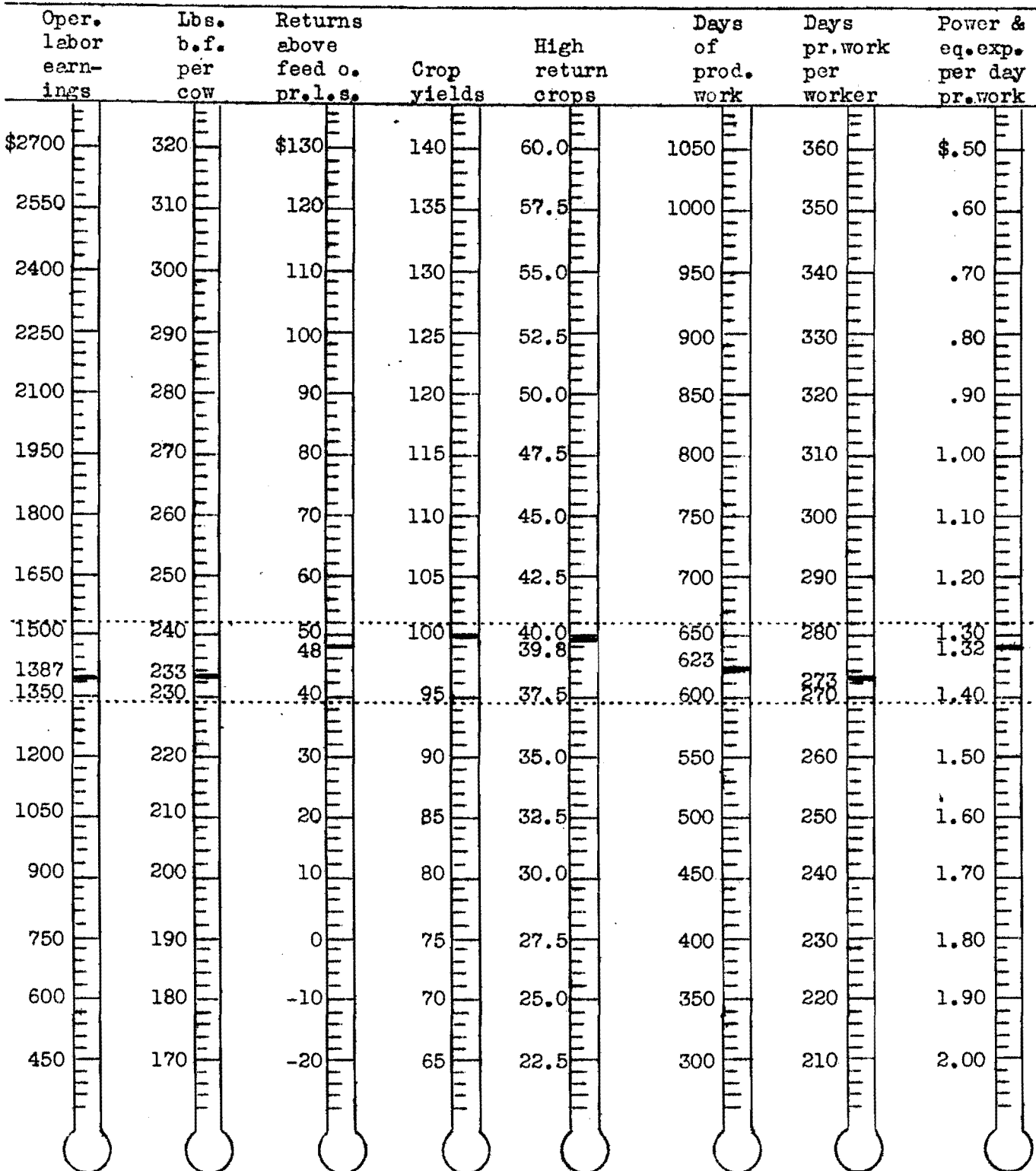
*Given as returns over feed cost per animal unit of productive livestock other than cows.

**Given as a percentage of the average.

***Crops are marked on page 12 as (A), (B), (C) and (D). All of acres in (A) crops, one-half of acres in (B) crops, and one-fourth of acres in (C) crops are used in calculating per cent of tillable land in high return crops.

Thermometer Chart

Using your figures from page 10, locate your standing with respect to the various measures of farm organization and management efficiency. The averages for 30 farms included in this summary are located between the two dotted lines across the center of this page.



