



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.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

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

---0---

Annual Report
of the
Southeastern Minnesota
Farm Management Service
1940

---0---

Cooperator: _____

Mimeographed Report No. 120
Division of Agricultural Economics
University Farm
St. Paul, Minnesota
March 1941

Thirteenth Annual Report of the Farm Management Service of
Dakota, Dodge, Freeborn, Goodhue, Le Sueur, Mower, Nicollet,
Olmsted, Rice, Scott, Steele, Wabasha and Waseca Counties
for the Year 1940

Prepared by T. R. Nodland and G. A. Pond

INDEX

	<u>Page</u>
Introduction	1
Summary of Farm Inventories	4 & 5
Amount of Livestock	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	10
Measures of Farm Organization and Management Efficiency	12
Thermometer Chart	13
Distribution of Acres in Farm	14
Yield of Crops	15
Feed Costs and Returns from Dairy Cows	16
Feed Costs and Returns from Other Dairy Cattle	17
Feed Costs and Returns from All Dairy Cattle	17
Feed Costs and Returns from Milk and Beef Cows	18
Feed Costs and Returns from other Milk and Beef Cattle	19
Feed Costs and Returns from All Milk and Beef Cattle	19
Feed Costs and Returns from the Beef Breeding Herd	20
Feed Costs and Returns from Feeder Cattle	20
Feed Costs and Returns from Native Sheep	21
Feed Costs and Returns from Feeder Sheep	21
Feed Costs and Returns from Hogs	22
Feed Costs and Returns from Chickens	22
Feed Costs and Returns from Turkeys	23
Feed Costs for Horses and Other Power Expense Items	23
Farm Produce Used in House and House Rental	24
Household and Personal Expenses	24
Miscellaneous Information - Averaged by Counties	25
Summary of Farm Earnings 1928-1940	26 & 27
Comparison of Various Items with Previous Years	27 & 28
Notes	29

INTRODUCTION

The Division of Agricultural Economics and the Division of Agricultural Extension of the University of Minnesota, the Bureau of Agricultural Economics of the United States Department of Agriculture, and the county extension services of Dodge, Freeborn, Goodhue, Rice, Steele and Waseca Counties organized late in 1927 the Farm Management Service Project, to operate in the above named counties, beginning January 1, 1928. Additional counties have since 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

Note: Assistance in the preparation of this material was furnished by workers supplied on N.Y.A. Student Work Project No. 0061-100.
Sponsor: University of Minnesota

in this service pays an annual fee which covers a part of the cost. The following tabulation shows by counties the number of records submitted in 1940:

Dakota	8	Mower	9	Steele	16
Dodge	10	Nicollet	17	Wabasha	4
Freeborn	19	Olmsted	13	<u>Waseca</u>	<u>15</u>
Goodhue	17	Rice	11		
Le Sueur	5	Scott	8	Total	152

The tables on page 4 and succeeding pages show 148 farms. Four farms have been omitted from all of the averages in the tables because they differed so widely in type from the others or were not complete enough for analysis.

General administration of this project, analysis of the records and preparation of the reports is handled by the Division of Agricultural Economics under the direction of G. A. Pond and T. R. Nodland. Field organization is handled by the Agricultural Extension Division with S. B. Cleland and J. B. McNulty in charge of this work. At the end of the year the following members of the Division of Agricultural Economics aided in closing the records: A. W. Anderson, S. A. Engene, A. W. Epp, G. E. Toben, and Geo. Wilkens. County agricultural extension agents who cooperate in this project include H. Lawrenz, V. Sander, W. M. Lawson, G. J. Kunau, R. D. Evans, F. L. Liebenstein, E. Nelson, R. Aune, D. Marti, W. W. Miller, J. R. Gute, S. B. Simpson and C. F. Murphy.

The Southeast Minnesota Farm Management Association was organized in 1939 by the farmers cooperating in the S. E. Farm Management Service. This association now represents its membership as an additional cooperating agency to determine policies and especially to maintain the field organization and membership. Officers for 1940 were:

President, Stanley Newhall, Owatonna, Steele County;
Vice President, H. B. Hillier, Brownsdale, Mower County;
Secretary-Treasurer, Otto Kajer, New Prague, Le Sueur County.

The board of directors included these officers and also the following: Charles Flugum, Freeborn County; Wm. G. Frame, Dakota County; John Holmes, Rice County; R. C. Johnson, Nicollet County; Joe Rostad, Goodhue County; Fred Scholljegerdes, Waseca County; John Vaughn, Scott County; and Leslie Wright, Dodge County.

TYPE OF FARMING

Most of the farms are 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 seed crops are grown to a limited extent as cash crops.

This report shows that the receipts from sales of dairy products constituted about twenty-five per cent, and the receipts from hog sales about sixteen per cent of the average cash income of 148 cooperators included in this report. These farms are fairly typical of the system of dairy farming prevailing in southeastern Minnesota.

WEATHER, SOIL AND TOPOGRAPHY

Weather conditions were rather uniform in this area in 1940. Temperatures in April and May were below normal and small grains got an excellent start even though precipitation was also somewhat below normal. Yields were the highest of any year of this study. Fairly high temperatures in June and July with ample summer rainfall resulted in the highest corn yields of any year except 1939. Hay yields because of low rainfall in the spring and wet weather losses in curing the second crop were slightly below normal.

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

RECORDS KEPT

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

The cooperators were assisted and supervised in keeping their records by the field agent, Glen Myers, who visited each farm in the thirteen counties several times during the year. In addition to securing the supplementary information, the field agent's duties included numerous services, viz., securing a monthly list of prices of farm products prevailing in the area, 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 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 and summarized. For the purpose of comparison, the earnings as shown in this report are computed as if each farm were owned by its operator; however, each tenant is supplied a statement of his earnings on the basis of the rental system under which he is operating.

Summary of Farm Inventories (Beginning of Year), 1940

Items	Your farm	Average of 148 farms	30 most profitable farms	30 least profitable farms
Size of farm (acres)		224.6	300.3	205.7
Size of business (work units)*		658	876	546
Horses	\$	\$ 449	\$ 565	\$ 407
Productive livestock (total)		2,764	3,957	2,314
Dairy and milk - beef cows		1,061	1,343	1,064
Other dairy & milk - beef cattle		572	647	560
Beef cattle (including feeders)		389	1,034	80
Hogs		398	521	360
Sheep (including feeders)		112	225	92
Poultry (including turkeys)		232	187	158
Crop, seed, and feed		2,016	2,912	1,537
Mach. & equipment (total)		2,575	3,081	2,360
Power mach. (f. share)		906	1,209	764
Crop & gen. mach. (f. share)		1,211	1,446	1,157
Livestock equip. & supplies		458	426	439
Buildings, fences, etc.		6,418	6,793	6,680
Land		9,313	12,503	7,319
Total farm capital		23,535	29,811	20,617

* Explanation of term: "Work units."

The total "work units" for any one farm is a measure of size of that farm business. It is the accomplishment of a farm worker in a ten-hour day working on crops and productive livestock at average efficiency.

The number of work units for each animal and each acre of crops used in this report are listed as follows:

Item	Per	No. of work units	Item	Per	No. of work units
Dairy and milk -	cow	14.5	Small grain	acre	.8
beef cows			Soybeans for grain	"	1.0
Other dairy & milk -)		4.4	Sugar beets	"	3.0
beef cattle	) animal		Sweet corn	"	2.5
Beef breeding herd	) unit*	4.0	Corn, husked	"	1.7
Sheep - farm flock	)	2.0	Corn, hogged	"	1.1
Hens	100 hens	28.0	Corn, shredded	"	2.8
Feeder cattle	)	.4	Corn silage	"	2.1
Feeder sheep	) 100 lbs.	.5	Corn fodder	"	1.5
Hogs	) produced	.3	Alfalfa hay	"	1.0
Turkeys	)	.7	Soybean hay	"	1.4
Canning peas	acre	2.0	Other hay crop	"	.6

*Animal unit represents one cow, one bull, one feeder steer or heifer, two head of other cattle, seven head of sheep, fourteen lambs, five hogs, ten pigs, 100 hens, or 1,400 lbs. turkeys produced.

