UNIVERSITY OF MINNESOTA
Department of Agriculture
and the
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Soil Conservation Service

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6th Annual Report of the Soil Conservation Farm Management Service 1940

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Sixth Annual Report of the Soil Conservation Farm Management Service for the Year 1940

Prepared by T. R. Nodland, G. A. Pond and C. Herman Welch, Jr.

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INTRODUCTION

The Division of Agricultural Economics and the Division of Agricultural Extension of the University of Minnesota and the Soil Conservation Service of the United States Department of Agriculture have since 1935 maintained a complete farm record service, for farmers in the Soil Conservation Areas of Southeastern Minnesota. In 1935 only farmers who were cooperating with the Soil Conservation Service and operating their farms under a complete erosion control program in the Gilmore Creek Area at Winona and the Deer-Bear Creek Area at Spring Valley were included. In 1936 the service was extended to include farmers cooperating with the Soil Conservation Service in the Beaver Creek Area at Caledonia. In 1939 the service was further extended to include cooperators in the Houston and Caledonia C.C.C. camp areas and also a considerable number of farmers who were not cooperating in erosion control with the Soil Conservation Service. A total of 75 farmers completed records in 1940. Only two farmers closed records in the Gilmore Creek Area and their farm data are included with that of Houston county.

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RECORDS KEPT

The records kept by the cooperators included inventories at the beginning and end of the year, cash receipts and expenses, a record of feed for the various classes of livestock, and a record of the farm produce used by the farm family. Complete household and personal records were also kept by 43 cooperators. Supplementary information was secured during the year regarding crop and livestock and production practices.

The cooperators were assisted and supervised during the year by the fieldman, Mr. Austin B. Sanford of the Operations Division, Soil Conservation Service, who checked the records several times during the year for accuracy, completeness, and comparability. At the end of the year the records were completed and closed by C. Herman Welch, Jr., C. R. Hoglund, and H. O. Anderson of the Economics Division, Soil Conservation Service, and George V. Bowers and Austin B. Sanford of the Operations Division. The records were then brought to University Farm where they were checked and summarized under the direction of G. A. Pond and T. R. Nodland of the Division of Agricultural Economics of the University of Minnesota, who prepared this report.

The account books were furnished by the Agricultural Extension Division of the University of Minnesota. S. B. Cleland of this division handled the field organization and was assisted in securing the cooperation of the record-keeping farmers by Francis Brady, county agricultural agent of Houston county.

TYPE OF FARMING

Agriculture in the two areas covered by this report centers primarily around the dairy enterprise with smaller proportions of hogs, poultry and sheep included. A few farmers have both dairy cattle and beef cattle enterprises. Dairy products were sold principally as cream, although a few farmers had an outlet for whole milk. In those cases where cream was sold, the skim milk was fed to the calves, hogs and poultry.

The principal crops grown were oats, barley, hay and corn. The proportion of total farm land devoted to crop production and rotation pasture land varies from 30 per cent on some of the rougher farms in Houston county to more than 85 per cent on some of the more level farms in the Deer-Bear Creek Area, with an average of 60 per cent for all farms studied. Approximately 28 per cent of the farm acreage is devoted to permanent pasture, and about 8 per cent is in protected woodlots.

TOPOGRAPHY AND SOILS

The Deer-Bear Creek Area, in which 14 records were completed, is located in northwestern Fillmore county and along the eastern edge of Mower county and is drained by the middle branch of the Root River. The topography varies from very gently rolling to almost level land, in the upper part of the area, to very steep, hilly and rough land in the lower end. In many cases the upper end of the area lacks sufficient undulation of surface to allow proper drainage, in contrast to the lower, where creeks have cut deeply into the underlying limestone. The entire area has been glaciated almost equally between soils composed of drift material and of loessial mantle overdrift. Carrington and Lindley silt loam soils with glacial drift derivation and Tama & Clinton silt loams with loess derivation are among the more important soil types of the area. Erosion varies from slight amounts of sheet erosion in the upper reaches of the drainage areas to severe sheet and gully erosion in the middle and lower parts of the area.

Houston county, in which 59 records were completed, is located in the southeastern corner of the state. Most of the southwestern quarter of the county, in which somewhat more than one-half of the cooperation farmers are located, is

undulating and moderately rolling. Productive forest and prairie soils (Fayette silt loam and Tama silt loam), mostly tillable, occupy about 75 per cent of this area. These areas are subject to some erosion. The remaining land in this area is generally too steep to till, but is satisfactory for grazing. Some of the hillsides are wooded.

The remainder of the county is undulating to hilly. The farmers keeping records are located largely in the Root River watershed. The Root River and other streams have cut numerous deep valleys with shallower tributaries. The soil on the ridges (Fayette silt loam) is quite productive. The soil below the most level part of the ridges (Dubuque silt loam) is less productive and is more subject to erosion. The valley floors represent excellent corn land, but frequent overflows reduce its value for other crops. Considerably more than half of the land is too steep to be tillable, much so steep as to be of limited value for grazing. The steepest north-facing slopes are covered with wood. The lime content of the soils throughout the county is too low for the satisfactory production of alfalfa and sweet clover. Out-crops of limestone of suitable quality for application to the soil occur in many parts of the county.

The Gilmore Creek Area, in which two records were completed, is located at the southwestern edge of the city of Winona in Winona county. The valley and side coulees are very narrow with steep sides. The ridges are narrow, varying from a few rods to usually less than one-fourth of a mile in width. The upland soils fall mainly into two types, Clinton silt loam, a forest soil developed on loess, and Dubuque silt loam, a forest soil developed on residual limestone. The valley soils consist mostly of Jackson silt loam and Chariton silt loam. A considerable portion of the steep valley slopes is classified as rough, stony land. Serious sheet and gully erosion has taken place over the area.

WEATHER

The winter was favorable for new seedings and winter grains. Temperatures were approximately normal in 1940. Precipitation for the year was below normal although early rains were received when most needed for small grains and corn. A dry period during late spring had a detrimental effect upon pastures and retarded the growth of meadows to some extent. Small grain yields were high although a rainy spell during threshing caused some loss. On a few farms in the Deer-Bear Creek Area hail severely damaged the grains and second crop of hay. A drought in late September drastically reduced pasture growth. Corn yields were a little above normal and the moisture content was high. An early winter handicapped many farmers and yard feeding of livestock began earlier than usual.

Table 1. Monthly and Annual Precipitation, 1940, and Normal

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Gilmore Creek (Winona)	.25	.60	1.46	1.92	2.46	4.37	2.63	5.22	.86	2.69	2.81	1.02	26.29
Deer-Bear Creek (Spring Valley)	.16	.60	1.09	1.68	2.08	3.77	3.28	5.20	.38	2.29	3.21	1.48	25.22
Beaver Creek (Caledonia)	.36	.64	1.15	2.10	1.58	3.29	3.41	8.73	.19	3.44	3.29	1.55	29.73
Caledonia (1890-1919)	1.08	1.02	1.71	2.88	4.18	4.81	3.78	3.44	3.92	2.57	1.47	1.22	32.08
Spring Grove (1935-1940)	1.12	1.05	1.56	2.31	3.20	3.77	2.41	5.32	3.12	2.32	1.50	.81	28.69

