UNIVERSITY OF MINNESOTA
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and the
UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service
Cooperating

FARM BUSINESS ANALYSIS SURVEY OF 30 FARMS IN THE CLEAR LAKE SOIL CONSERVATION DEMONSTRATION AREA 1942

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FARM BUSINESS ANALYSIS SURVEY OF 30 FARMS IN THE CLEAR LAKE SOIL CONSERVATION DEMONSTRATION AREA SHERBURNE COUNTY, MINNESOTA 1/ 1942

C. Herman Welch, Jr. 2/

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INTRODUCTION

Source of Data

During the fall of 1941 the Soil Conservation Service established a soil conservation demonstration project in the Clear Lake area of Sherburne County. Technical assistance was made available to farmers in establishing wind, water and soil erosion control demonstrations on their farms.

This report is based upon a survey made of 30 of approximately 65 farms operated in the demonstration area and covers the period April 1, 1942 to April 1, 1943. Included in the survey was a record of inventories, farm expenses and receipts, farm produce used in the house, unpaid family labor, crop acreages and production and livestock numbers and production. Similar information for the preceding year was summarized in mimeographed report No. 135.

1/ The Division of Agricultural Economics, University of Minnesota, and the Soil Conservation Service, United States Department of Agriculture, cooperated in this study.

2/ Project Supervisor, Economic Research, Soil Conservation Service.

Description of Area

The project area consists of approximately 23,000 acres located in parts of Clear Lake, Haven, and Palmer townships in Sherburne County. The southern two-thirds of the area along the Mississippi River is a sand plain that extends back to the gently undulating area north of the Elk River. The soil is characterized by a very dark greyish loamy sand to sandy loam from 6 to 12 inches in thickness underlain with sand or mixed sand and gravel. The depressions in the northern part of the area often have a peaty surface and are frequently underlain with marl. The level, open cropland provides little protection from the sweeping effects of the wind. Drifted sand along fence rows and other barriers are visible evidence of wind erosion.

Numerous county and State aid roads provide easy access to all-weather State highways, over which farm produce is hauled to markets in St. Cloud, St. Paul, Minneapolis and South St. Paul. The area is also served by the Northern Pacific Railroad.

The annual precipitation in the area is 26.4 inches, of which 65 percent occurs between April 1 and September 1. Precipitation during the period April 1, 1942 and April 1, 1943 was about normal, being only one-half inch less than the 66-year average. Temperatures were below normal throughout the entire year, except during the month of April. The last killing frost was May 16 and the first killing frost was September 24, giving a frost-free period of 131 days, which is 10 days less than average for the area. The prevailing wind is from the northwest, although south winds are frequent during the summar and fall.

Table 1. Monthly and Annual Precipitation and Temperature, St. Cloud, Minnesota, April 1, 1942 to April 1, 1943

		Precipitation		Temperature	
		Monthly and total	Departure from normal	Monthly and annual means	Departure from normal
		Inches	Inches	Degrees	Degrees
1942	April	1.87	-0.01	48.6	+4.3
	May	4.47	+1.08	52.0	-4.3
	June	3.21	-1.17	62.8	-2.9
	July	3.45	-0.11	68.0	-3.2
	August	3.28	-0.08	67.0	-1.2
	September	4.89	+1.47	54.2	-5.2
	October	0.38	-1.82	45.7	-3.0
	November	0.16	-1.05	29.2	-1.0
	December	1.11	+0.57	11.0	-5.8
1943	January	0.77	+0.05	2.8	-7.0
	February	0.67	+0.01	12.6	-0.8
	March	1.61	+0.52	18.4	-9.0
	Annual	25.87	-0.54	39.36	-3.3

Cool, wet weather in May retarded growth of vegetation, and the planting of corn and other late crops was delayed somewhat. Small grains and grasses did well in June and July, although it was too cool for corn. Hail did considerable damage to crops on many farms in the area. Rains delayed harvesting and threshing.

Method of Presentation

Comparisons are made in the following sections of the report between "Your farm" and the average of the 30 farms included in the study, the 10 most profitable farms, and the 10 least profitable farms. From these comparisons each farm operator can determine the strong and weak points in his farm organization. A study of these data may suggest opportunities for improving the farm business.