Summary of Farm Inventories (End of Year), 1940

Items	Your farm	Average of 148 farms	30 most profitable farms	30 least profitable farms
Horses	\$	\$ 413	\$ 472	\$ 359
Productive livestock (total)		3,158	5,042	2,480
Dairy & milk - beef cows		1,158	1,493	1,145
Other dairy & milk & beef cattle		609	797	563
Beef cattle		592	1,596	154
Hogs		442	645	343
Sheep		143	326	107
Poultry		214	185	168
Crop, seeds, and feed		2,402	3,651	1,626
Mach. & equipment (total)		2,723	3,329	2,561
Power Mach. (f. share)		961	1,272	885
Crop & gen. mach.		1,272	1,601	1,191
Livestock equipment & supplies		490	456	485
Buildings, fences, etc.		6,536	6,993	6,586
Land		9,320	12,504	7,318
Total farm capital		24,552	31,991	20,930

Summary of Amount of Livestock

Items	Your farm	Average of 148 farms	30 most profitable farms	30 least profitable farms
No. of horses		4.1	4.5	3.6
No. of colts		1.0	1.2	1.0
No. of dairy & milk & beef cows		17.1	21.3	16.3
Head of other dairy & milk & beef cattle		17.4	20.7	17.2
Head of cattle kept in beef breeding herd		3.4	6.1	2.4
Head of sheep (2 lambs = 1 head)		18.6	37.1	13.1
No. of hens		197	240	203
Litters of pigs		12.1	16.8	9.0
Pounds of hogs produced		17,671	24,794	13,000
Total no. of prod. livestock animal units		46.1	64.9	38.2
% of total that are dairy & milk - beef cows		40.6	37.8	42.7
% of total that are other dairy & milk - beef cattle		21.8	19.2	24.2
% of total that are in beef breeding herd		3.0	4.6	2.2
% of total that are feeder cattle		4.7	8.8	1.4
% of total that are native sheep		4.6	7.5	5.0
% of total that are feeder sheep		6	8	0
% of total that are hogs		17.9	17.1	17.4
% of total that are turkeys		1.7	0	1.0
% of total that are hens		5.1	4.2	6.1
Number of farms with tractors		130	29	25

Summary of Farm Earnings (Cash Statement), 1940

Items	Your farm	Average of 148 farms	30 most profitable farms	30 least profitable farms
FARM EXPENSES				
Horses bought	\$	\$ 28	\$ 45	\$ 25
Dairy and milk-beef cows bought		39	68	39
Other dairy & milk-beef cattle bought		66	149	57
Beef cattle bought (including feeders)		502	1526	92
Hogs bought		60	95	82
Sheep bought (including feeders)		82	149	2
Poultry bought (including turkeys)		100	62	71
Misc. crop expenses		182	230	166
Feed bought		600	802	486
Power mach.(farm share)(new)		262	372	308
Power mach.(farm share)(upkeep)		342	443	327
Custom work hired		123	131	86
Crop and general mach. (new)		207	352	177
Crop and general mach. (upkeep)		46	63	43
Livestock equipment (new)		89	87	95
Livestock equipment (upkeep)		22	24	18
Misc. livestock expense		78	107	63
Buildings and fencing (new)		352	456	146
Buildings and fencing (upkeep)		84	99	92
Hired labor		404	586	382
Taxes		263	353	247
Insurance		13	18	15
General farm		42	41	43
(1) Total farm purchases		3986	6258	3062
(2) Decrease in farm capital		-	-	-
(3) Board furnished hired labor		141	160	133
(4) Interest on farm capital		1202	1545	1039
(5) Unpaid family labor		269	350	214
(6) Total farm expenses(Sum of (1) to (5))		5598	8313	4448
FARM RECEIPTS				
Horses		48	113	38
Dairy and milk-beef cows		239	359	180
Dairy products		1454	2022	1313
Other dairy and milk-beef cattle		250	277	249
Beef cattle (including feeders)		687	1927	104
Hogs		984	1399	791
Sheep and wool (including feeders)		162	267	58
Poultry (including turkeys)		339	142	170
Eggs		405	425	346
Corn		128	248	107
Small grain		235	419	221
Other crops		250	534	124
Power machinery sold		109	157	111
Crop and gen. mach. sold		42	73	40
Misc.		144	273	64
Income from work off the farm		148	223	38
Agricultural adjustment payments		324	520	244
(7) Total farm sales		5948	9378	4198
(8) Increase in farm capital		1017	2180	313
(9) Farm prod. used in House + house rent		458	512	422
(10) Total farm receipts(7)+(8)+(9)		7423	12070	4933
(6) Total farm expenses		5598	8313	4448
(11) Operator's labor earnings(10)-(6)		1825	3757	485

Summary of Farm Earnings (Enterprise Statement), 1940 (A)

Items	Your farm	Average of 148 farms	30 most profitable farms	30 least profitable farms
<u>EXPENSES AND NET DECREASES</u>				
Total power	\$ _____	\$ 623	\$ 795	\$ 584
Horses	_____	165	207	164
Tractor	_____	177	265	194
Truck	_____	72	86	56
Auto (farm share)	_____	97	111	77
Gas engine (farm share)	_____	6	7	4
Elec. plant or current (farm share)	_____	48	53	49
Hired power	_____	58	66	40
Crop and general machinery	_____	163	190	161
Livestock equipment	_____	71	69	59
Buildings, fencing and tiling	_____	202	238	227
Misc. productive livestock expense	_____	74	102	60
Labor	_____	841	1,131	749
Real estate taxes	_____	232	310	220
Personal property tax	_____	31	43	27
Insurance	_____	13	18	15
General farm	_____	42	41	43
Interest on farm capital	_____	1,202	1,545	1,039
(1) Total expenses & net decreases	_____	3,494	4,482	3,184
<u>RETURNS AND NET INCREASES</u>				
All productive livestock	_____	4,409	6,245	3,339
Dairy and milk - beef cows	_____	1,719	2,349	1,502
Other dairy & milk - beef cattle	_____	530	747	464
Beef breeding herd	_____	81	147	47
Feeder cattle	_____	296	759	40
Hogs	_____	1,000	1,465	717
Sheep - farm flock	_____	93	197	71
Sheep - feeders	_____	18	23	0
Turkeys	_____	196	0	50
Chickens	_____	476	558	448
Crops, seed and feed	_____	271	998	-72
Income from work off the farm	_____	148	223	38
Agricultural conservation payments	_____	324	520	244
Miscellaneous	_____	167	253	120
(2) Total returns & net increases	_____	5,319	8,239	3,669
(1) Total expenses & net decreases	_____	3,494	4,482	3,184
(3) Oper. labor earnings (2) minus (1)	_____	1,825	3,757	485

(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 in 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 30 most profitable farms was \$3,757, and for the 30 least profitable farms \$485. The difference between the averages for these two groups was \$3,272. 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. The more important of these factors and their relationship with earnings are presented in the following tables.

Table 1. Relation of Crop Yields to Farm Earnings

Per cent crop yields were of the average for all 148 farms		No. of farms	Average operator's labor earnings
Group	Average		
Below 85	74	30	\$1,146
85-114	100	85	1,894
115 and above	123	33	2,266

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 2. 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 34.0	28.1	27	\$1,225
34.0-45.9	40.8	87	1,887
46.0 and above	53.6	34	2,144

*Crops are marked on page 14 as (A), (B), (C), and (D). All of acres in (A) crops, one-half of acres in (B) crops, and one-fourth of acres in (C) crops are used in calculating per cent of tillable land in high return crops.

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

Table 3. Relation of Returns From Productive Livestock to Farm Earnings

Index of returns for \$100 feed fed to productive livestock*		No. of farms	Average operator's labor earnings
Group	Average		
Below 86	75	28	\$1,336
86-113	101	94	1,858
114 and above	125	26	2,230

*The index is weighted by the number of animal units of each class of livestock.

The majority of these farms are dairy farms. However, in addition to the dairy herd there is quite an investment in other classes of productive livestock such as beef 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 and livestock constitute the major source of income on these farms. Hence there is a marked relationship between returns for \$100 of feed and operator's labor earnings on these farms. There are a number of reasons for differences among farms in livestock returns. High productivity per animal and economy in the use of feed and labor are important. Other factors of considerable importance are kind of feed used, quality of pastures, balance of ration, degree of sanitation, and kind of shelter and equipment.