Summary of Farm Inventories (Beginning of Year), 1940

Items	Your farm	Average of 75 farms	15 most profitable farms	15 least profitable farms
Size of farm (acres)	_____	219.3	258.9	244.7
Size of business (work units)*	_____	522	683	552
Horses	$_____	$ 377	$ 395	$ 336
Productive livestock (total)	_____	2,041	2,402	2,214
Dairy and dual-purpose cows	_____	696	664	761
Other dairy & dual-purpose cattle	_____	460	415	558
Beef cattle (including feeders)	_____	320	530	290
Hogs	_____	365	486	349
Sheep (farm flock)	_____	88	97	171
Poultry (including turkeys)	_____	112	210	85
Crop, seed, and feed	_____	1,212	1,748	1,134
Mach. & equipment (total)	_____	1,773	2,222	1,971
Power mach. (f. share)	_____	699	819	869
Crop & gen. mach. (f. share)	_____	829	1,072	801
Livestock equip. & supplies	_____	245	331	301
Buildings, fences, etc.	_____	5,284	5,808	5,842
Land	_____	6,474	7,602	8,142
Total farm capital	$_____	$17,161	$20,177	$19,659

*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 and 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 dual-purpose cows	cow	14.5	Small grain	acre	.8
			Soybeans for grain	"	1.0
Other dairy and dual-purpose cattle	animal	4.4	Sugar beets	"	3.0
			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 75 farms	15 most profitable farms	15 least profitable farms
Horses	$_____	$ 344	$ 362	$ 330
Productive livestock (total)	_____	2,276	2,935	2,415
Dairy & dual-purpose cows	_____	749	733	791
Other dairy & duel-purpose cattle	_____	478	451	638
Beef cattle (including feeders)	_____	431	879	425
Hogs	_____	408	507	342
Sheep (farm flock)	_____	90	113	140
Poultry (including turkeys)	_____	120	252	79
Crop, seeds, and feed	_____	1,452	2,152	1,209
Mach. & equipment (total)	_____	1,818	2,431	1,991
Power mach. (f. share)	_____	722	919	891
Crop and gen. mach.	_____	829	1,093	806
Livestock equipment and supplies	_____	267	419	294
Buildings, fences, etc.	_____	5,290	5,939	5,828
Land	_____	6,474	7,602	8,142
Total farm capital	$_____	$17,654	$21,421	$19,915

Summary of Amount of Livestock

Items	Your farm	Average of 75 farms	15 most profitable farms	15 least profitable farms
No. of horses	_____	3.6	4.1	3.3
No. of colts	_____	1.0	.9	1.3
No. of dairy & dual-purpose cows	_____	13.0	12.7	14.6
Head of other dairy & dual-purpose cattle	_____	15.9	13.6	19.0
Head of cattle kept in beef breeding herd	_____	6.3	13.1	6.4
Litters of pigs	_____	11.9	13.3	10.8
Pounds of hogs produced	_____	17,521	22,268	14,874
Head of sheep (2 lambs = 1 head)	_____	13.5	15.4	19.5
No. of hens	_____	102	105	93
Total no. of prod. livestock animal units	_____	38.0	46.3	40.3
% of total that are dairy and dual-purpose cows	_____	38.5	31.0	40.5
% of total that are other dairy and dual-purpose cattle	_____	23.4	15.8	27.0
% of total that are in beef breeding herd	_____	7.4	16.2	5.6
% of total that are feeder cattle	_____	.9	1.2	.0
% of total that are sheep (farm flock)	_____	4.0	5.1	5.6
% of total that are hogs	_____	20.2	19.6	18.4
% of total that are turkeys	_____	2.2	8.3	.0
% of total that are hens	_____	3.4	2.8	2.9
Number of farms with tractors		57	12	12

Summary of Farm Earnings (Cash Statement), 1940

Items	Your farm	Average of 75 farms	15 most profitable farms	15 least profitable farms
FARM EXPENSES				
Horses bought	$	$ 17	$ 23	$ 23
Dairy and dual-purpose cows bought		16	4	26
Other dairy & dual-purpose cattle bought		46	70	17
Beef cattle bought (including feeders)		44	98	55
Hogs bought		47	115	24
Sheep bought		9	16	4
Poultry bought (including turkeys)		70	185	20
Misc. crop expenses		132	242	116
Feed bought		455	967	359
Power mach. (farm share) (new)		127	221	125
Power mach. (farm share) (upkeep)		206	289	265
Custom work hired		81	98	68
Crop and general mach. (new)		93	150	92
Crop and general mach. (upkeep)		24	41	30
Livestock equipment (new)		54	121	32
Livestock equipment (upkeep)		8	15	9
Misc. livestock expense		30	59	41
Buildings and fencing (new)		189	243	159
Buildings and fencing (upkeep)		79	116	107
Hired labor		215	390	176
Taxes		262	300	282
Insurance		3	8	1
General farm		13	15	19
(1) Total farm purchases	$	$2,220	$3,786	$2,050
(2) Decrease in farm capital		-	-	-
(3) Board furnished hired labor		82	140	89
(4) Interest on farm capital		870	1,040	989
(5) Unpaid family labor		305	209	496
(6) Total farm expenses(Sum of(1) to (5))		$3,477	$5,175	$3,624
FARM RECEIPTS				
Horses		35	38	4
Dairy and dual-purpose cows		128	141	106
Dairy products		763	796	854
Other dairy and dual-purpose cattle		285	253	258
Beef cattle (including feeders)		134	274	65
Hogs		949	1,342	790
Sheep and wool		85	108	133
Poultry (including turkeys)		324	1,018	51
Eggs		164	256	132
Corn		28	42	22
Small grain		54	159	53
Other crops		184	668	72
Power machinery sold		38	66	39
Crop and general mach. sold		24	62	7
Misc.		127	192	111
Income from work off the farm		220	427	285
Agricultural adjustment payments		226	325	216
(7) Total farm sales		$3,768	$6,167	$3,198
(8) Increase in farm capital		493	1,244	276
(9) Farm prod. used in house + house rent		472	506	453
(10) Total farm receipts (7)+(8)+(9)		$4,733	$7,917	$3,927
(6) Total farm expenses		3,477	5,175	3,624
(11) Operator's labor earnings (10)-(6)		1,256	2,742	303

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

Items	Your farm	Average of 75 farms	15 most profitable farms	15 least profitable farms
EXPENSES AND NET DECREASES				
Total power	$_____	$ 420	$ 492	$ 485
Horses	_____	144	164	160
Tractor	_____	102	102	122
Truck	_____	31	45	61
Auto (farm share)	_____	75	98	68
Gas engine (farm share)	_____	6	9	8
Elec. plant or current (farm share)	_____	19	22	31
Hired power	_____	43	52	35
Crop and general machinery	_____	97	111	94
Livestock equipment	_____	36	40	46
Buildings, fencing and tiling	_____	141	120	190
Misc. productive livestock expense	_____	28	55	40
Labor	_____	625	767	781
Real estate taxes	_____	227	267	230
Personal property tax	_____	35	33	52
Insurance	_____	3	8	1
General farm	_____	13	15	19
Interest on farm capital	_____	870	1,040	989
(1) Total expenses & net decreases	_____	2,495	2,948	2,927
RETURNS AND NET INCREASES				
All productive livestock	_____	3,167	4,558	2,786
Dairy and dual-purpose cows	_____	1,008	1,071	1,111
Other dairy & dual-purpose cattle	_____	417	366	472
Beef breeding herd	_____	196	491	124
Feeder cattle	_____	29	75	0
Hogs	_____	976	1,276	785
Sheep--farm flock	_____	78	108	100
Turkeys	_____	232	891	0
Chickens	_____	231	280	194
Crops, seed and feed	_____	4	187	-188
Income from work off the farm	_____	220	427	285
Agricultural conservation payments	_____	226	325	216
Miscellaneous	_____	134	193	131
(2) Total returns & net increases	_____	3,751	5,690	3,230
(1) Total expenses & net decreases	_____	2,495	2,948	2,927
(3) Oper. labor earnings (2) - (1)	_____	1,256	2,742	303