Data contained in this report are on the whole farm basis without regard to tenure, i.e., the information is presented as if each farm were owned by its operator. Expenses of the landlord such as real estate taxes, building repairs, insurance, etc., are estimates obtained from the tenant. The unpaid family labor was charged at $60 per month and the board for hired help at $25 per month.

Table 2. Distribution of Farm Inventories (Beginning of Year), 1942

Items	Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
Size of farm (acres)	____	378	636	256
Size of business (work units) 1/	____	590	910	454
Horses	____	$298	$403	$292
Productive livestock (total)	____	2464	3895	1560
Dairy and dual purpose cows	____	951	1313	730
Other dairy and dual pur. cattle	____	570	794	430
Beef cattle (including feeders)	____	176	489	39
Hogs	____	579	1037	265
Sheep	____	65	105	5
Poultry	____	123	157	91
Crops, seed and feed	____	577	1027	401
Machinery and equipment (total)	____	1926	3010	1185
Power machinery (farm share)	____	765	1182	403
Crop and general machinery	____	987	1538	663
Livestock equipment and supplies	____	174	290	119
Buildings, fencing, etc.	____	4153	5368	3836
Land	____	4917	6820	4091
Total farm capital	____	14335	20523	11365

1/ The total "work units" for any one farm is a measure of size of farm business and accounts for both the amount of livestock and the acres of crops. 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 dual purpose cows	cow	14.0	Small grain	acre	0.8
			Soybeans for grain	"	1.0
Other dairy & dual purpose cattle	animal	4.0	Soybeans, hogged off	"	.6
			Sweet corn	"	2.5
Beef breeding herd	unit*	4.0	Corn, grain	"	1.8
Sheep - farm flock		1.6	Corn, silage	"	2.1
Hens	100 hens	28.0	Corn, fodder	"	1.5
Feeder cattle	head	2.5	Corn, hogged off	"	1.1
Hogs	cwt.	.3	Corn, shredded	"	2.8
Turkeys	produced	.7	Alfalfa hay	"	1.0
			Soybean hay	"	1.4
			Other hay and sod crops	"	.6
			Canning peas	"	2.0
			Field peas, hogged off	"	.5
			Potatoes and truck crops	"	3.8

* Animal unit represents one cow, one bull, one feeder steer or heifer, two head of other cattle, seven head of sheep, fourteen lambs, 2,200 lbs. pork produced, 100 hens, or 1,400 lbs. turkeys produced.

Table 3. Summary of Farm Inventories (End of Year), 1942

Items	Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
Horses	$____	$ 302	$ 393	$ 313
Productive livestock (total)	____	3,208	5,740	1,701
Dairy and dual purpose cows	____	1,033	1,416	851
Other dairy and dual purpose cattle	____	682	1,187	397
Beef cattle (including feeders)	____	158	475	0
Hogs	____	1,118	2,326	326
Sheep	____	89	173	5
Poultry (including turkeys)	____	128	163	122
Crops, seed and feed	____	714	1,059	396
Machinery and equipment (total)	____	1,923	3,169	1,089
Power machinery (farm share)	____	726	1,211	347
Crop and general machinery	____	979	1,583	608
Livestock equipment and supplies	____	218	375	134
Buildings, fences, etc.	____	4,207	5,517	3,813
Land	____	4,917	6,820	4,091
Total farm capital	____	15,271	22,698	11,403
Increase in farm capital	____	936	2,175	38

Table 4. Summary of Amount of Livestock

Items	Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
No. horses	____	3.6	4.1	4.1
No. colts	____	.7	1.2	.4
No. dairy and dual purpose cows	____	12.8	16.8	10.8
Head other dairy and dual pur. cattle	____	15.1	22.7	10.6
Head cattle in beef breeding herd	____	1.0	2.9	0
Net gain in weight, feeder cattle, lbs.	____	1,133	280	60
Net gain in weight, hogs produced, lbs.	____	14,109	26,949	5,438
Net gain in weight, turkeys produced, pounds	____	767	2,300	0
Head sheep (2 lambs equal 1 head)	____	7.7	13.6	.8
Number hens	____	138	156	118
Total no. prod. livestock animal units	____	31.8	50.3	20.7
Percent of total that are:				
Dairy and dual purpose cows	____	44.3	34.5	52.8
Other dairy and dual purpose cattle	____	25.4	24.6	26.8
Beef cattle	____	1.7	5.1	0
Feeder cattle	____	.8	.9	1.5
Sheep - farm flock	____	2.6	3.8	.5
Hogs	____	19.0	24.5	12.3
Turkeys	____	.9	2.8	0
Chickens	____	5.3	3.8	6.1