Distribution of Acres in Farm, 1937

Crop (A), (B), (C) and (D) refer to ranking used in calculating % of tillable land in High Return Crops (see page 10)	No. of farms growing this crop	Your farm	Aver- age of 30 farms	10 most profit- able farms	10 least profit- able farms
Winter wheat	(B) 7	_____	2.7	4.4	2.9
Spring wheat	(C) 19	_____	8.7	9.6	10.4
Oats	(D) 26	_____	21.8	35.3	15.7
Barley	(B) 25	_____	20.4	32.6	7.7
Rye	(D) 7	_____	2.3	3.4	1.0
Flax	(B) 6	_____	2.2	5.6	.1
Wheat and oats	(C) 2	_____	.9	1.0	0
Oats and barley	(C) 4	_____	3.7	10.3	.7
Miscellaneous	(C) 2	_____	.7	0	1.0
Total grain and peas			63.4	102.2	39.5
Corn, grain	(B) 30	_____	24.3	36.1	19.1
Corn, silage	(C) 26	_____	11.6	17.3	8.0
Corn, fodder	(D) 14	_____	2.8	.8	3.9
Sweet corn	(B) 1	_____	.2	0	.5
Total cultivated crops			38.9	54.2	31.5
Alfalfa	(A) 30	_____	18.4	23.8	13.9
Other legumes & mix.	(C) 5	_____	2.2	0	5.1
Timothy	(D) 1	_____	.2		.6
Annual hay (millet, sudan gr., sm. grain, etc.)	(D) 3	_____	.2		.4
Miscellaneous hays and seed crops	(C) 5	_____	2.3	1.3	2.4
Phalaris (non-tillable land)	1	_____	1.2	3.5	0
Wild hay (non-tillable land)	22	_____	14.5	24.8	9.8
Total hay			39.0	53.4	32.2
Total crop acreage			141.3	209.8	103.2
Sweet clover pasture	(B) 8	_____	5.3	7.8	0
Alfalfa pasture	(A) 4	_____	.6	.7	.1
Red clover or rape pasture (hogs)	(B) 1	_____	.3	0	0
Miscellaneous legume pasture	(C) 3	_____	1.5	4.3	.1
Other tillable pasture	(D) 6	_____	5.2	14.7	0
Non-tillable pasture	26	_____	31.0	36.6	30.9
Total pasture			43.9	64.1	31.1
Tillable land not cropped	3	_____	.3		0
Timber (not pastured)	8	_____	2.9	7.1	1.5
Roads and waste		_____	8.7	11.0	7.4
Farmstead		_____	6.8	8.3	6.1
Total acres in farm			204.0	300.3	149.3
% of land tillable			68.3	72.9	62.9
% of tillable land in high return crops			39.8	38.6	38.4

Yield of Crops and Amount of Livestock, 1937

Yield of crops per acre	Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
Winter wheat, bu.	_____	26.1	25.5	26.0
Spring wheat, bu.	_____	24.3	22.5	25.0
Oats, bu.	_____	47.3	52.3	44.0
Barley, bu.	_____	31.6	32.3	26.0
Rye, bu.	_____	23.7	23.5	14.5
Flax, bu.	_____	10.9	10.2	16.0
Wheat and oats, bu.	_____	38.6	35.0	-
Oats and barley, bu.	_____	40.2	40.4	39.3
<hr/>				
Corn, grain, bu.	_____	35.7	38.2	33.8
Corn, silage, tons	_____	6.9	6.6	7.6
Corn, fodder, tons	_____	2.4	1.8	2.2
Sweet corn, tons	_____	2.2	-	
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Alfalfa, tons	_____	1.9	1.9	2.1
Clover and timothy, tons	_____	1.7	-	1.9
Timothy hay, tons	_____	.5	-	.5
Phalaris hay, tons	_____	3.7	3.7	-
Wild hay, tons	_____	1.3	1.1	1.4
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AMOUNT OF LIVESTOCK				
No. of horses	_____	4.2	5.1	3.8
No. of colts	_____	.7	1.0	.9
No. of cows	_____	14.8	19.1	12.6
No. of cows per worker	_____	6.7	6.4	7.0
<hr/>				
Head of other cattle	_____	16.6	26.5	12.8
Litters of pigs raised	_____	3.9	5.1	3.3
Pounds of hogs produced	_____	6,157	8,718	4,605
Head of sheep (2 lambs equal 1 head)	_____	12.6	23.8	6.5
No. of hens	_____	140	153	164
<hr/>				
Total no. of prod. livestock animal units	_____	29.7	41.8	24.2
No. of prod.lvst. animal units per 100 A.	_____	15.3	14.8	16.8
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% of tot.prod.lvst.units that are cows	_____	52.3	49.4	52.7
% of tot.prod.lvst.units that are o.cattle	_____	28.1	30.7	27.9
% of tot.prod.lvst.units that are hogs	_____	8.7	7.6	9.7
% of tot.prod.lvst.units that are sheep	_____	4.2	4.9	3.3
% of tot.prod.lvst.units that are hens	_____	5.3	4.8	6.4
% of tot.prod.lvst.units that are turkeys	_____	1.4	2.6	0
<hr/>				
Number of farms with tractors		16	8	5