(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 shows that there is a wide range in earnings. The average operator's labor earnings for the fifteen most profitable farms was $2,742, and for fifteen least profitable farms $303. The difference between the averages for these two groups was $2,439. Some of the causes for these differences in earnings may be beyond the control of the farmer. It is significant, however, that the data secured from the records on these 75 farms indicate that there are several very definite factors that enable some farmers to make substantial earnings on these farms that are subject to rather serious erosion, while others fail to meet expenses. These factors and their relationship with earnings are the following:

Table 2. Relation of Crop Yields to Farm Earnings

Per cent crop yields were of the average for all the 75 farms		No. of	Average
Group	Average	Farms	Earnings
Below 85	74	24	$ 715
85 to 114	103	33	1,466
115 and above	130	18	1,592

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. As a rule, plowing under legumes and manure and control of erosion tend to increase crop yields on these farms.

Table 3. Relation of Choice of Crops to Farm Earnings

Per cent of tillable land in high return crops*		No. of	Average
Group	Average	Farms	Earnings
Below 28	24.4	19	$1,155
28 to 44	36.2	42	1,262
45 and above	50.7	14	1,373

*Crops are marked on page 14 as (A), (B), (C), or (D). All of the 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, sweet clover, red 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.

Soil erosion and fertility maintenance are vital problems on the farms included in this study. Biennial and perennial legumes, especially alfalfa and sweet clover, form a sod that helps to check erosion, conserve humus and soil fertility. If properly inoculated they tend to increase the nitrogen content of the soil. Legume hays and pastures are also valuable for feed, for they lessen the necessity to purchase high-priced protein feeds. Alfalfa is undoubtedly the most profitable crop available for these farms.

Table 4. Relation of Returns from Productive Livestock to Farm Earnings

Index of returns for $100 feed fed to productive livestock* Group	Average	No. of Farms	Average Earnings
Below 86	72	17	$ 971
86-113	100	39	1,302
114 and above	126	19	1,416

*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 5. Relation of Amount of Productive Livestock to Farm Earnings

Productive livestock units per 100 A. Group	Average	No. of Farms	Average Earnings
Below 17.0	14.3	24	$1,202
17.0 to 23.9	20.9	28	1,251
24.0 and above	29.9	23	1,317

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

Days of productive work Group	Average	No. of Farms	Average Earnings
Below 375	308	16	$ 813
375 to 624	483	40	1,124
625 and above	783	19	1,907

Average farm earnings tend to increase with an increase in size of business where size of business is measured by days of productive work. However, for those farmers who are operating their farms at a loss, the larger the volume of business the larger will be the loss. On the other hand, a farmer who is making a profit, could make a larger profit if he increased his size of business, providing that in so doing he does not lower materially the efficiency in some one or more important branches of his business. Those farmers who have large businesses usually have more flexibility of their organization than does the man with a small business, and can utilize more efficiently and to better advantage available labor, power, machinery, and buildings.

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

Days of productive work per worker Group	Average	No. of Farms	Average Earnings
Below 200	167	14	$ 696
200 to 314	257	44	1,180
315 and above	358	17	1,913

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 an efficient manner, 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, economical use of labor-saving machinery, etc., help to increase the work accomplished per worker.

Table 8. Relation of Power, Machinery and Building Expense to Farm Earnings*

Expense per day of productive work Group	Average	No. of Farms	Average Earnings
$1.95 and above	$2.23	12	$1,151
$ .90 to $1.94	1.33	49	1,182
Below $ .90	.73	14	1,605

*Includes building, fencing, and all machinery expense, horse feed, and miscellaneous horse expense.

The expense factor shows a higher relation with earnings when prices are very low than when they are high. 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. Oftentimes 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 9.

Table 9. Relation of Operator's Labor Earnings to the Number of Factors in Which the Farmer Is Above the Average

No. of factors in which farm excels	No. of Farms	Your Farm	The length of the shaded lines are in proportion to the average operator's labor earnings	Average Operator's Earnings
Five or six	17	_____	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	$1,909
Four	16	_____	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	1,655
Three	24	_____	xxxxxxxxxxxxxx	914
Two	13	_____	xxxxxxxxxxxx	800
One or none	5	_____	xxxxxxxxxx	588

The array in Table 9 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.

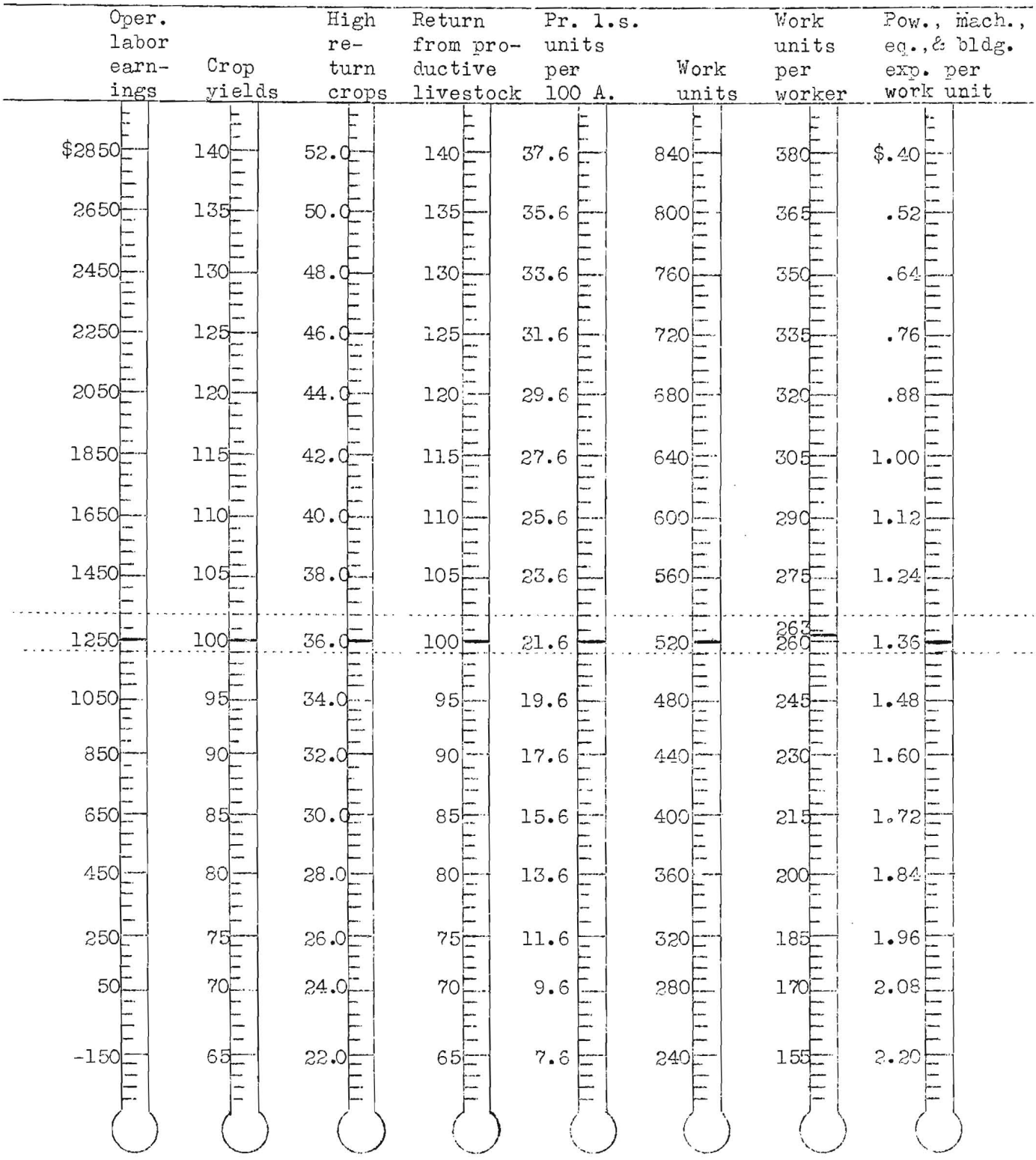
Measures of Farm Organization and Management Efficiency, 1940