Table 5. Summary of Farm Earnings (Cash Statement), 1942

Items	Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
FARM RECEIPTS				
Horses sold	$	$ 42	$ 72	$ 17
Dairy and dual purpose cows sold		219	302	93
Dairy products sold		1011	1532	676
Other dairy and dual pur. cattle sold		400	422	337
Beef cattle sold (including feeders)		154	421	41
Hogs sold		1580	2815	766
Sheep and wool		57	70	11
Poultry sold (including turkeys)		338	840	67
Eggs sold		370	403	341
Crops sold - corn		48	22	121
Crops sold - small grain		105	139	116
Crops sold - other		55	134	13
Power machinery sold		30	49	0
Crop and general machinery sold		13	20	1
Miscellaneous income		87	225	10
Income from work off the farm		57	88	46
A.A.A. payments		143	257	79
(1) Total farm sales		4709	7811	2736
(2) Increase in farm capital		936	2175	38
(3) Family living from farm		503	578	441
(4) Total farm receipts (1)+(2)+(3)		6148	10564	3215
FARM EXPENSES				
Horses bought		36	46	54
Dairy and dual purpose cows bought		30	0	52
Other dairy and dual pur. cattle bought		69	131	21
Beef cattle bought (including feeders)		9	29	0
Hogs bought		75	97	94
Sheep bought (including feeders)		1	3	0
Poultry bought (including turkeys)		45	64	29
Miscellaneous livestock expenses		32	54	14
Miscellaneous crop expenses		136	216	98
Feed bought		358	504	181
Power machinery - farm share - new		59	174	3
Power machinery - farm share - upkeep		283	433	174
Custom work hired		165	189	140
Crop and general machinery - new		98	208	27
Crop and general machinery - upkeep		72	126	37
Livestock equipment - new		64	121	31
Livestock equipment - upkeep		8	12	5
Building and fencing - new		181	273	192
Building and fencing - upkeep		40	55	9
Hired labor		231	418	119
Taxes		229	380	152
Insurance		25	23	25
General farm		6	8	6
(5) Total farm purchases		2252	3564	1463
(6) Decrease in farm capital		0	0	0
(7) Board furnished hired help		124	224	70
(8) Interest on farm capital*		740	1081	569
(9) Unpaid family labor		499	504	569
(10) Total farm expenses (sum of(5)to(9)		3615	5373	2671
(11) Operator's labor earnings (4) - (10)		2533	5191	544

* 5 percent of farm investment (average of beginning and ending inventories).

Table 6. Summary of Farm Earnings (Enterprise Statement)*, 1942

	Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
RETURNS AND NET INCREASES				
All productive livestock	_____	$4996	$8706	$2603
Dairy and dual purpose cows	_____	1258	1858	859
Other dairy and dual purpose cattle	_____	685	1038	441
Beef breeding herd and feeder cattle	_____	103	307	2
Hogs	_____	2124	4110	799
Sheep	_____	82	135	10
Chickens	_____	509	548	492
Turkeys	_____	235	710	0
Crops, seed and feed	_____	135	-16	257
A.A.A. payment	_____	143	257	79
Miscellaneous	_____	81	111	58
Income from work off farm	_____	57	88	46
(1) Total returns and net increase	_____	5412	9146	3043
EXPENSES AND NET DECREASES				
Total power	_____	527	644	505
Hired	_____	77	89	65
Tractor	_____	164	230	78
Truck	_____	24	50	29
Auto (farm share)	_____	116	143	111
Gas engine	_____	8	15	5
Electric plant or current (farm share)	_____	6	2	6
Horses	_____	132	115	211
Crop and general machinery	_____	178	219	158
Buildings and fencing	_____	94	104	167
Livestock equipment	_____	25	42	19
Miscellaneous productive livestock expenses	_____	31	53	12
Miscellaneous crop expenses	_____	136	216	98
Real estate taxes	_____	212	358	138
Personal property tax	_____	17	22	14
Insurance	_____	25	23	25
General farm	_____	6	8	6
Labor	_____	888	1185	788
Interest on farm capital 5%	_____	740	1081	569
(2) Total expenses and net decrease	_____	2879	3955	2499
(3) Operator's labor earnings (1) minus (2)	_____	2533	5191	544

* Cash receipts and expenses are adjusted for changes in inventory for each enterprise and for each item of expense in order to show total receipts and net increases, and total expenses and net decreases. The operator's labor earnings are the same as those on page 6.