Factors or Cost and Returns in Dairy Production, 1937

Items	Your farm	Average of 30 farms	10 farms highest in B.F. per cow	10 farms lowest in B.F. per cow
Pounds of butterfat per cow	_____	233	286	186
Feeds per cow, lbs.:				
Corn	_____	147	239	114
Small grain	_____	901	1,402	661
Com. feeds - under 25% protein	_____	33	64	8
Com. feeds - over 25% protein	_____	71	130	37
Tame hay	_____	439	219	512
Alfalfa	_____	2,830	3,125	2,173
Wild hay	_____	858	546	1,464
Corn fodder	_____	629	404	990
Silage	_____	6,430	7,498	3,952
Total concentrates	_____	1,152	1,835	820
Total dry roughage	_____	4,756	4,294	5,139
Total digestible nutrients	_____	4,107	4,761	3,334
Total digest. nutrients per lb. B.F.*	_____	17.6	16.6	18.2
% protein in ration	_____	13.2	13.7	12.2
% cows fresh - Sept. to Dec., inclusive	_____	58.0	58.2	52.8
Feed cost per cow:				
Concentrates	\$ _____	\$14.04	\$23.35	\$9.05
Roughages	_____	25.32	26.03	21.48
Pasture	_____	5.59	5.21	6.11
TOTAL FEED COSTS	\$ _____	\$44.95	\$54.59	\$36.64
Value of produce per cow:				
B. F. sales	\$ _____	\$80.74	\$108.28	\$57.46
Dairy produce used in house	_____	5.12	4.23	4.91
Milk to other livestock	_____	12.96	13.16	15.55
Appreciation or depreciation	_____	1.62	.46	2.82
TOTAL VALUE OF PRODUCT	\$ _____	\$100.44	\$126.13	\$80.74
RETURNS ABOVE FEED COST PER COW	\$ _____	\$55.49	\$71.54	\$44.10
Price received per lb. B.F. sold:				
As manufacturing cream	\$ _____	\$.39	\$.41	\$.38
As market milk & cream & cheese milk	_____	.54	.47	.53
Feed cost per lb. B.F.	_____	.19	.19	.20
Number of cows**	_____	14.8	16.0	14.8

*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. 1937

Items	Your farm	Average of all farms	Farms highest in returns above feed per head	Farms lowest in returns above feed per head
Other cattle; no. of farms:		30	10	10
Feeds used per head, lbs.:				
Concentrates	_____	189	112	377
Hay and fodder	_____	1,260	997	1,531
Silage	_____	1,791	914	2,896
Whole milk	_____	422	253	592
Skimmilk	_____	1,264	1,419	1,175
Feed cost per head:				
Concentrates	\$ _____	\$2.20	\$1.37	\$4.21
Roughages	_____	6.47	4.39	9.05
Milk	_____	8.12	6.41	11.15
Pasture	_____	2.02	1.51	2.24
TOTAL	\$ _____	\$18.81	\$13.68	\$26.65
RETURNS PER HEAD	\$ _____	\$31.31	\$41.27	\$25.16
RETURNS ABOVE FEED COST PER HEAD	\$ _____	\$12.50	\$27.59	\$-1.49
% death loss	_____	5.2	4.7	5.3
Lbs. of butterfat per cow	_____	233	246	229
Number of head of young cattle	_____	16.6	14.5	21.1
Sheep; no. of farms:		7	3	3
Feeds used per head,* lbs.:				
Concentrates	_____	68	40	98
Tame hay	_____	61	0	122
Alfalfa	_____	120	96	165
Corn fodder and wild hay	_____	113	137	107
Silage	_____	113	107	78
Feed cost per head:				
Concentrates	\$ _____	\$.81	\$.47	\$ 1.20
Roughages	_____	1.13	.92	1.40
Pasture	_____	.90	.94	.91
TOTAL	\$ _____	\$2.84	\$2.33	\$3.51
Value of production per head:				
Wool	\$ _____	\$2.14	\$1.94	\$2.34
Mutton	_____	4.45	5.73	3.50
TOTAL	\$ _____	\$6.59	\$7.67	\$5.84
RETURNS ABOVE FEED COST PER HEAD	\$ _____	\$3.75	\$5.34	\$2.33
Price per lb. wool sold	\$ _____	\$.32	\$.31	\$.34
Value per lamb sold	_____	6.89	6.81	\$7.07
% lamb crop	_____	120.7	131.0	117.3
% death loss	_____	8.9	6.3	10.0
No. of head of sheep*	_____	53.8	57.2	62.8