Measures used in chart on page 13	Your farm	Average of 75 farms	15 most profitable farms	15 least profitable farms
Operator's Labor Earnings	$_____	$1,256	$2,742	$ 303
(1) Crop yields*	_____	100	106	81
(2) % of tillable land in high return crops**	_____	35.9	34.9	32.5
(3) Ret. for $100 feed to prod. livestock***	_____	100	107	97
(4) Prod. livestock units per 100 acres****	_____	21.6	23.2	20.7
(5) Size of business - work units	_____	522	683	552
(6) Work units per worker	_____	263	327	229
(7) Pow., mach., equip. & bldg.exp.per work unit	$_____	$1.36	$1.16	$1.48
Measures and items related to some of the above measures:				
(3) Index of return for $100 feed from -				
Dairy cattle	_____	100	96	100
Milk and beef cattle	_____	100	102	106
Beef breeding herd	_____	100	122	52
Feeder cattle	_____	100	102	-
Hogs	_____	100	102	88
Sheep - farm flock	_____	100	102	85
Turkeys	_____	100	-	-
Chickens	_____	100	90	102
(5) Work units on crops	_____	127	182	132
Work units on productive livestock	_____	340	394	349
Other work units	_____	55	107	71
(6) Total number of workers	_____	2.0	2.2	2.4
Number of family workers	_____	1.6	1.4	1.9
Number of hired workers	_____	.4	.8	.5
(7) Power expense per work unit	$_____	$.83	$.75	$.90
Crop machinery expense per work unit	_____	.19	.17	.18
Livestock equip. expense per work unit	_____	.06	.06	.08
Bldgs. and fencing exp. per work unit	_____	.28	.18	.32

*Given as a percentage of the average.
**Crops are marked on page 14 as (A), (B), (C) and (D). All of acres in (A) crops, one half of acres in (B) crops, and one-fourth of acres in (C) crops are used in calculating per cent of tillable land in high return crops.
***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 the 75 farms included in this summary are located between the dotted lines across the center of this page.



Crop Yields per Acre, 1940

Crop	Your farm	Average of 75 farms	15 most profitable farms	15 least profitable farms
Flax, bu.	_____	8.6	10.1	8.4
Barley, bu.	_____	33.3	33.8	25.7
Winter wheat, bu.	_____	20.8	23.3	20.0
Spring wheat, bu.	_____	15.8	19.6	14.0
Oats and barley, bu.	_____	37.8	43.3	36.9
Oats and wheat, bu.	_____	40.9	43.7	-
Oats, bu.	_____	36.4	39.3	30.2
Rye, bu.	_____	26.5	35.0	-
Soybeans for grain, bu.	_____	16.0	17.1	10.1
Potatoes, bu.	_____	90.4	77.5	93.1
Corn, grain, bu.	_____	57.8	58.4	47.0
Corn silage, tons	_____	10.0	9.2	9.3
Corn or cane fodder, tons	_____	5.4	5.5	-
Alfalfa hay, tons	_____	2.1	2.2	1.9
Red clover hay, tons	_____	1.5	1.7	1.3
Soybean hay, tons	_____	1.9	1.4	1.9
Mixed legume and non-legume hay, tons	_____	1.5	1.4	1.6
Timothy and/or brome hay, tons	_____	1.2	1.4	.9
Timothy seed, lbs.	_____	135.2	176.3	88.2
Other annual hay, tons	_____	.9	1.0	.7
Wild hay, tons	_____	1.2	.5	1.2

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

Items	Your farm	Average of 72 farms*	14 most profitable farms*	14 least profitable farms*
Feed per horse,** lbs.:				
Grain	_____	1605	1819	1535
Hay	_____	4120	3579	3703
Fodder and stover	_____	523	330	542
Feed costs per horse:				
Grain	$_____	$14.24	$16.26	$13.74
Roughage	_____	12.14	10.61	10.76
Pasture	_____	4.28	3.82	4.28
TOTAL FEED COSTS	$_____	$30.66	$30.69	$28.78
Number of work horses	_____	3.7	4.4	3.6
Number of colts	_____	1.1	.9	1.4
Crop acres per farm***	_____	104.5	141.1	113.8
Tractor and horse exp. per crop acre***	$_____	$2.64	$2.12	$2.70
Crop and general mach. exp. per crop acres***	_____	1.00	.85	.98

*Three farms did not have horses.
**Two colts equal one horse.
***Seventy-five farms.

Factors of Cost and Returns from Dairy Cows, 1940

Items	Your farm	Average of 39 farms	10 farms highest in returns above feed	10 farms lowest in returns above feed
Pounds of butterfat per cow	_____	225	288	164
Feeds per cow, lbs.:				
Corn	_____	615	1043	439
Small grain	_____	684	635	744
Com. feeds - under 25% protein	_____	35	39	9
Com. feeds - over 25% protein	_____	87	153	62
Legume hay	_____	2618	2824	2704
Other hay	_____	1143	1101	1139
Fodder and stover	_____	532	260	589
Total concentrates	_____	1431	1870	1254
Total dry roughage	_____	4293	4185	4432
Silage	_____	4185	5216	2336
Total digestible nutrients*	_____	3873	4415	3497
T.D.N. per lb. B.F.	_____	17.6	15.5	21.2
% T.D.N. that is protein	_____	12.6	12.8	12.7
Feed cost per cow:				
Concentrates	$_____	$13.46	$17.70	$11.54
Roughages	_____	16.34	17.90	14.66
Pasture	_____	5.81	5.25	6.22
TOTAL FEED COSTS	$_____	$35.61	$40.85	$32.42
Value of produce per cow:				
B.F. sales	$_____	$61.47	$89.12	$40.83
Dairy produce used in house	_____	6.33	4.57	7.78
Milk to livestock	_____	13.39	15.30	9.54
Net increases in value of cows	_____	1.67	2.81	-.20
TOTAL VALUE PRODUCED	$_____	$82.86	$111.80	$57.95
RETURNS ABOVE FEED COST PER COW	$_____	$47.25	$70.95	$25.53
RETURNS FOR $100 OF FEED	$_____	$242	$288	$191
Price received per lb. B.F. sold				
As manufacturing cream (cents)	_____	31.1	32.0	31.1
As mkt. mk., & cm. & mk. for cheese (cts.)	_____	39.7	40.9	33.8
Feed cost per lb. B.F. (cents)	_____	16.1	14.2	19.7
% fall freshening	_____	47.0	56.2	31.4
Number of dairy cows**	_____	13.6	17.2	11.4