ANALYSIS OF THE REASONS FOR DIFFERENCES IN OPERATOR'S EARNINGS

Operator's labor earnings [1] of the 30 farms in 1942 ranged from a loss of $779 on the least profitable farm to $8,077 on the most profitable farm. This was a difference of $8,856. Average earnings of all farms was $2,533. Average earnings for the 10 most profitable farms was $5,191 and for the 10 least profitable farms was $544. The difference between the averages of these two groups was $4,647. Some of the causes for these differences in earnings are beyond the control of the farmer. However, all of these farmers could make some changes in their farming operations which would increase earnings. The more important management factors affecting farm earnings and their relations with earnings are presented in the following tables.

Relation of Crop Yields to Farm Earnings. As indicated in Table 7, farms with poor crop yields had low earnings and farms with good crop yields had high earnings. Even greater differences in earnings would exist if it had not been for severe hail damage to crops on some of the farms studied. 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 expense incurred in securing the higher yields should be given consideration.

High crop yields mean more feed for livestock or more crops to sell. Additional feed means better feeding of the present livestock to increase production or the purchasing of more livestock to consume the extra feed. All this tends to increase farm earnings.

Low crop yields as a result of decreased fertility and damage by wind curtail the total crop production, thus reducing the quantity available to feed or sell. Smaller sales of livestock, livestock products and crops mean less cash receipts. Reseeding of crops damaged by wind represents added expense. All tend to lower farm earnings.

Table 7. Relationship of Crop Yields to Farm Earnings

Index - Crop Yields Group	Average	Number of farms	Average operator's labor earnings
Below 88	80	10	$2465
88 - 110	97	10	2516
111 or more	123	10	2619

[1] The measure of financial success used in this report is called "Operator's Labor Earnings." Operator's labor earnings represents the returns to the operator for his labor and management. It is the difference between the total farm receipts and total farm expenses. Total farm receipts include farm cash receipts, and credit for increases in farm inventory and farm produce used in the house. Total farm expenses include farm cash expenses, deductions for decreases in inventory, cost of board furnished hired help, interest on farm investment, and a charge for unpaid family labor used in the farm business.

Gross Returns from Productive Livestock. The data in Table 8 indicate that large earnings are obtained on farms having high returns from livestock and as the quality of livestock decreases the earnings also decrease. Because livestock is a major source of income on these farms it is important that the crops raised are fed to good livestock. Feeding poor livestock may mean lower farm earnings than if the crops had been sold directly for cash.

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 8. Relationship of Index of Gross Returns from Productive Livestock

Index of Gross Returns from Productive Livestock		Number of farms	Average operator's labor earnings
Group	Average		
Below 89	78	10	$1710
89 - 107	99	10	2850
108 or more	123	10	3041

Amount of Productive Livestock per 100 Acres. The amount of livestock is an important factor only on livestock farms. As shown in Table 9 as the number of animal units of productive livestock per 100 acres increased, operator's earnings increased. It usually pays to increase livestock numbers to what buildings and available labor can handle when livestock return a net profit. On many farms in the Clear Lake area livestock numbers are limited by the amount of available labor, barn room, pasture and feed produced. A few farmers have indicated that the easiest way for them to increase size of business and add to farm earnings with little increase in labor is to rent additional land and put it in small grain, principally rye. As a result these farms have fewer livestock per 100 acres. Consequently they have less manure to use in keeping up the fertility of the land. This is reflected in lower crop yields on the larger farms.

Table 9. Relationship of Amount of Livestock per 100 Acres to Farm Earnings

Animal Units of Productive Livestock per 100 Acres		Number of farms*	Average operator's labor earnings
Group	Average		
Below 9.5	8.2	8	$2117
9.5 - 11.9	10.7	9	2519
12.0 and more	15.6	8	2759

* Five farms with 55 per cent or more of work units on crops were omitted from averages.