Table 4. Relation of Amount of Productive Livestock to Farm Earnings

Productive livestock units per 100 acres*		No. of farms	Average operator's labor earnings
Group	Average		
Below 18.0	15.3	33	\$1,713
18.0-26.9	22.3	81	1,756
27 and above	34.0	34	2,099

*Acres in timber not pastured, roads, waste and farmstead were not included.

On some farms the returns from livestock are so low that they do not cover feed and other costs. Such livestock is unprofitable, especially if there is more than enough to utilize what would otherwise be waste feed. If the livestock is yielding a net return, an increased amount of livestock adds to size of business and the opportunity to increase the farm earnings. Livestock produces manure and aids in keeping up the fertility of the land, and utilizes waste products on the farm. Livestock also helps to provide productive employment throughout the year. Any method that aids in utilizing the available resources to full and efficient capacity should add to the farm income.

Table 5. Relation of Size of Business (Work unit) to Farm Earnings

Days of productive work		No. of farms	Average operator's labor earnings
Group	Average		
Below 500	400	36	\$1,126
500-799	633	79	1,706
800 and above	999	33	2,872

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

Work unit per worker		No. of farms	Average operator's labor earnings
Group	Average		
Below 250	213	38	\$1,303
250-324	282	66	1,887
325 and above	375	44	2,182

More days of productive work accomplished per worker reduces 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, Equipment and Building Expense to Farm Earnings*

Expense per work unit		No. of farms	Average operator's labor earnings
Group	Average		
\$2.00 and above	\$2.47	36	\$1,187
\$1.30-\$1.99	1.61	71	2,015
Below \$1.30	1.03	41	2,056

*Includes building, fencing, all crop machinery and livestock equipment, 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 insofar 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 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	2	_____	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	\$5,478
Six	16	_____	XXXXXXXXXXXXXXXXXXXX	2,806
Five	22	_____	XXXXXXXXXXXXXXX	2,245
Four	30	_____	XXXXXXXXXXXX	1,972
Three	37	_____	XXXXXXXXXX	1,752
Two	24	_____	XXXXXXX	1,151
One	12	_____	XXXXXXX	993
None	5	_____	XX	266

The array in Table 8 indicates that it will be worth while for each cooperator 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, 1940

Measures used in chart on page 13	Your farm	Average of 148 farms	30 most profit- able farms	30 least profit- able farms
Operator's Labor Earnings	\$ _____	\$1,825	\$3,757	\$485
(1) Crop yields*	_____	100	105	91
(2) % of tillable land in high return crops**	_____	41.4	43.9	36.4
(3) Ret. for \$100 feed to prod. livestock***	_____	100	107	92
(4) Prod. livestock units per 100 acres****	_____	23.4	25.1	21.8
(5) Size of business - work units	_____	658	876	546
(6) Work units per worker	_____	292	322	271
(7) Pow., mach., equip., & bldg. exp. per work unit \$	_____	\$1.66	\$1.52	\$1.93

Measures and items related to some of the
above measures:

(3) Index of return for \$100 feed from -				
Dairy cattle	_____	100	112	91
Milk and beef cattle	_____	100	120	99
Beef breeding herd	_____	100	93	82
Feeder cattle	_____	100	93	121
Hogs	_____	100	112	85
Native sheep	_____	100	99	93
Feeder sheep	_____	-	-	-
Turkeys	_____	100	-	104
Chickens	_____	100	103	90
(5) Work units on crops	_____	177	250	147
Work units on productive livestock	_____	431	551	386
Other work units	_____	50	75	13
(6) Total number of workers	_____	2.3	2.7	2.1
Number of family workers	_____	1.5	1.6	1.3
Number of hired workers	_____	.8	1.1	.8
(7) Power expense per work unit	\$ _____	\$.97	\$.95	\$1.09
Crop machinery expense per work unit	_____	.26	.22	.30
Livestock equip. expense per work unit	_____	.10	.08	.11
Bldgs. and fencing exp. per work unit	_____	.32	.27	.44

* Crops are marked on page 14 as (A), (B), (C) and (D). All of acres in (A) crops, one-half of acres in (B) crops, and one-fourth of acres in (C) crops are used in calculating per cent of tillable land in high return crops.

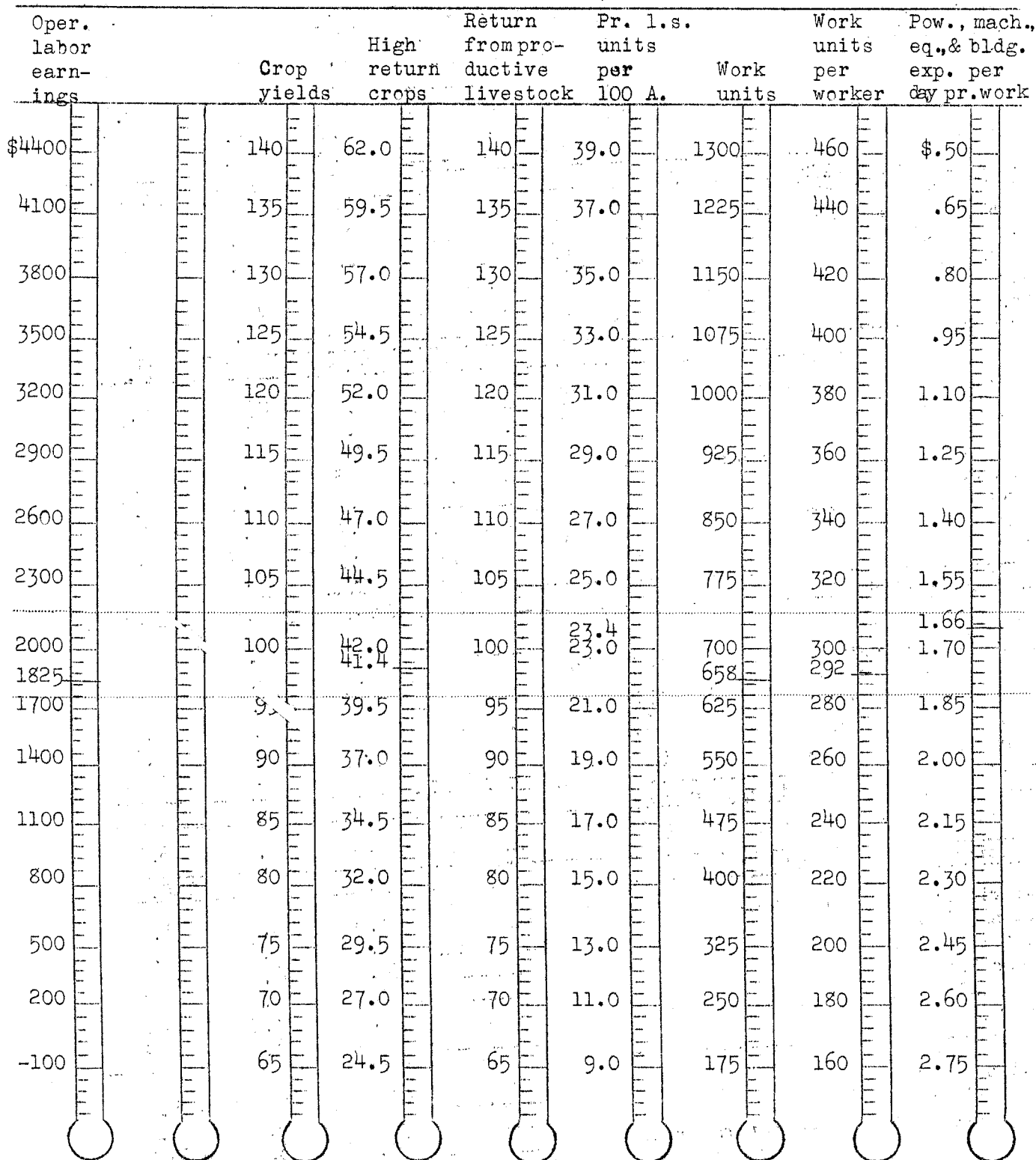
** Given as a percentage of the average.