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

Feed Costs and Returns for Hogs and Turkeys, 1937

Items	Farms		Farms	
	Your Farm	Average of all farms	highest in returns above feed	lowest in returns above feed
Hogs; no. of farms:				
		27	9	9
Lbs. of feed per 100 lbs. hogs produced:				
Corn	_____	214	161	279
Small grain	_____	212	175	265
Commercial grain feeds	_____	8	2	8
Total grain and commercial feeds	_____	434	338	552
Tankage	_____	1	1	1
Skimmilk	_____	450	371	684
Cost of feed per 100 lbs. hogs produced:				
Grain and commercial feeds	\$ _____	\$5.27	\$3.50	\$7.40
Tankage and skimmilk	_____	.72	.59	1.06
Pasture	_____	.09	.08	.06
Total Feed Cost per 100 lbs. Hogs Prod.	\$ _____	\$6.08	\$4.17	\$8.52
RETURNS PER 100 LBS. HOGS PRODUCED	\$ _____	\$8.34	\$8.67	\$7.88
RET. ABOVE FEED COST PER 100# HOGS PROD.\$	_____	\$2.26	\$4.50	\$-.64
Price received per 100 lbs. hogs sold	\$ _____	\$9.14	\$9.27	\$8.91
Number of farms with litters	_____	22	9	5
Total no. of litters	_____	4.4	7	2
Total no. of pigs weaned per litter	_____	6.4	6.1	6.3
% of two-litter system	_____	11.7	15.5	20.0
% of first-litter sows	_____	76.8	83.8	63.8
Pounds of hogs produced	_____	6,767	9,730	3,951
Turkeys; no. of farms:				
		6	3	3
Lbs. of feed per 100 lbs. turkeys produced:				
Grain	_____	722	477	967
Grain by-products	_____	40	36	43
Tankage and meat scraps	_____	25	43	8
Other commercial feeds	_____	52	37	66
Total concentrates	_____	839	593	1,084
Skimmilk	_____	261	20	502
COST OF FEED PER 100 LBS. TURKEYS PRODUCED	\$ _____	\$10.49	\$7.90	\$13.09
Value of product per 100 lbs. turkeys prod.:				
Eggs	\$ _____	\$2.34	\$1.07	\$3.61
Turkeys	_____	20.76	23.50	18.02
TOTAL	\$ _____	\$23.10	\$24.57	\$21.63
RETURNS ABOVE FEED COST PER 100 LBS. TURKEYS PRODUCED	\$ _____	\$12.61	\$16.67	\$8.54
Price received per lb. turkey sold, cents	_____	24.8	25.6	23.9
Pounds of turkeys produced	_____	2,363	3,194	1,531

Feed Costs and Returns for Chickens. 1937

Items	Your Farm	Average 28 farms	9 farms highest in returns above feed per hen	9 farms lowest in returns above feed per hen
Lbs. of feed per hen:				
Concentrates	_____	84	99	87
Skim milk	_____	74	73	90
Cost of feed per hen:				
Concentrates	\$ _____	\$1.33	\$1.61	\$1.34
Skim milk	_____	.11	1.12	.14
TOTAL	\$ _____	\$1.44	\$1.73	\$1.48
Value of product per hen:				
Eggs sold and used in house	\$ _____	\$1.83	\$2.49	\$1.25
Poultry sold and used in house plus appreciation or less depreciation	_____	.48	1.08	.15
TOTAL	\$ _____	\$2.31	\$3.57	\$1.40
RETURNS ABOVE FEED COST PER HEN	\$ _____	\$.87	\$1.84	\$.08
Price received per dozen eggs sold (cts.)	_____	18.2	18.3	18.4
Eggs laid per hen	_____	123	166	83
No. of hens	_____	150	168	118
% of hens that are pullets	_____	30	33	30
% death loss of hens	_____	16	7	22