Size of Business. Size of business as measured in terms of work units exerted a marked influence upon farm earnings in 1942. Farms with big businesses had larger earnings than farms with small businesses, Table 10. Earnings were greater because the bigger farm businesses permitted a larger volume of business. When farms are making money it pays to increase size of business as long as there is no material decrease in efficiency of operation.

Table 10. Relationship of Size of Business (Work Units) to Farm Earnings

Number of Work Units		Number	Average operator's
Group	Average	of farms	labor earnings
Below 425	338	10	$1117
425 - 599	497	10	1969
600 or more	936	10	4514

Work Units per Worker. Full utilization of all available workers on productive work lowers the labor cost per unit of business and helps to increase farm earnings. Partial employment of available labor during this period when labor is expensive and scarce means high labor cost per unit of business and indicates that the farm is not being operated to fullest capacity of labor. Increasing the size of the farm business by operating additional land or keeping more highly productive livestock provides more work for the available laborers. A farm business with labor requirements evenly distributed helps to keep the family labor busy throughout the year and reduces to a minimum the amount of extra labor to be hired.

Table 11. Relationship of Amount of Work Accomplished per Worker to Farm Earnings

Number of Work Units per Worker		Number	Average operator's
Group	Average	of farms	labor earnings
Below 225	185	10	$1175
225 - 324	262	10	2068
325 or more	404	10	4356

Relationship of Power, Machinery, Equipment and Building Expense to Farm Earnings. This factor works the reverse of those previously mentioned. As the overhead expenses per work unit are reduced, farm earnings tend to increase. Through careful management some of the cash expenses can be reduced. By repairing machinery during slack periods much of the work can be done with the available farm labor and small outlays of cash.

By careful planning the number of work horses kept on some farms could be reduced. This would help to reduce the power expense. Even though many of the horse costs are not cash items they require feed and care that could be devoted to more productive livestock.

Table 12. Relationships of Power, Machinery, Equipment and Building Expense to Farm Earnings*

Expense per Work Unit Group	Average	Number of farms	Average operator's labor earnings
$1.69 or more	$2.12	10	$1369
$1.21 - $1.68	1.44	10	2792
$1.20 or less	.96	10	3438

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

Number of Factors in Which Farmer Excels. From Table 13 it can be seen that a good showing in a large number of factors is associated with high farm earnings. Eight farmers were above average in four or more of the six factors and had the highest earnings ($5,270) of any group. Eight farmers were above average in none or only one of the factors and had the lowest earnings of any group. Only one farmer was above average in all six factors associated with high earnings and he had the highest earnings.

Too frequently the advantages gained by a good showing in one phase of the farm business are offset by poor results in other parts of the farm business. Physical limitations on some farms, such as small business, poor land, buildings or machinery, may make it impossible to excel in all factors. Yet it is desirable that the farm business be developed to the point where it will return maximum earnings. This can be done by continual study of the farm business.

Table 13. Relationship of Number of Factors in Which Farmer is Above Average to Operator's Labor Earnings

Number of factors in which farmer excels	Number of farms	Your farm	Average operator's labor earnings
0 or 1	8	_____	$850
2 or 3	14	_____	1932
4, 5 or 6	8	_____	5270

Table 14. Measures of Farm Organization and Management Efficiency, 1942

Measures used in chart on page 13	Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
Operator's labor earnings	$____	$2,533	$5,191	$ 544
(1) Index of crop yields*	____	100.0	99.9	98.7
(2) Index of gross returns from prod. livestock**	____	100.0	108.1	91.6
(3) Prod. livestock units per 100 acres***	____	10.6	9.4	10.5
(4) Size of business - work units	____	590	910	406
(5) Work units per worker	____	284	379	219
(6) Power, mach., equip. & bldg. exp. per work unit	$____	$1.49	$1.16	$1.97
Items related to some of the above measures:				
(2) Index of gross returns from:				
Dairy cattle	____	100	113	72
Dual purpose cattle	____	100	113	96
Beef cattle	____	100	-	-
Feeder cattle	____	100	-	-
Hogs	____	100	103	97
Sheep - farm flock	____	100	99	-
Turkeys	____	100	-	-
Chickens	____	100	95	109
(4) Work units on crops	____	275	450	172
Work units on productive livestock	____	300	435	222
Work units on other productive work	____	15	25	12
(5) Total number of workers	____	2.1	2.5	2.0
Number of family workers	____	1.7	1.7	1.7
Number of hired workers	____	.4	.8	.3
(6) Power expense per work unit	____	$ .96	$ .74	$1.21
Crop machinery expense per work unit	____	.31	.25	.33
Livestock equipment expense per work unit	____	.04	.05	.05
Bldg. and fence expense per work unit	____	.18	.12	.39

* 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 the 30 farms included in this summary are located between the dotted lines across the center of this page.