*** An index weighted by the animal units of livestock.

**** Acres in timber not pastured, roads, waste and farmstead were not included.

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



Distribution of Acres in Farm, 1940

Crop: (A) (B) (C) and (D) refer to ranking used in calculating % of tillable land in High Return Crops (see page 12)	No. growing this crop	Your farm	Average of 148 farms	30 most profit-able farms	30 least profit-able farms
Canning peas	(A) 10	_____	.8	1.8	.3
Flax	(B) 74	_____	7.8	11.2	8.1
Barley	(B) 95	_____	13.4	17.2	11.1
Winter wheat	(B) 52	_____	5.5	7.8	3.8
Spring wheat	(C) 39	_____	2.3	2.6	2.6
Oats and barley	(C) 70	_____	13.7	17.1	5.8
Oats and wheat	(C) 31	_____	2.9	6.2	.5
Oats	(D) 95	_____	14.7	15.3	20.5
Rye	(D) 13	_____	1.1	.6	3.4
Soybeans for grain	(D) 29	_____	1.9	2.0	2.5
Miscellaneous	(D) 12	_____	.6	1.3	.5
Total small grain and peas			64.7	83.1	59.1
Sugar beets, hybrid seed corn, potatoes and truck crops	(A) 70	_____	2.2	6.4	.7
Sweet corn	(B) 17	_____	1.5	3.5	.3
Corn grain	(B) 147	_____	31.3	44.6	24.0
Corn silage	(C) 122	_____	8.4	11.4	6.9
Corn fodder	(D) 30	_____	.9	1.4	1.6
Total cultivated crops			44.3	67.3	33.5
Alfalfa hay	(A) 135	_____	18.2	23.2	15.0
Red clover hay	(B) 24	_____	2.2	2.4	2.4
Soybean hay	(C) 73	_____	4.7	7.1	5.6
Mixed legumes & non-legumes	(C) 37	_____	3.3	3.4	1.8
Legumes for seed	(C) 4	_____	.5	1.6	.3
Timothy and/or brome	(D) 32	_____	1.7	2.1	2.1
Timothy seed	(D) 3	_____	.2	0	.3
Other annual hay	(D) 32	_____	1.3	1.9	1.9
Total tillable land in hay			32.1	41.7	29.4
Alfalfa pasture	(A) 29	_____	1.0	1.0	.4
Sweet clover pasture	(B) 46	_____	3.9	4.4	1.9
Mixture incl. alf., sw. clov., brome	(B) 22	_____	2.7	3.1	3.1
Other legumes and mixtures	(C) 38	_____	5.0	9.7	3.0
Sudan grass pasture	(C) 46	_____	2.1	1.7	2.5
Other tillable pasture	(D) 73	_____	5.8	6.1	2.7
Total tillable land in pasture			20.5	26.0	13.6
Tillable land not cropped	(D) 32	_____	1.8	1.0	3.2
Total tillable land			163.4	219.1	138.8
Phalaris hay (non-tillable)	15	_____	1.3	1.9	1.5
Wild hay (non-tillable)	43	_____	3.3	5.7	1.1
Non-tillable pasture	126	_____	32.7	37.4	42.2
Timber (not pastured)	67	_____	7.1	9.6	6.7
Roads and waste		_____	10.2	18.3	10.2
Farmstead		_____	6.6	8.3	5.2
Total acres in farm			224.6	300.3	205.7
% land tillable			74.1	75.0	70.2
% tillable land in high return crops			41.4	43.9	36.4

Crop Yields per Acre, 1940

Crop	Your farm	Average 148 farms	30 most profitable farms	30 least profitable farms
Canning peas, value above seed cost \$		\$36.26	\$45.02	\$45.03
Flax, bu.		11.0	12.2	10.6
Barley, bu.		41.0	41.2	42.1
Winter wheat, bu.		29.7	33.7	24.8
Spring wheat, bu.		23.3	21.7	24.2
Oats and barley, bu.		54.7	57.3	49.2
Oats and wheat, bu.		49.5	46.5	61.3
Oats, bu.		58.2	60.6	52.0
Rye, bu.		22.5	27.2	20.6
Soybeans for grain, bu.		15.6	19.4	14.8
Sweet corn, tons		3.5	3.6	2.9
Corn, grain, bu.		56.3	57.9	49.0
Corn silage, tons		9.7	10.0	9.7
Corn fodder, tons		2.9	2.2	2.4
Alfalfa hay, tons		2.3	2.6	2.2
Red clover hay, tons		1.8	1.4	1.5
Soybean hay, tons		1.7	1.8	1.7
Mixed legume & non-legume hay, tons		1.5	1.4	1.3
Legumes for seed, lbs.		143.5	200.6	68.4
Timothy and/or brome hay, tons		1.5	1.7	1.2
Timothy seed, lbs		149.1	-	148.8
Other annual hay, tons		1.4	1.4	1.3
Phalaris hay on non-tillable land, tons		2.0	1.7	1.4
Wild hay, tons		1.5	2.4	2.1

Factors of Cost and Returns From Dairy Cows, 1940

Items	Your farm	Average of 126 farms	25 farms highest in returns above feed	25 farms lowest in returns above feed
Pounds of butterfat per cow	_____	260	315	205
Feeds per cow, lbs.:				
Corn	_____	735	715	840
Small grain	_____	1,164	1,306	1,223
Com. feeds - under 25% protein	_____	88	130	35
Com. feeds - over 25% protein	_____	88	143	70
Legume hay	_____	3,588	3,316	3,841
Other hay	_____	496	431	720
Fodder and stover	_____	432	298	639
Total concentrates	_____	2,075	2,294	2,168
Total dry roughage	_____	4,516	4,045	5,200
Silage	_____	6,334	6,410	6,541
Total digestible nutrients*	_____	4,869	4,826	5,336
T.D.N. per lb. B. F.	_____	19.3	15.3	26.5
% T.D.N. that is protein	_____	14.0	14.3	13.5
Feed cost per cow:				
Concentrates	\$ _____	\$17.08	\$18.92	\$17.51
Roughages	_____	20.81	19.81	22.73
Pasture	_____	5.33	5.49	5.49
TOTAL FEED COSTS	_____	\$43.22	\$44.22	\$45.73
Value of produce per cow:				
B. F. sales	\$ _____	\$84.51	\$115.52	\$61.66
Dairy produce used in house	_____	4.45	4.57	4.62
Milk to livestock	_____	11.12	10.81	9.00
Net increases in value of cows	_____	1.19	4.03	-2.43
TOTAL VALUE PRODUCED	_____	\$101.27	\$134.93	\$72.85
RETURNS ABOVE FEED COST PER COW	\$ _____	\$58.05	\$90.71	\$27.12
RETURNS FOR \$100 OF FEED	\$ _____	\$239	\$316	\$164
Price received per lb. B. F. sold				
As manufacturing cream (cents)	_____	32.6	32.4	32.6
As mkt. mk. & cm. & mk. for cheese (cts.)	_____	44.3	46.4	41.6
Feed cost per lb. B. F. (cents)	_____	17.1	14.0	22.6
% fall freshening	_____	56.0	53.2	47.1
Number of cows**	_____	18.0	21.0	16.4

*Not including nutrients received from pasture.