*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 38 farms*	10 farms highest in returns above feed	10 farms lowest in returns above feed
Feeds per head, lbs.:				
Concentrates	_____	278	195	285
Hay and fodder	_____	1741	1955	1561
Silage	_____	1248	1172	1079
Whole milk	_____	577	575	809
Skim milk	_____	1396	1239	2078
Feed cost per head:				
Concentrates	$_____	$ 2.54	$ 1.91	$ 2.62
Roughages	_____	5.51	4.57	5.35
Milk	_____	9.94	9.41	14.38
Pasture	_____	2.20	1.87	2.43
TOTAL FEED COSTS	$_____	$20.19	$17.76	$24.78
Net inc. in value of other dairy cattle	$_____	$30.60	$41.80	$22.38
RETURNS ABOVE FEED COST PER HEAD	$_____	$10.41	$24.04	$-2.40
RETURNS FOR $100 OF FEED	$_____	$168	$242	$100
Number of head of other dairy cattle	_____	11.5	9.1	13.1

Feed Costs and Returns from All Dairy Cattle

Items	Your farm	Average of 39 farms	10 farms highest in returns above feed	10 farms lowest in returns above feed
Feeds per animal unit, lbs.:				
Concentrates	_____	1162	1414	1215
Hay and fodder	_____	3960	4179	4414
Silage	_____	3562	5064	1456
Feed cost per animal unit:				
Concentrates	$_____	$10.95	$13.60	$11.26
Roughages	_____	14.47	16.25	13.81
Pasture	_____	5.31	4.75	5.90
TOTAL FEED COSTS	$_____	$30.73	$34.60	$30.97
Value of produce per animal unit:				
Dairy products	$_____	$50.67	$67.86	$42.05
Net increase in value of dairy cattle	_____	18.00	22.98	11.02
TOTAL VALUE PRODUCED	$_____	$68.67	$90.84	$53.07
RETURNS ABOVE FEED PER ANIMAL UNIT	$_____	$37.94	$56.24	$22.10
RETURNS FOR $100 OF FEED	$_____	$233	$273	$181
Animal units of dairy cattle	_____	19.6	23.9	14.9

*One farmer having both a dairy and a beef herd used a beef bull and included all the young stock in the beef herd.

Factors of Cost and Returns from Dual-Purpose Cows, 1940

Items	Your farm	Average of 31 farms	8 farms highest in returns above feed	8 farms lowest in returns above feed
Pounds of butterfat per cow	_____	187	222	152
Feeds per cow, lbs.:				
Corn	_____	535	475	364
Small grain	_____	546	293	715
Com. feeds - under 25% protein	_____	35	17	2
Com. feeds - over 25% protein	_____	42	37	27
Legume hay	_____	2727	2564	3176
Other hay	_____	843	738	1029
Fodder and stover	_____	706	618	547
Total concentrates	_____	1158	822	1108
Total dry roughage	_____	4276	3920	4752
Silage	_____	3665	4788	4673
Total digestible nutrients*	_____	3561	3316	3945
T.D.N. per lb. B.F.	_____	19.6	15.2	26.3
% T.D.N. that is protein	_____	12.8	12.2	12.9
Feed cost per cow:				
Concentrates	$_____	$10.69	$ 7.69	$10.27
Roughages	_____	15.51	15.73	18.63
Pasture	_____	5.87	5.80	5.82
TOTAL FEED COSTS	$_____	$32.07	$29.22	$34.72
Value of produce per cow:				
B.F. sales	$_____	$47.75	$57.69	$39.61
Dairy produce used in house	_____	6.47	8.64	4.75
Milk to livestock	_____	12.04	13.22	9.11
Net increases in value of cows	_____	1.97	4.16	-.46
TOTAL VALUE PRODUCED	$_____	$68.23	$83.71	$53.01
RETURNS ABOVE FEED COST PER COW	$_____	$36.16	$54.49	$18.29
RETURNS FOR $100 OF FEED	$_____	$232	$309	$155
Price received per lb. B.F. sold				
As manufacturing cream (cents)	_____	30.7	30.4	31.0
As mkt. mk. & cm. & mk. for cheese (cts.)	_____	34.6	-	-
Feed cost per lb. B.F. (cents)	_____	17.8	13.3	23.7
% fall freshening	_____	47.2	50.0	45.3
Number of dual-purpose cows	_____	14.4	15.4	15.6

*Not including nutrients received from pasture.

Feed Costs and Returns from Other Dual-Purpose Cattle, 1940

Items	Your farm	Average of 30 farms*	8 farms highest in returns above feed	8 farms lowest in returns above feed
Feeds per head, lbs.:				
Concentrates		395	365	534
Hay and fodder		1452	1216	1474
Silage		986	444	1429
Whole milk		283	271	338
Skim milk		1339	1534	1085
Feed cost per head:				
Concentrates	$	$3.57	$3.35	$4.76
Roughages		4.60	3.61	5.35
Milk		6.11	6.34	6.76
Pasture		2.25	2.59	2.05
TOTAL FEED COSTS	$	$16.54	$15.89	$18.92
Net increase in value	$	$27.05	$37.35	$18.62
RETURNS ABOVE FEED COST PER HEAD	$	10.51	21.46	-.30
RETURNS FOR $100 OF FEED	$	$174	$244	$100
No. of head other dual-purpose cattle		25.1	18.5	39.7

Feed Costs and Returns from All Dual-Purpose Cattle

Items	Your farm	Average of 31 farms	8 farms highest in returns above feed	8 farms lowest in returns above feed
Feeds per animal unit, lbs.:				
Concentrates		1002	997	1024
Hay and fodder		3706	3530	3862
Silage		2864	3426	4004
Feed cost per animal unit:				
Concentrates	$	$9.15	$8.95	$9.39
Roughages		12.64	13.01	15.20
Pasture		5.20	5.12	5.22
TOTAL FEED COSTS	$	$26.99	$27.08	$29.81
Value of produce per animal unit:				
Dairy products	$	$32.77	$41.11	$22.19
Net increase in value		23.27	30.40	21.18
TOTAL VALUE PRODUCED	$	$56.04	$71.51	$43.37
RETURNS ABOVE FEED PER ANIMAL UNIT	$	$29.05	$44.43	$13.56
RETURNS PER $100 OF FEED	$	$221	$282	$148
Animal units of dual-purpose cattle		27.0	21.2	34.6

*One farmer having both a dual-purpose and a beef herd used a beef bull and included all the young stock in the beef herd.