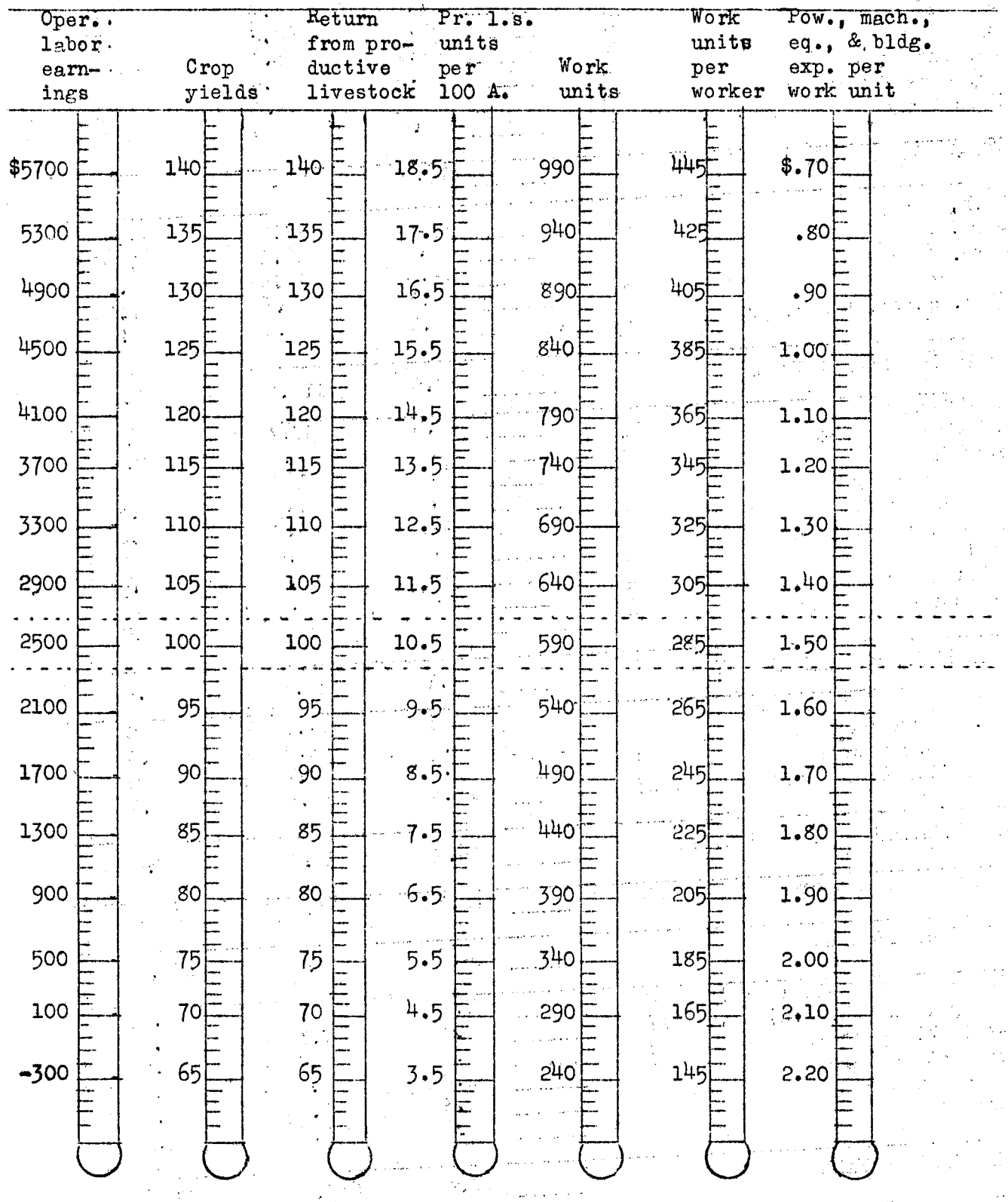

Table 15. Distribution of Acres in Farms, 1942

Crop	Number growing this crop	Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
Wheat, winter	13	_____	5.7	11.0	1.4
Wheat, spring	5	_____	1.8	3.4	.8
Oats	27	_____	39.3	68.8	22.7
Rye	26	_____	61.1	111.0	29.6
Canning peas	2	_____	.8	2.5	0
Soybeans for grain	11	_____	6.9	17.7	0
Miscellaneous grains	2	_____	.5	0	0
TOTAL SMALL GRAIN AND PEAS		_____	116.1	214.4	54.5
Corn, grain	30	_____	49.5	75.5	33.3
Corn, silage	23	_____	12.5	16.2	7.9
Corn, fodder	20	_____	14.4	22.5	12.9
Potatoes	20	_____	.7	.6	1.0
Misc. cultivated crops	13	_____	.4	.4	.6
TOTAL CULTIVATED CROPS		_____	77.5	115.2	55.7
Alfalfa hay	27	_____	20.5	37.7	12.5
Alfalfa-brome hay	3	_____	1.3	.4	2.6
Brome hay	2	_____	1.0	1.0	0
Red clover hay	2	_____	.8	1.5	.8
Soybean hay or hogged off	4	_____	1.1	3.2	.2
Sweet clover-timothy hay	8	_____	.5	.4	0
Timothy	8	_____	5.3	11.0	2.5
Millet or sudan hay	5	_____	1.8	.1	3.5
Wild hay - tillable	4	_____	1.8	4.5	.5
TOTAL TILLABLE LAND IN HAY		_____	34.1	59.8	22.6
Alfalfa and/or brome pasture	7	_____	4.3	10.7	0
Misc. legume pasture	3	_____	1.0	1.0	2.0
Sudan grass pasture	3	_____	.6	1.7	0
Other tillable pasture	13	_____	10.3	16.5	5.0
TOTAL TILLABLE LAND IN PASTURE		_____	16.2	29.9	7.0
Tillable land not cropped	20	_____	10.7	13.5	14.0
TOTAL TILLABLE LAND		_____	254.6	432.8	153.8
Phalaris hay (non-tillable)	2	_____	1.2	0	2.7
Wild hay (non-tillable)	17	_____	6.4	7.1	9.5
Non-tillable pasture	27	_____	85.5	145.8	62.5
Timber not pastured	6	_____	1.2	.7	2.1