**All dairy 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 farms.

Feed Costs and Returns From Other Dairy Cattle, 1940

Items	Your farm	Average of 126 farms	25 farms highest in returns above feed	25 farms lowest in returns above feed
Feeds per head, lbs.:				
Concentrates	_____	459	484	503
Hay and fodder	_____	1,657	1,558	2,295
Silage	_____	2,313	2,484	1,963
Whole milk	_____	408	359	592
Skimmilk	_____	1,104	810	1,091
Feed cost per head:				
Concentrates	\$ _____	\$ 3.76	\$ 3.89	\$ 4.18
Roughages	_____	7.31	7.39	9.03
Milk	_____	7.22	5.90	10.09
Pasture	_____	3.74	3.22	3.94
TOTAL FEED COSTS	\$ _____	\$22.03	\$20.40	\$27.24
Net inc. in value of other dairy cattle	_____	\$31.34	\$44.79	\$21.81
RETURNS ABOVE FEED COST PER HEAD	\$ _____	\$ 9.31	\$24.39	\$-5.43
RETURNS FOR \$100 OF FEED	\$ _____	\$152	\$235	\$83
Number of head of other dairy cattle	_____	14.4	17.6	16.2

Feed Costs and Returns From All Dairy Cattle

Items	Your farm	Average of 126 farms	25 farms highest in returns above feed	25 farms lowest in returns above feed
Feeds per animal unit, lbs.:				
Concentrates	_____	1,663	1,875	1,677
Hay and fodder	_____	3,971	3,888	4,443
Silage	_____	5,612	6,256	4,729
Feed cost per animal unit:				
Concentrates	\$ _____	\$13.66	\$15.62	\$13.68
Roughages	_____	18.31	18.85	18.78
Pasture	_____	5.90	6.04	6.05
TOTAL FEED COSTS	\$ _____	\$37.87	\$40.51	\$38.51
Value of produce per animal unit:				
Dairy products	\$ _____	\$62.47	\$83.96	\$45.75
Net increase in value of dairy cattle	_____	19.83	25.39	13.99
TOTAL VALUE PRODUCED	\$ _____	\$82.30	\$109.35	\$59.74
RETURNS ABOVE FEED PER ANIMAL UNIT	\$ _____	\$44.43	\$68.84	\$21.23
RETURNS PER \$100 OF FEED	\$ _____	\$219	\$267	\$162
Animal units of dairy cattle	_____	26.9	31.3	24.2

Factors of Cost and Returns from Milk and Beef Cows, 1940

Items	Your farm	Average of 18 farms	9 farms highest in returns above feed	9 farms lowest in returns above feed
Pounds of butterfat per cow	_____	181	210	152
Feeds per cow, lbs.:				
Corn	_____	426	508	344
Small grain	_____	1,067	1,332	802
Com. feeds - under 25% protein	_____	42	6	78
Com. feeds - over 25% protein	_____	37	37	36
Legume hay	_____	3,182	3,291	3,074
Other hay	_____	439	390	487
Fodder and stover	_____	835	566	1,105
Total concentrates	_____	1,572	1,883	1,260
Total dry roughage	_____	4,456	4,247	4,666
Silage	_____	4,462	4,065	4,858
Total digestible nutrients*	_____	4,072	4,226	3,918
T.D.N. per lb. B. F.	_____	23.2	20.0	26.4
% T.D.N. that is protein	_____	13.7	13.8	13.6
Feed cost per cow:				
Concentrates	\$ _____	\$12.89	\$14.92	\$10.86
Roughages	_____	17.68	17.11	18.26
Pasture	_____	5.72	5.82	5.61
TOTAL FEED COSTS	\$ _____	\$36.29	\$37.85	\$34.73
Value of produce per cow:				
B. F. sales	\$ _____	\$50.74	\$60.01	\$41.48
Dairy produce used in house	_____	4.09	4.82	3.35
Milk to livestock	_____	10.06	11.54	8.58
Net increases in value of cows	_____	3.09	5.46	.73
TOTAL VALUE PRODUCED	\$ _____	\$67.98	\$81.83	\$54.14
RETURNS ABOVE FEED COST PER COW	\$ _____	\$31.69	\$43.98	\$19.41
RETURNS FOR \$100 OF FEED	\$ _____	\$193	\$227	\$159
Price received per lb. B. F. sold				
As manufacturing cream (cents)	_____	32.2	32.3	32.0
As mkt. mk. & cm. & mk. for cheese (cts.)	_____	37.0	42.5	-
Feed cost per lb. B. F. (cents)	_____	20.6	17.9	23.3
% fall freshening	_____	47.1	51.7	42.6
Number of cows	_____	14.6	14.4	14.9

*Not including nutrients received from pasture.

Feed Costs and Returns From Other Milk and Beef Cattle, 1940

Items	Your farm	Average of 18 farms	9 Farms highest in returns above feed	9 Farms lowest in returns above feed
Feeds per head, lbs.:				
Concentrates	_____	609	673	545
Hay and fodder	_____	1509	1304	1714
Silage	_____	1518	1124	1912
Whole milk	_____	188	183	193
Skimmilk	_____	875	723	1027
Feed cost per head:				
Concentrates	\$ _____	\$4.74	\$5.25	\$4.23
Roughages	_____	5.91	4.47	7.36
Milk	_____	4.02	3.54	4.52
Pasture	_____	3.40	3.51	3.28
TOTAL FEED COSTS	\$ _____	\$18.07	\$16.77	\$19.39
Net increase in value	_____	\$30.81	\$37.67	\$23.95
RETURNS ABOVE FEED COST PER HEAD	\$ _____	\$12.74	\$20.90	\$ 4.56
RETURNS FOR \$100 OF FEED	\$ _____	\$183	\$244	\$123
Number of head	_____	25.6	26.4	24.8

Feed Costs and Returns From All Milk and Beef Cattle

Items	Your farm	Average of 18 farms	9 Farms highest in returns above feed	9 Farms lowest in returns above feed
Feeds per animal unit, lbs.:				
Concentrates	_____	1420	1701	1140
Hay and fodder	_____	3709	3430	3988
Silage	_____	3743	4333	3152
Feed cost per animal unit:				
Concentrates	\$ _____	\$11.38	\$13.64	\$ 9.13
Roughages	_____	14.65	14.16	15.14
Pasture	_____	6.07	6.10	6.04
TOTAL FEED COSTS	\$ _____	\$32.10	\$33.90	\$30.31
Value of produce per animal unit:				
Dairy products	\$ _____	\$31.50	\$35.96	\$27.05
Net increase in value	_____	28.11	34.88	21.35
TOTAL VALUE PRODUCED	\$ _____	\$59.61	\$70.84	\$48.40
RETURNS ABOVE FEED PER ANIMAL UNIT	\$ _____	\$27.51	\$36.94	\$18.09
RETURNS PER \$100 OF FEED	\$ _____	\$193	\$222	\$164
Animal units	_____	27.9	29.5	26.3

Feed Costs and Returns From Beef Cattle 1940

Items	Your farm	Average of all farms	Farms highest in returns above feed	Farms lowest in returns above feed
Beef breeding herd: no. of farms:	14	7	7	
Feeds per animal unit, lbs.:				
Concentrates	_____	1328	1551	1105
Legume hay	_____	1424	1936	912
Other hay	_____	1442	1171	1714
Fodder and stover	_____	411	409	411
Silage	_____	2725	2862	2589
Feed cost per animal unit:				
Concentrates	\$ _____	\$11.37	\$13.79	\$ 8.95
Roughages	_____	11.23	12.77	9.69
Pasture	_____	3.42	3.60	3.24
TOTAL FEED COSTS	\$ _____	\$25.02	\$30.16	\$21.88
Value of produce per animal unit:				
Dairy products	\$ _____	\$ 1.56	\$ 2.26	\$.87
Net increase in value of animals	_____	35.08	49.68	20.46
TOTAL VALUE PRODUCED	\$ _____	\$36.64	\$51.94	\$21.33
RETURNS ABOVE FEED COST PER ANIMAL UNIT	\$ _____	\$10.62	\$21.78	\$ -.55
RETURNS FOR \$100 OF FEED	\$ _____	\$148	\$202	\$95
Number of cows and herd bulls	_____	12.4	7.8	17.0
Number of Animal Units in the Herd	_____	24.3	20.8	27.8
Feeder cattle: no. of farms:	29	10	10	
Feeds per cwt. beef produced, lbs.:				
Corn	_____	610	527	795
Small grain	_____	126	109	167
Com. feeds - under 25% protein	_____	12	12	21
Com. feeds - over 25% protein	_____	16	20	15
Legume hay	_____	206	214	226
Other hay	_____	160	99	292
Fodder and stover	_____	27	13	50
Total concentrates	_____	764	668	998
Total dry roughages	_____	393	326	568
Silage	_____	401	180	354
% of T.D.N. in ration that is protein	_____	11.3	11.7	11.4
Feed cost per cwt. beef produced:				
Concentrates	\$ _____	\$ 6.00	\$ 5.32	\$ 7.87
Roughages	_____	1.53	1.19	1.81
Pasture	_____	.17	.06	.20
TOTAL FEED COSTS	\$ _____	\$ 7.70	\$ 6.57	\$ 9.88
Net increase in value of feeders	\$ _____	\$11.67	\$14.03	\$10.25
RETURNS ABOVE FEED COST PER CWT. BEEF PRODUCED	_____	\$ 3.97	\$ 7.46	\$.37
RETURNS FOR \$100 OF FEED	\$ _____	\$172	\$230	\$114
Price received per cwt. beef sold	\$ _____	\$ 8.67	\$ 9.52	\$ 7.78
No. of animal units	_____	20.8	35.9	7.1
Pounds of beef produced	_____	12453	20143	4809