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:		11	5	5
Feeds per animal unit, lbs.:				
Concentrates		1168	899	1523
Legume hay		2209	1885	2756
Other hay		664	621	662
Fodder and stover		312	120	292
Silage		3314	2300	4827
Skim milk*		363	283	139
Whole milk*		38	34	13
Feed cost per animal unit:				
Concentrates	$	$10.20	$ 7.90	$13.28
Roughages		13.01	10.54	16.68
Milk		1.09	.93	.37
Pasture		6.85	6.15	7.07
TOTAL FEED COSTS	$	$31.15	$25.52	$37.40
Value of produce per animal unit:				
Dairy products	$	$4.16	$5.79	$3.37
Net increase in value of animals		42.35	53.32	31.07
TOTAL VALUE PRODUCED	$	$46.51	$59.11	$34.44
RETURNS ABOVE FEED COST PER ANIMAL UNIT	$	$15.36	$33.59	$-2.96
RETURNS FOR $100 OF FEED	$	$163	$231	$96
Number of cows and herd bulls		14.8	17.2	15.1
Number of Animal Units in the Herd		29.0	29.7	31.2
Feeder cattle: no. of farms:		5		
Feeds per cwt. beef produced, lbs.:				
Corn		324		
Small grain		38		
Com. feeds - under 25% protein		0		
Com. feeds - over 25% protein		71		
Legume hay		282		
Other hay		62		
Fodder and stover		0		
Total concentrates		433		
Total dry roughages		344		
Silage		883		
Feed cost per cwt. beef produced:				
Concentrates	$	$4.29		
Roughages		2.10		
Pasture		.23		
TOTAL FEED COSTS	$	$6.62		
Net increase in value of feeders	$	$9.08		
RETURNS ABOVE FEED COST PER CWT.BEEF PROD.	$	$2.46		
RETURNS FOR $100 OF FEED	$	$149		
Price received per cwt. beef sold	$	$9.30		
No. of animal units		7.3		
Pounds of beef produced		4143		

*Several farmers had both dairy or dual-purpose cows and beef cows and fed considerable amounts of milk produced by the dairy herd to beef calves.

Feed Costs and Returns from Hogs and Sheep

Items	Your farm	Average of all farms	Farms highest in returns above feed	Farms lowest in returns above feed
Hogs: no. of farms:		75	15	15
Feed per cwt. hogs produced, lbs.:				
Corn	_____	314	247	484
Small grain	_____	105	72	129
Com. feeds - under 25% protein	_____	3	5	3
Com. feeds - over 25% protein	_____	6	6	8
Total concentrates	_____	428	330	624
Skim milk, buttermilk and whey	_____	273	191	430
Feed cost per cwt. hogs produced:				
Concentrates	$_____	$3.78	$2.93	$5.52
Skim milk	_____	.39	.29	.59
Pasture	_____	.22	.20	.25
TOTAL FEED COSTS	$_____	$4.39	$3.42	$6.36
Net increase in value per cwt. hogs prod.	$_____	$5.57	$5.88	$5.48
RETURNS ABOVE FEED COST PER CWT. HOGS PROD.	$_____	$1.18	$2.46	$-.88
RETURNS FOR $100 OF FEED	$_____	$135	$173	$92
Price received per cwt. hogs sold	$_____	$5.27	$5.48	$5.09
Total no. of litters raised	_____	11.9	11.6	11.3
No. of pigs weaned per litter	_____	6.5	6.2	6.3
Pounds of hogs produced	_____	17521	16941	15108
Sheep (farm flock): no. of farms:		21	10	10
Feeds per head*, lbs.:				
Concentrates	_____	48	29	61
Legume hay	_____	177	171	195
Other hay	_____	53	55	51
Fodder and stover	_____	30	44	18
Silage	_____	109	104	118
Feed cost per head:				
Concentrates	$_____	$ .45	$ .27	$ .56
Roughages	_____	.89	.90	.94
Pasture	_____	.95	1.04	.87
TOTAL FEED COSTS	$_____	$2.29	$2.21	$2.37
Value of produce per head:				
Wool	$_____	$2.01	$2.19	$1.83
Net increase in value of sheep	_____	4.45	5.84	3.01
TOTAL VALUE PRODUCED	$_____	$6.46	$8.03	$4.84
RETURNS ABOVE FEED COST PER HEAD	$_____	$4.17	$5.82	$2.47
RETURNS FOR $100 OF FEED	$_____	$305	$389	$222
Value per lamb sold	$_____	$6.90	$7.36	$6.44
Price per lb. wool sold (cts.)	_____	32.0	31.7	32.4
Number of ewes kept for lambing	_____	32.0	20.7	41.7
% lamb crop	_____	113.1	118.8	106.5
% death loss	_____	16.0	14.4	17.9
No. of head of sheep*	_____	48.0	31.3	62.8

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

Feed Costs and Returns from Chickens and Turkeys, 1940

Items	Your farm	Average of all farms	Farms highest in returns above feed	Farms lowest in returns above feed
Chickens: no. of farms:		69	14	14
Feed per hen, lbs.:				
Concentrates		100	113	121
Skim milk		39	37	42
Feed cost per hen:				
Concentrates	$	$1.09	$1.29	$1.27
Skim milk, buttermilk and whey		.06	.06	.06
TOTAL FEED COST	$	$1.15	$1.35	$1.33
Value of produce per hen:				
Eggs sold and used in house	$	$1.53	$2.10	$1.05
Net increase in value of chickens		.64	1.45	.39
TOTAL VALUE PRODUCED	$	$2.17	$3.55	$1.44
RETURNS ABOVE FEED COST PER HEN	$	$1.02	$2.20	$ .11
RETURNS FOR $100 OF FEED	$	$210	$295	$116
Price received per doz. eggs sold (cts.)		14.7	15.8	14.1
Eggs laid per hen		120	155	87
No. of hens		110	113	98
% of hens that are pullets		69	73	66
Turkeys: no. of farms:		5		
Feed per cwt. turkeys produced, lbs.:				
Grain		323		
Com. feeds - under 25% protein		1		
Com. feeds - over 25% protein		188		
Total concentrates		512		
Skim milk		0		
Feed cost per cwt. turkeys produced	$	$7.93		
Value of produce per cwt. turkeys prod.:				
Eggs and poults	$	$2.30		
Net increases in turkeys		12.86		
TOTAL VALUE PRODUCED	$	$15.16		
RETURNS ABOVE FEED COST PER CWT. TURKEYS PRODUCED	$	$7.23		
RETURNS FOR $100 OF FEED	$	$194		
Price received per lb. turkey sold (cts.)		15.8		
Pounds of turkeys produced		22909		

Farm Produce Used in House and House Rental, 1940

Items	Quantities: Your farm	Quantities: Average 75 farms	Quantities: 15 most profitable farms	Quantities: 15 least profitable farms	Value: Your farm	Value: Average 75 farms	Value: 15 most profitable farms	Value: 15 least profitable farms
Whole milk	_____	843 qts.	934	783	$_____	$25.48	$27.61	$24.45
Skim milk	_____	758 qts.	789	523	_____	2.47	2.59	1.70
Cream	_____	390 pts.	431	309	_____	36.10	37.08	29.61
Farm-made butter	_____	28 lbs.	1	41	_____	9.47	.27	13.85
Eggs	_____	163 doz.	177	158	_____	26.85	29.29	26.04
Cattle	_____	358 lbs.	359	442	_____	21.98	23.48	27.57
Hogs	_____	571 lbs.	504	506	_____	30.74	28.06	26.58
Sheep	_____	3 lbs.	0	12	_____	.21	0	.70
Poultry	_____	88 lbs.	95	99	_____	10.02	11.14	11.51
Potatoes	_____	23 bu.	25	24	_____	14.07	14.53	14.52
Vegetables & fruits	_____	-	-	-	_____	56.20	68.56	44.18
Farm fuel	_____	12 cds.	12	13	_____	51.77	47.37	52.43
Rental val. of house	_____	-	-	-	_____	186.78	214.53	180.11
Misc.(wool,honey,etc.)	_____	-	-	-	_____	.24	1.20	0
Total					$_____	$472.38	$505.71	$453.25

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

Items	Your farm	Average of 43 farms	9 most profitable farms	9 least profitable farms
Number of persons - family	_____	4.1	3.7	3.6
Number of persons, (Family adult equivalent (Other*	_____	3.2	3.0	2.9
	_____	.5	.8	.6
Food and meals bought	$_____	$217	$260	$189
Operating and supplies	_____	68	63	42
Clothing and clothing materials	_____	105	144	87
Personal care, personal spending	_____	57	45	90
Furnishings and equipment	_____	57	106	76
Education, recreation and development	_____	37	47	44
Medical care and health insurance	_____	59	43	53
Church, welfare, and gifts	_____	44	64	48
Personal share of auto expense	_____	68	60	77
Household share of elect. & gas eng. exp.	_____	11	13	11
H.H.& pers.shr.of new auto,gas eng.& motors bought	_____	58	71	58
Life insurance and other investments	_____	49	48	44
Total household and personal cash expenses	$_____	$830	$964	$819
Food furnished by the farm	$_____	$235	$266	$193
Fuel furnished by the farm	_____	48	43	41
House rental	_____	182	208	163
Total household and personal expenses	$_____	$1295	$1481	$1216

*Hired help or others boarded.