Roads and waste		_____	23.3	40.8	19.9
Farmstead		_____	5.6	8.6	5.1
TOTAL ACRES IN FARM		_____	377.8	635.8	255.6

Table 16. Crop Yields per Acre, 1942

		Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
Wheat, winter	bu.	_____	12.8	11.1	-
Wheat, spring	bu.	_____	17.5	-	-
Oats	bu.	_____	21.7	23.5	20.1
Rye	bu.	_____	13.1	12.5	14.5
Soybeans, grain	bu.	_____	7.7	8.0	-
Corn, grain	bu.	_____	37.9	35.5	37.3
Corn, silage	tons	_____	5.4	5.6	5.4
Corn, fodder	tons	_____	1.5	1.5	1.5
Potatoes	bu.	_____	97.5	100.4	94.4
Alfalfa hay	tons	_____	1.4	1.2	1.6
Red clover hay	tons	_____	1.3	-	-
Soybean hay	tons	_____	1.2	-	-
Alfalfa-brome hay	tons	_____	1.5	-	-
Timothy hay	tons	_____	.7	.7	.7
Millet hay	tons	_____	1.4	-	-
Wild hay, non-tillable	tons	_____	1.3	1.1	1.2
INDEX - CROP YIELDS		_____	100.0	99.9	98.7

Table 17. Feed Costs for Horses and Miscellaneous Power and Machinery Expense, 1942

Items	Your farm	Average of 29 farms*	10 most profitable farms	10 least profitable farms
Feed per horse**				
Grain	_____	1679	1211	2492
Hay	_____	3256	2953	3370
Fodder and stover	_____	1195	1223	1221
Feed costs per horse				
Grain	$_____	$21.85	$19.55	$29.23
Roughage	_____	12.14	10.30	12.02
Pasture	_____	1.35	1.43	.69
TOTAL FEED COST	$_____	$35.34	$31.28	$41.94
Number of work horses	_____	3.6	4.1	4.1
Number of colts	_____	.7	1.2	.4
Crop acres per farm	_____	235.3	396.5	145.0
Tractor and horse expense per crop acre	_____	$1.55	$.91	$2.07
Crop and general machine expense per crop acre	_____	.93	.70	$1.06

* One farm did not have horses.