Feed Costs and Returns from Sheep, 1940

Items	Your farm	Average of all farms	Farms highest in returns above feed	Farms lowest in returns above feed
Native sheep: no. of farms:		58	12	12
Feeds per head,* lbs.:				
Concentrates		83	80	76
Legume hay		206	217	199
Other hay		55	3	79
Fodder and stover		45	59	4
Silage		130	157	145
Feed cost per head:				
Concentrates	\$	.68	.66	.62
Roughages		1.02	.99	1.01
Pasture		.91	1.01	.91
TOTAL FEED COSTS	\$	\$2.61	\$2.66	\$2.54
Value of produce per head:				
Wool	\$	\$2.25	\$2.28	\$2.09
Net increase in value of sheep		3.79	6.47	1.08
TOTAL VALUE PRODUCED	\$	\$6.04	\$8.75	\$3.17
RETURNS ABOVE FEED COST PER HEAD	\$	\$3.43	\$6.09	\$.63
RETURNS FOR \$100 OF FEED	\$	\$245	\$351	\$140
Value per lamb sold	\$	\$6.69	\$7.55	\$5.68
Price per lb. wool sold (cts.)		30.7	31.0	30.6
Number of ewes kept for lambing		25.3	26.5	19.8
% lamb crop		106.0	118.3	74.3
% death loss		17.9	15.8	25.0
No. of head of sheep*		37.6	38.8	28.7

Feeder sheep: no. of farms:		4		
Feeds per cwt. sheep produced, lbs.:				
Concentrates		927		
Legume hay		322		
Other hay		68		
Fodder and stover		49		
Silage		7		
Feed cost per head:				
Concentrates	\$	\$7.15		
Roughages		1.43		
Pasture		.54		
TOTAL FEED COSTS	\$	\$9.12		
Net increase in value of sheep	\$	\$7.76		
RETURNS ABOVE FEED COST PER CWT. PRODUCED	\$	\$-1.36		
RETURNS FOR \$100 OF FEED	\$	\$90		
Price per cwt. sheep sold	\$	\$9.03		
% death loss		3.5		
% of T.D.N. in ration that is protein		11.9		
Pounds of sheep produced		8630		

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

Feed Costs and Returns From Hogs and Chickens, 1940

Items	Your farm	Average of all farms	Farms highest returns above feed	Farms lowest in returns above feed
Hogs: no. of farms:		143	29	29
Feed per cwt. hogs produced, lbs.:				
Corn	_____	308	230	431
Small grain	_____	134	111	174
Com. feeds - under 25% protein	_____	3	5	1
Com. feeds - over 25% protein	_____	9	9	15
Total concentrates	_____	454	355	621
Skimmilk	_____	262	141	363
Feed cost per cwt. hogs produced:				
Concentrates	\$ _____	\$3.55	\$2.77	\$4.91
Skimmilk	_____	.39	.21	.54
Pasture	_____	.17	.16	.21
TOTAL FEED COSTS	\$ _____	\$4.11	\$3.14	\$5.66
Net increase in value per cwt. hogs prod.	\$ _____	\$5.61	\$5.91	\$5.44
RETURNS ABOVE FEED COST PER CWT. HOGS PROD.	\$ _____	\$1.50	\$2.77	\$-.22
RETURNS FOR \$100 OF FEED	\$ _____	\$144	\$189	\$99
Price received per cwt. hogs sold	\$ _____	\$5.27	\$5.47	\$5.20
Total no. of litters raised	_____	12.4	12.5	11.2
No. of pigs weaned per litter	_____	6.3	6.4	5.7
% of two-litter system	_____	56.0	63.0	51.0
Pounds of hogs produced	_____	18,184	20,686	13,632
Chickens: no. of farms:		133	27	27
Feed per hen, lbs.:				
Concentrates	_____	119	135	113
Skimmilk	_____	26	26	24
Feed cost per hen:				
Concentrates	\$ _____	\$1.32	\$1.52	\$1.21
Skimmilk	_____	.04	.04	.04
TOTAL FEED COST	\$ _____	\$1.36	\$1.56	\$1.25
Value of produce per hen:				
Eggs sold and used in house	\$ _____	\$1.82	\$2.45	\$1.16
Net increase in value of chickens	_____	.46	1.13	.04
TOTAL VALUE PRODUCED	\$ _____	\$2.28	\$3.58	\$1.20
RETURNS ABOVE FEED COST PER HEN	\$ _____	\$.92	\$2.02	\$-.05
RETURNS FOR \$100 OF FEED	\$ _____	\$170	\$237	\$94
Price rec'd per doz. eggs sold (cts.)	_____	16.5	17.4	15.7
Eggs laid per hen	_____	131	168	88
No. of hens	_____	219	205	172
% of hens that are pullets	_____	79	87	69

Feed Costs and Returns for Turkeys, 1940

Items	Your farm	Average of 9 farms	4 Farms highest returns above feed	4 Farms lowest returns above feed
Feed per cwt. turkeys produced, lbs.:				
Grain	_____	456	378	562
Com. feeds - under 25% protein	_____	89	90	92
Com. feeds - over 25% protein	_____	160	167	138
Total concentrates	_____	705	635	792
Skimmilk	_____	51	15	96
Feed cost per cwt. turkeys produced	\$ _____	\$9.06	\$8.17	\$9.94
Value of produce per cwt. turkeys prod.				
Eggs and poults	\$ _____	\$2.73	\$4.41	\$1.63
Net increases in turkeys	_____	12.63	13.10	11.68
TOTAL VALUE PRODUCED	\$ _____	\$15.36	\$17.51	\$13.31
RETURNS ABOVE FEED COST PER CWT. TURKEYS PRODUCED	\$ _____	\$6.30	\$9.34	\$3.37
RETURNS FOR \$100 FEED	\$ _____	\$173	\$211	\$137
Price rec'd per lb. turkey sold (cts.)	_____	16.0	16.3	15.0
Pounds of turkeys produced	_____	20,112	17,978	23,671

Feed Costs for Horses and Misc. Power and Machinery Expense, 1940

Items	Your farm	Average of 147 farms*	30 most profit- able farms	29 least profit- able farms*
Feed per horse,** lbs.:				
Grain	_____	1991	2199	1736
Hay	_____	4395	4968	4430
Fodder and stover	_____	498	256	594
Feed costs per horse:				
Grain	\$ _____	\$15.48	\$17.04	\$13.67
Roughage	_____	12.57	14.16	13.18
Pasture	_____	3.28	2.86	3.65
TOTAL FEED COSTS	\$ _____	\$31.33	\$34.06	\$30.50
Number of work horses	_____	4.1	4.5	3.7
Number of colts	_____	1.0	1.2	1.1
Crop acres per farm	_____	148.1	199.7	124.7
Tractor and horse exp. per crop acre	\$ _____	\$2.39	\$2.42	\$2.90
Crop and general mach. exp. per crop acre	\$ _____	1.23	1.01	1.35

* One farm did not have horses.