Summary of Farm Earnings by Areas, 1940

Items	14 farms in Deer-Bear Creek Area	61 farms in Houston county
FARM EXPENSES		
Horses bought	$31	$14
Dairy and dual-purpose cows bought	-	19
Other dairy and dual-purpose cattle bought	87	36
Beef cattle bought (including feeders)	152	19
Hogs bought	108	33
Sheep bought (including feeders)	24	6
Poultry bought (including turkeys)	27	80
Misc. crop expenses	167	124
Feed bought	397	468
Power mach. (farm share) (new)	218	106
Power mach. (farm share) (upkeep)	236	199
Custom work hired	97	78
Crop and general mach. (new)	75	97
Crop and general mach. (upkeep)	40	21
Livestock equipment (new)	55	54
Livestock equipment (upkeep)	10	8
Misc. livestock expense	46	26
Buildings and fencing (new)	179	191
Buildings and fencing (upkeep)	124	70
Hired labor	246	208
Taxes	275	259
Insurance	4	2
General farm	20	11
(1) Total farm purchases	$2618	$2129
(2) Decrease in farm capital	-	-
(3) Board furnished hired labor	68	86
(4) Interest on farm capital	1045	830
(5) Unpaid family labor	257	316
(6) Total farm expenses (Sum of (1) to (5)	$3988	$3361
FARM RECEIPTS		
Horses	$28	$37
Dairy and dual purpose cows	84	138
Dairy products	766	762
Other dairy and dual-purpose cattle	239	296
Beef cattle (including feeders)	188	122
Hogs	1007	935
Sheep and wool (including feeders)	230	51
Poultry (including turkeys)	61	384
Eggs	193	158
Corn	60	21
Small grain	206	19
Other crops	204	180
Power machinery sold	67	31
Crop and gen. mach. sold	19	25
Misc.	178	115
Income from work off the farm	274	208
Agricultural adjustment payments	348	199
(7) Total farm sales	$4152	$3681
(8) Increase in farm capital	809	420
(9) Farm prod. used in house + house rent	498	466
(10) Total farm receipts (7) + (8) + (9)	$5459	$4567
(6) Total farm expenses	3988	3361
(11) Operator's labor earnings (10) - (6)	$1471	$1206

Distribution of Acres in Farm and Average Yields per Acre, 1940

	Distribution of Acres		Crop Yields	
	Deer-Bear Creek Area	Houston county	Deer-Bear Creek Area	Houston county
Flax	8.3	.6	7.8 bu.	9.4 bu.
Barley	8.9	5.6	22.1 bu.	35.6 bu.
Winter wheat	2.0	.6	10.0 bu.	21.0 bu.
Spring wheat	2.2	.9	14.6 bu.	16.3 bu.
Oats and barley	16.2	13.5	42.5 bu.	37.1 bu.
Oats and wheat	2.9	1.9	40.1 bu.	41.1 bu.
Oats	19.0	10.5	29.8 bu.	37.7 bu.
Rye	0	.1	-	26.5 bu.
Soybeans for grain	11.6	.1	15.3 bu.	17.9 bu.
Miscellaneous	1.6	.2	-	-
Total small grain	72.7	34.0		
Hybrid seed corn, truck crops, etc.	.6	1.0	-	-
Potatoes	.3	.3	75.0 bu.	93.8 bu.
Corn, grain	31.4	22.0	39.3 bu.	62.1 bu.
Corn, silage	7.9	3.8	9.1 tons	10.3 tons
Corn fodder	1.0	.1	4.9 tons	6.4 tons
Total cultivated crops	41.2	27.2		
Alfalfa hay	10.9	12.6	1.7 tons	2.1 tons
Red clover hay	1.5	2.0	2.0 tons	1.4 tons
Soybean hay	10.5	2.0	1.5 tons	2.1 tons
Mixed legumes and non-legumes	19.8	9.7	1.3 tons	1.6 tons
Legumes for seed	0	.1	-	-
Timothy and/or brome hay	1.8	3.2	1.0 tons	1.2 tons
Timothy seed	.7	0	146.9 lbs.	-
Other annual hay	1.5	.6	.6 tons	1.1 tons
Total tillable land in hay	46.7	30.2		
Alfalfa pasture	.3	.6		
Sweet clover pasture	.6	2.1		
Mix. incl.alf., sw.cl., brome	3.2	1.2		
Other legumes and mixtures	12.3	4.3		
Sudan grass	.2	.8		
Other tillable pasture	18.8	10.5		
Total tillable land in past.	35.4	19.5		
Tillable land not cropped	4.0	.8		
Total tillable land	200.0	111.7		
Wild hay (non-tillable)	.7	.4	.8 tons	1.3 tons
Non-tillable pasture	41.9	68.0		
Timber (not pastured)	13.1	17.5		
Roads and waste	5.6	7.0		
Farmstead	6.0	3.7		
Total acres in farm	267.3	208.3		
% land tillable	74.0	56.0		
% tillable land in high return crops	30.1	37.2		

Measures of Farm Organization and Management Efficiency

	Deer-Bear Creek Area	Houston county
Operator's labor earnings	$1471	$1206
Index of crop yields	85	103
% tillable land in high return crops	30.1	37.2
Index of returns for $100 feed to livestock	100	100
Productive livestock units per 100 acres	18.2	22.3
Size of business - work units	591	506
Work units per worker	303	254
Power, mach., equip, & bldg. exp. per work unit	$1.37	$1.36
Work units on crops	185	114
Work units on productive livestock	338	340
Other work units	68	52
Total number of workers	1.9	2.1
No. of family workers	1.5	1.6
No. of hired workers	.4	.5

Amount of Livestock

No. of work horses	4.3	3.4
No. of colts	1.4	.9
No. of dairy and dual-purpose cows	12.5	13.2
Head of other dairy and dual-purpose cattle	15.1	16.1
Head in beef breeding herd	12.4	4.9
Litters of pigs raised	11.1	12.0
Pounds of hogs produced	16608	17730
Head of sheep (farm flock)	31.0	9.5
No. of hens	113	100
Total number of productive livestock units	42.9	36.9
% of total productive livestock animal units that are:		
Dairy and dual-purpose cows	33.6	39.6
Other dairy and dual-purpose cattle	21.5	23.8
Beef breeding herd	13.6	6.0
Feeder cattle	0	1.1
Sheep (farm flock)	9.0	2.8
Hogs	18.6	20.6
Turkeys	0	2.7
Chickens	3.7	3.4

Summary of Earnings by Years (see footnote, page 29)