Feed Costs per Horse and Other Power Expense Items. 1937

Items	Your farm	Average	Most profitable farms	Least profitable farms
Number of farms:		30	10	10
Feed per horse,* lbs.:				
Grain	_____	1,591	1,728	1,326
Tame hay and alfalfa	_____	1,160	1,036	1,569
Wild hay and fodder	_____	3,717	3,621	3,267
Feed costs per horse:				
Grain	\$ _____	\$17.75	\$19.74	\$15.35
Roughage	_____	12.39	12.34	12.71
Pasture	_____	2.97	3.02	3.36
Total	\$ _____	33.11	35.10	31.42
Number of work horses	_____	4.2	5.1	3.8
Number of colts	_____	.7	1.0	.9
Total acres in farm	_____	204	300	149
Crop acres per horse	_____	35	42	30
Tractor and horse exp. per crop acre	\$ _____	\$1.88	\$2.10	\$2.00
Farm power expense per day of prod. work	_____	.86	.81	.96

*Two colts equal one horse.

Distribution of Farm Produce Used in House. 1937

	Quantities			Value				
	Your farm	Average of 30 farms	10 most profitable	10 least profitable	Your Farm	Average of 30 farms	10 most profitable	10 least profitable
Whole milk	_____	1,384 qts.	1,758	1,111	\$ _____	\$47.64	\$59.26	\$37.94
Skimmilk	_____	94 qts.	0	144	_____	.30	0	.46
Cream	_____	180 pts.	175	223	_____	21.82	21.33	27.66
Eggs	_____	185 doz.	245	169	_____	33.04	43.81	30.25
Poultry	_____	19 head	17	24	_____	11.73	14.60	11.84
Cattle	_____	355 lbs.	600	266	_____	23.30	36.55	20.04
Hogs	_____	532 lbs.	609	506	_____	47.98	56.43	42.44
Sheep	_____	21 lbs.	54	0	_____	1.10	2.60	0
Potatoes	_____	19 bu.	23	17	_____	15.44	18.48	13.44
Vegetables & fruit	_____	-	-	-	_____	63.37	84.80	47.76
Farm fuel	_____	7 cds.	11	5	_____	66.71	100.20	52.35
Total					\$ _____	\$332.43	\$438.06	\$284.18
Average value of farm dwelling					\$ _____	\$2,262	\$3,040	\$1,970
Interest and depreciation on farm dwelling					_____	156	212	139

Distribution of Household and Personal Expenses for Those Farms which Kept Complete Accounts of These Expenses. 1937

	Your farm	Average 30 farms	10 most profitable	10 least profitable
Number of persons - family	_____	4.1	4.9	3.7
Number of persons,) Family	_____	3.3	4.1	2.8
adult equivalent) Other*	_____	.7	1.0	.4
Food	\$ _____	\$310.87	\$368.91	\$299.66
Operating and supplies	_____	92.43	115.72	73.79
Furnishing and equipment	_____	100.11	162.41	86.58
Clothing and materials	_____	103.59	129.12	90.52
Health	_____	86.93	71.31	47.72
Development and recreation	_____	96.59	165.98	66.17
Personal	_____	77.49	99.49	81.15
Life insurance and savings	_____	72.21	95.04	51.44
Personal share of auto expense	_____	62.84	99.75	35.21
Housing	_____	11.37	10.63	11.58
Total Household & Personal Cash Exp. \$	_____	\$1,014.43	\$1,318.36	\$843.82
Food furnished by the farm	_____	265.67	337.81	231.73
Fuel furnished by the farm	_____	66.71	100.20	52.35
Interest and deprec.on farm dwelling	_____	155.98	212.14	138.99
Interest and deprec.on misc.items**	_____	77.86	117.38	57.47
Total Household & Personal Expenses \$	_____	\$1,580.65	\$2,085.89	\$1,324.36

*Hired help or others boarded.

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