** Two colts equal one horse.

Farm Produce Used in House and House Rental, 1940

Items	Quantities				Value			
	Your farm	Average 148 farms	30 most profit-able farms	30 least profit-able farms	Your farm	Average 148 farms	30 most profit-able farms	30 least profit-able farms
Wholemilk	_____	1,213 qts.	1,368	968	\$ _____	\$36.69	\$42.50	\$28.88
Skimmilk	_____	253 qts.	217	375	_____	.81	.70	1.21
Cream	_____	289 pts.	419	224	_____	30.33	42.72	22.96
Farm made butter	_____	2 lbs.	0	0	_____	.74	0	.03
Eggs	_____	191 doz.	235	173	_____	32.02	39.81	28.98
Cattle	_____	308 lbs.	328	375	_____	20.52	22.33	24.22
Hogs	_____	595 lbs.	700	481	_____	32.08	37.74	25.86
Sheep	_____	12 lbs.	23	6	_____	.61	1.14	.33
Poultry	_____	35 head	36	36	_____	14.44	15.60	14.55
Potatoes	_____	25 bu.	37	18	_____	15.03	21.87	10.69
Vegetables & fruits	_____	-	-	-	_____	39.49	44.98	34.57
Farm fuel	_____	7 cds.	9	7	_____	27.92	33.53	26.45
Rental vl. of house	_____	-	-	-	_____	207.36	209.41	203.26
Misc.(wool,honey,etc.)	_____	-	-	-	_____	.23	0	0
Total	_____				_____	458.27	512.33	421.99

Household and Personal Expenses For
Those Farms Which Kept Complete Accounts of these Expenses, 1940

Items	Your farm	Average of 95 farms	19 most profit-able farms	19 least profit-able farms
Number of persons - family	_____	4.2	4.7	3.5
Number of persons, (Family	_____	3.2	3.4	2.7
adult equivalent (Other*	_____	1.0	1.3	.8
Food and meals bought	\$ _____	\$294	\$319	\$254
Operating and supplies	_____	118	139	105
Clothing and clothing materials	_____	124	121	106
Personal care, personal spending	_____	44	28	36
Furnishings and equipment	_____	97	111	63
Education, recreation and development	_____	61	67	57
Medical care and health insurance	_____	90	83	69
Church, welfare, and gifts	_____	74	107	66
Personal share of auto expense	_____	101	101	101
Household share of elect. & gas eng. exp.	_____	38	41	36
HH. & pers. shr. of new auto, gas eng. & motors bot	_____	100	140	65
Life insurance and other investments	_____	164	177	125
Total household and personal cash expenses	_____	1,305	1,434	1,083
Food furnished by the farm	_____	240	288	189
Fuel furnished by the farm	_____	26	30	19
House rental	_____	199	194	182
Total household and personal expenses	_____	1,770	1,946	1,473

*Hired help or others boarded.

Miscellaneous Information - Averaged by Counties, 1940

Item	Dodge, Mower, Olmsted and Wabasha	Free- born	Good- hue	Nicol- let	Rice, Dakota and Scott	Steele	Waseca Le Sueur
Operator's labor earnings	\$ 1,626	\$ 1,755	\$ 1,575	\$ 1,786	\$ 1,741	\$ 2,536	\$ 2,028
Average farm inventory - beginning of year	22,482	22,181	21,783	26,442	23,018	23,639	26,542
Total acres in farms	223	223	213	250	209	228	239
Total crop acres	141	143	136	209	128	148	154
% of land tillable	78	73	79	76	70	74	69
Animal units of productive livestock	46.1	47.1	38.3	57.6	40.1	45.6	51.1
% of an: units that are dairy & milk-beef cows	42.1	40.4	48.8	33.7	41.4	40.2	35.6
% of an: units that are other dairy & milk-beef cat.	24.7	20.9	23.9	18.9	21.2	21.0	19.8
% of an: units that are in beef breeding herd	1.4	4.9	0	6.2	5.9	2.8	.7
% of an: units that are feeder cattle	4.2	2.9	1.5	9.7	5.6	1.4	7.3
% of an: units that are native sheep	5.3	5.3	6.5	2.1	2.8	5.0	5.0
% of an: units that are feeder sheep	2.3	0	0	0	0	0	.3
% of an: units that are hogs	15.5	20.4	11.2	24.5	14.3	23.5	20.9
% of an: units that are turkeys	.9	0	1.6	0	3.9	0	4.2
% of an: units that are hens	3.6	5.2	6.5	4.9	4.9	6.1	6.2
Crop yields, per cent of average	92.0	93.0	94.0	104.0	103.0	112.0	109.0
% of tillable land in high return crops	34.0	39.1	45.1	39.8	44.2	47.5	46.2
Index of return for \$100 feed to prod. livestock	106.0	96.0	104.0	87.0	104.5	97.0	94.0
Productive livestock units per 100 A.	23.4	24.8	21.1	24.9	22.3	23.4	24.5
Work units	646.0	656.0	632.0	695.0	610.0	684.0	721.0
Work units per worker	304.0	325.0	252.0	284.0	268.0	292.0	310.0
Expenses per work unit	\$1.74	\$1.49	\$1.43	\$1.54	\$1.86	\$1.67	\$1.68
Price rec. per lb. butterfat sold to creameries	\$.32	\$.33	\$.32	\$.32	\$.32	\$.34	\$.33
Price rec. per cwt. hogs sold	5.25	5.31	5.22	5.14	5.36	5.46	5.17
Price rec. per doz. eggs sold	.16	.17	.17	.15	.17	.17	.17
Yield per acre, corn, bu.	51.3	53.6	60.3	56.2	57.9	59.8	58.8
Yield per acre, barley, bu.	38.9	38.1	35.2	47.8	40.2	46.1	43.1
Yield per acre, oats, bu.	53.5	56.0	50.8	67.2	57.8	70.2	63.0
Yield per acre, flax, bu.	10.4	10.0	12.0	9.1	10.0	12.7	12.4
Yield per acre, alfalfa, tons	1.9	1.9	2.1	2.5	2.6	2.7	2.7

	Summary by Years							
	Average 1928-29	Average 1930-32	Average 1933-35	1936	1937	1938	1939	1940
Number of farms	148	157	126	152	166	122	154	148
Acres in farm	170	194	204	207	213	241	225	225
Crop acres in farm	116	134	140	138	143	164	147	148
Farm inventory	\$24,574	\$21,767	\$17,045	\$20,343	\$20,723	\$22,704	\$20,480	\$24,044

Farm Earnings (See page 29)

FARM EXPENSES

Horses bought	\$ 36	\$ 32	\$ 39	\$ 54	\$ 48	\$ 36	\$ 28	\$ 28
Cattle bought	141	79	121	182	181	217	299	607
Hogs bought	85	69	49	62	77	65	62	60
Sheep bought	6	10	65	69	39	110	98	82
Poultry bought	37	39	49	73	71	100	95	100
Misc. crop expenses	186	177	154	187	215	278	235	182
Feed bought	440	324	343	534	627	603	475	600
Power mach.(new & exp.)(farm share)	399	340	342	597	654	578	530	604
Custom work hired	-	-	-	-	-	-	-	123
Crop & gen. mach. & livestock equip. (new)	190	132	139	276	335	330	261	296
Crop & gen. mach. & livestock equip. (upkeep)	72	57	55	60	72	78	65	68
Building, fencing, tiling (new)	130	98	99	263	246	282	250	352
Buildings, fencing, tiling(upkeep)	52	29	41	63	96	114	69	84
Hired labor	272	252	261	374	433	519	340	404
Taxes and insurance	298	338	269	268	274	322	285	276
General farm	30	31	26	28	41	40	36	42
Miscellaneous livestock expense	66	72	55	83	83	130	110	78
(1) Total farm purchases	2,440	2,079	2,107	3,173	3,492	3,802	3,238	3,986
(2) Decrease in farm capital	-	755	-	-	-	22	-	-
(3) Board furnished hired labor	102	93	91	153	149	174	128	141
(4) Interest on farm capital	1,228	1,089	852	1,017	1,036	1,135	1,024	1,202
(5) Unpaid family labor	358	292	220	247	254	231	236	269
(6) Total farm expense (Sum of (1) to (5))	4,128	4,308	3,270	4,590	4,931	5,364	4,626	5,598

Summary by Years (Continued)