	1935	1936	1937	1938	1939	1940
No. of farms	40	81	57	55	91	75
FARM EXPENSES						
Horses bought	$41	$42	$33	$33	$25	$17
Cattle bought (including feeders)	79	114	152	133	80	106
Hogs bought	31	51	42	32	45	47
Sheep bought	105	43	16	43	31	9
Poultry bought (including turkeys)	27	30	19	18	25	70
Misc. crop expenses	99	108	141	145	147	132
Feed bought	184	271	369	253	287	455
Power mach. (new & exp.) (farm share)	90*	265	410	336	373	333
Custom work hired	-	-	-	-	-	81
Crop & general mach. and livestock equip. (new)	132*	139	180	124	129	147
Crop.& general mach. & livestock equip. (upkeep)	136*	36	41	36	35	32
Buildings, fencing, tiling (new)	152	96	128	55	102	189
Buildings, fencing, tiling (upkeep)	28	39	37	40	36	79
Hired labor	162	167	217	196	183	215
Taxes and insurance	193	204	226	236	258	265
General farm	14	19	14	12	9	13
Miscellaneous livestock expense	21	30	55	63	48	30
(1) Total farm purchases	1494	1654	2080	1755	1813	2220
(2) Decrease in farm capital	-	-	-	-	-	-
(3) Board furnished hired labor	88	87	95	78	81	82
(4) Interest on farm capital	638	703	752	761	775	870
(5) Unpaid family labor	156	241	247	244	336	305
(6) Total farm expenses (Sum of (1) to (5)	2376	2685	3174	2838	3005	3477
FARM RECEIPTS						
Horses	$18	$25	$39	$54	$48	$35
Cattle (including feeders)	568	380	656	673	607	547
Dairy products	700	812	919	800	629	763
Hogs	474	802	920	890	946	949
Sheep	247	159	161	128	152	85
Poultry (including turkeys)	106	142	122	58	137	324
Eggs	136	136	135	162	138	164
Corn	4	8	20	7	106	28
Small grain	149	183	113	51	50	54
Other crops	97	102	67	42	50	184
Misc.	69	115	189	142	141	189
Income from work off farm	101	82	137	177	166	220
Agricultural adjustment payments	68	131	149	168	230	226
(7) Total farm sales	2737	3077	3627	3352	3400	3768
(8) Increase in farm capital	160	254	66	50	105	493
(9) Farm produce used in house + house rental	311	361	317	315	270	472
(10) Total farm receipts (7) + (8) + (9)	3208	3692	4010	3717	3775	4733
(6) Total farm expenses	2376	2685	3174	2838	3005	3477
(11) Operator's labor earnings (10) - (6)	832	1007	836	879	770	1256

*Tractor, truck, gas engine and electricity (new & expense) were included with crop and general machinery and livestock equipment in 1935.

Summary of Miscellaneous Items by Years

Miscellaneous items:	1935	1936	1937	1938	1939	1940
Acres in farm	193.9	189.9	203.7	202.3	216.6	219.3
Crop acres in farm	106.2	100.7	108.7	110.9	107.6	104.5
% of till. land in high return crops	*	36.7	41.7	40.3	35.6	35.9
Yield per acre, corn, grain (bu.)	39.1	30.1	34.8	49.5	57.7	57.8
Yield per acre, corn, silage (tons)	7.3	5.7	6.5	8.9	9.2	10.0
Yield per acre, barley (bu.)	20.8	18.1	23.9	26.6	22.8	33.3
Yield per acre, oats (bu.)	33.2	20.8	37.0	31.6	32.2	36.4
Yield per acre, alfalfa (tons)	3.2	1.8	2.0	2.4	1.5	2.1
Productive livestock units per 100 A.	14.9	17.6	17.9	20.1	20.0	21.6
No. of work units	506	550	597	628	646	522
Work units per worker	288	301	314	340	321	263
Power, equipment & building exp. per work unit	$.76	$1.13	$1.10	$1.06	$1.09	$1.36
No. of work horses	4.4	4.2	4.3	4.0	3.8	3.6
No. of colts	.6	.9	.8	1.0	1.0	1.0
No. of dairy and dual-purpose cows	12.7	13.9	13.7	14.2	14.4	13.0
Head of other dairy & dual-purpose cattle	13.8	17.2	21.2	19.9	21.1	15.9
No. of litters of pigs	3.7	7.6	6.8	8.7	11.8	11.9
Pounds of hogs produced	*	8404	9950	12808	16534	17521
No. of head of sheep	26.0	23.7	30.9	30.2	22.4	13.5
No. of hens	103	79	93	100	101	102
Pounds of butterfat per dairy cow	190	178	192	200	189	225
Pounds of butterfat per dual-purpose cow	*	*	*	*	*	187
No. of pigs per litter	6.3	5.6	6.8	6.7	6.1	6.5
No. of eggs laid per hen	95	102	114	118	115	120
Price received per lb. of butterfat sold	$.30	$.31	$.37	$.30	$.27	$.31
Price received per cwt. hogs sold	*	9.22	9.01	7.55	6.15	5.27
Price received per dozen eggs sold	.21	.18	.18	.18	.15	.15
Return above feed cost per:						
Dairy cow	*	37.06	41.33	37.23	29.82	47.25
Dual-purpose cow	*	*	*	*	*	36.16
Animal unit in beef breeding herd	*	*	*	*	*	15.36
Cwt. feeder cattle produced	*	*	*	*	*	2.46
Cwt. hogs produced	*	2.31	2.21	3.04	1.16	1.18
Head of sheep (farm flock)	*	2.27	1.98	1.71	2.91	4.17
Hen	*	.78	1.14	1.21	.73	1.02
Cwt. turkeys produced	*	*	*	*	*	7.23
Feed cost per:						
Dairy cow	*	$37.53	42.51	34.22	31.16	35.61
Dual-purpose cow	*	*	*	*	*	32.07
Animal unit in beef breeding herd	*	*	*	*	*	31.15
Cwt. feeder cattle produced	*	*	*	*	*	6.62
Cwt. hogs produced	*	6.69	6.30	4.37	4.19	4.39
Head of sheep	*	2.83	2.41	2.25	2.03	2.29
Hen	*	1.54	1.43	1.22	1.12	1.15
Cwt. turkeys produced	*	*	*	*	*	7.93
Horse	*	40.69	33.64	28.44	28.31	30.66
Price of feed, ear corn (per bu.)	*	$.81	$.70	$.41	$.40	$.48
Price of feed, bran (per cwt.)	*	1.40	1.35	1.05	1.25	1.30
Price of feed, alfalfa hay (per ton)	*	9.00	9.50	8.00	7.00	7.50

*Information not available.

Footnote for pages 27 and 28:

The financial statements differ in that the unpaid family labor rate was $40 per month for 1935, $43 in 1936, and $45 in 1937 to 1940; and the board for hired labor was figured at $15 per month in 1935, and $18 per month in 1936 to 1940. These adjustments to meet changes in the price level should be considered in comparing 1940 results with previous years.

The data for each of the first three years were for the 12 months' period beginning March first of the three years indicated and ending February twenty-eighth of the following year. The data for 1938 to 1940 were for the period January first to December thirty-first.

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 of 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 were added. Cattle kept for milk production have been classified into two groups, "specialized dairy cattle" and "dual-purpose cattle". Separate statements are presented for these groups. Statements for beef breeding cattle, feeder cattle and feeder sheep are also included.

Suggestions for Improvements