FARM RECEIPTS

	30	30	32	55	75	51	45	48	
Horses	753	467	457	545	754	838	813	1,176	
Cattle	1,662	1,209	1,207	1,669	1,598	1,509	1,170	1,454	
Dairy products	1,164	950	635	1,198	1,204	1,248	926	984	
Hogs	52	39	125	231	147	217	216	162	
Sheep	140	139	221	364	424	520	344	339	
Poultry	275	232	305	405	377	378	301	405	
Eggs	37	39	96	177	166	190	142	128	
Corn	241	140	272	543	378	244	274	235	
Small grain	163	170	155	154	177	185	157	250	
Other crops	134	151	135	226	292	314	231	295	
Misc.	102	112	132	140	203	219	136	148	
Income from work off farm	0	0	204	182	169	223	336	324	
Agric. Adjustment payments									
(7) Total farm sales	4,753	3,678	3,976	5,889	5,964	6,136	5,091	5,948	1
(8) Increase in farm capital	617	-	470	1,316	139	-	891	1,017	27-
(9) Farm prod. used in house + house rental	325	248	227	299	290	252	260	458	
(10) Total farm receipts	5,695	3,926	4,673	7,504	6,393	6,388	6,242	7,423	
(6) Total farm expenses	4,128	4,308	3,270	4,590	4,931	5,364	4,626	5,598	
(11) Operator's labor earnings	1,567	- 382	1,403	2,914	1,462	1,024	1,616	1,825	

MISCELLANEOUS ITEMS

Yield per acre, corn (bu.)	44.8	43.5	44.5	34.4	43.8	51.7	59.0	56.3	
Yield per acre, barley (bu.)	36.0	30.1	23.5	21.5	30.0	28.2	33.5	41.0	
Yield per acre, oats (bu.)	46.0	48.1	34.8	36.0	48.1	35.9	48.5	58.2	
Yield per acre, alfalfa (tons)	3.0	2.6	2.3	1.9	2.1	2.1	2.2	2.3	
% of till. land in high return crop	31.9	34.1	39.0	41.7	40.9	41.3	40.8	41.4	
Productive livestock units per 100 A.	19.2	20.7	19.9	20.1	19.6	19.7	18.5	23.4	
No. of work units	599	729	756	763	783	866	759	658	
Work units per worker	310	339	328	341	339	350	349	292	
Pow., mach., equip., & bldg. exp. per work unit	\$1.76	\$1.34	\$1.18	\$1.31	\$1.44	\$1.44	\$1.41	\$1.66	
No. of farms with tractors	80	101	90	122	142	114	134	134	
No. of work horses	5.4	5.4	5.2	4.8	4.5	4.4	4.1	4.1	

Summary by Years (continued)

Miscellaneous items (continued)	Average 1928-29	Average 1930-32	Average 1933-35	1936	1937	1938	1939	1940
No. of colts	.8	.8	.8	1.2	1.3	1.3	1.1	1.0
No. dairy & milk-beef cows	14.2	17.1	18.5	18.0	17.6	18.6	17.2	17.1
No. of litters of pigs	9.3	11.7	8.7	9.2	8.7	11.1	11.5	12.1
Pounds of hogs produced	12,706	16,219	12,260	12,786	12,770	15,948	16,014	17,671
No. of head of sheep	7.0	11.5	17.4	19.2	16.3	23.3	16.2	18.6
No. of hens	136	156	183	183	192	187	177	197
Pounds of B. F. per dairy cow	244.0	241.0	235.5	243.2	231.6	239.8	245.0	260.0
Pounds of B. F. per milk and beef cow	-	-	-	-	-	-	-	181.0
No. of pigs per litter	6.3	6.2	6.1	6.4	6.3	6.7	6.3	6.3
No. of eggs laid per hen	94.6	111.7	122.3	131.0	130.0	135.0	126.0	131.0
Price rec'd per lb. B. F. sold	\$.52	\$.30	\$.28	\$.37	\$.39	\$.31	\$.28	\$.33
Price rec'd per cwt. hogs sold	8.92	5.82	5.39	9.26	9.47	7.69	6.17	5.27
Price rec'd per cwt. feeder cattle sold	-	-	-	-	-	-	-	8.67
Am't. received per lamb sold	9.78	4.64	5.55	6.95	7.38	6.04	6.48	6.69
Price received per lb. wool sold	.36	.13	.21	.29	.32	.18	.26	.31
Price received per doz. eggs sold	.28	.17	.16	.20	.19	.18	.15	.17
Price received per lb. turkey sold	-	-	.20	.18	.21	.20	.17	.16
Ret. above feed cost per dairy cow	\$76.50	\$28.16	\$32.76	\$62.25	\$52.56	\$47.89	\$45.05	\$58.05
Ret. above feed cost per milk and beef cow	-	-	-	-	-	-	-	31.69
Ret. above feed cost per cwt. hogs prod.	1.50	.30	1.82	3.17	2.48	3.47	1.82	1.50
Ret. above feed cost per headsheep	5.50	-.07	2.24	3.54	3.63	1.28	3.18	3.43
Ret. above feed cost per hen	1.82	1.13	1.05	1.07	.83	1.12	.97	.92
Ret. above feed per cwt. turkeys prod.	-	-	11.59	5.66	12.53	12.38	8.27	6.30
Feed cost per dairy cow	\$69.50	\$52.27	\$43.37	\$43.70	\$51.29	\$40.55	\$38.67	\$43.22
Feed cost per milk and beef cow	-	-	-	-	-	-	-	36.29
Feed cost per cwt. hogs produced	7.66	4.50	4.36	6.27	6.33	3.86	3.51	4.11
Feed cost per head of sheep	2.82	2.26	2.59	2.46	2.53	2.37	2.33	2.61
Feed cost per hen	1.62	1.09	1.36	1.83	1.82	1.30	1.23	1.36
Feed cost per cwt. turkeys prod.	-	-	7.70	10.00	8.32	7.75	7.00	9.06
Feed cost per horse	55.09	36.13	37.52	38.60	40.95	29.94	27.61	31.33
Price of feed sh. corn (per bu.)	\$.70	\$.49	\$.48	\$.72	\$.78	\$.43	\$.36	\$.46
Price of feed, barley (per bu.)	.60	.36	.53	.60	.60	.39	.30	.31
Price of feed, oats (per bu.)	.48	.25	.29	.30	.35	.22	.23	.26
Price of feed, bran (per cwt.)	1.70	1.00	1.05	1.30	1.45	1.05	1.10	1.20
Price of feed, oilmeal (per cwt.)	3.00	2.00	1.85	2.15	2.15	2.30	2.15	1.75
Price of feed, alfalfa (per ton)	14.75	12.00	10.80	8.00	11.00	7.50	7.00	7.50

Footnote for pages 26, 27 and 28.

The values of farm real estate in 1931 were reduced approximately 25 per cent from 1928-1930 values. The values in 1932 were reduced about 29 per cent from the 1931 values. Only land was affected by the reduction in 1931, but in 1932 buildings and improvements were cut 25 per cent. In 1936 the values of farm real estate were adjusted upward 10 per cent, only land being affected by the increase. The value of dairy cows was also adjusted downward in 1932 and upward in 1936. These capital losses were not included in the inventory decreases in the financial statement but the changes in valuation resulted in variations in the interest charge. No changes in the basis of inventory valuations were made in the years 1933 to 1935 and 1937 to 1940.

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 to 1934, \$40 in 1935, \$43 in 1936, and \$45 in 1937 to 1940; and the board for hired labor was figured at \$20 per month in the 1928 to 1930 period, \$15 per month in 1931, \$10 per month in 1932, 1933 and 1934, \$15 per month in 1935, and \$18 per month in the years 1936 to 1940.

These adjustments should be considered in comparing 1940 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 the years 1936 to 1940 was credited as income in the years 1936 to 1940, respectively.

Several changes appear in the 1940 records. The value of the house which has previously been omitted from the farm business is now included and a rental charge equal to 10 per cent of the average value of the house is included with the farm perquisites. The standards used in the calculation of work units have been changed in accordance with new information recently made available. This latter change also affects the work units per worker and the factor or expense per work unit. The acres in protected woodlots, roads, waste and farmstead have been omitted from the acreage used in the calculation of amount of livestock per 100 acres. Several new livestock statements are added. Cattle have been classified into two groups "specialized dairy cattle" and "milk- and-beef cattle". Separate statements are presented for these groups. Statements for beef breeding cattle, feeder cattle and feeder sheep are also included.