** Two colts equal one horse.

Table 18. Livestock Numbers, Production and Gross Returns,* 1942

	Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
DAIRY CATTLE				
Number of farms reporting		14	5	4
Gross returns per cow		$111.82	$110.47	$78.34
Pounds butterfat per dairy cow		225	199	171
Number head dairy cows		13.5	13.0	11.6
Gross return per head other dairy cattle		$47.50	$35.54	$38.97
Gross return per a.u. all dairy cattle		$100.97	$95.43	$73.06
Number animal units all dairy cattle		21.2	20.8	17.2
DUAL PURPOSE CATTLE				
Number of farms reporting		16	5	6
Gross returns per cow		$79.51	$119.69	$77.32
Pounds butterfat per dual purpose cow		166	244	160
Number head dual purpose cows		13.0	23.4	10.3
Gross ret. per head other dual pur. cattle		$40.58	$37.10	$46.06
Gross ret. per animal unit all d.p. cattle		$79.46	$87.44	$76.62
No. animal units all dual purpose cattle		20.5	41.4	15.8
PRICE RECEIVED PER LB. BUTTERFAT SOLD AS -				
Manufacturing cream (cents)		46.9	47.9	46.1
No. reporting mfg. cream sold		28	9	10
Retail milk (cents)		46.7	47.0	0
No. reporting retail milk sold		3	2	-
SHEEP - FARM FLOCK				
Number of farms reporting		6	3	-
Gross return per head**		$10.68	$10.60	-
Number head sheep		38.3	45.3	-
HOGS				
Number of farms reporting		29	10	10
Gross return per cwt. prod.		$14.95	$15.29	$14.43
Total lbs. hogs prod.		14,511	26,949	5438
Price received per cwt. sold		$13.52	$13.62	$13.80
CHICKENS				
Number of farms reporting		29	9	10
Gross return per hen		$3.68	$3.51	$4.02
Number hens		140	173	118
Eggs laid per hen		123	116	134
Price rec'd. per dozen eggs sold (cents)		33.2	30.5	30.0
TURKEYS				
Number of farms reporting		2	2	0
Gross return per cwt. prod.		$28.92	$28.92	-
Lbs. turkeys produced		11,243	11,242	-

* Gross returns is the net increase or decrease in the value of animal plus returns from products sold if any.

** Two lambs equal one head.

Table 19. Family Living Furnished by the Farm, 1942

		Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
Quantities					
Whole milk	qts.	_____	1031	840	1152
Cream	pts.	_____	391	457	331
Farm-made butter	lbs.	_____	6	-	3
Eggs	doz.	_____	186	138	217
Poultry	lbs.	_____	120	183	103
Cattle	lbs.	_____	219	293	215
Hogs	lbs.	_____	592	750	475
Sheep	lbs.	_____	3	10	-
Farm fuel	cds.	_____	7.2	10.2	5.4
Values					
Whole milk		_____	$44.51	$34.52	$48.17
Cream		_____	49.09	58.74	42.42
Farm-made butter		_____	2.68	-	1.15
Eggs		_____	54.89	40.68	64.02
Poultry		_____	20.86	32.24	17.69
Cattle		_____	21.93	29.30	21.50
Hogs		_____	81.06	102.75	65.98
Sheep		_____	.40	1.20	-
Vegetables and fruit		_____	44.47	58.00	35.50
Farm fuel		_____	39.60	55.40	28.95
Rental value of house*		_____	143.02	165.10	115.60
Total		_____	502.51	577.93	440.98

* Computed at 10 percent of value of house.

Table 20. Summary of Farm Earning by Years

	1941 Average 44 farms	1942 Average 30 farms
FARM RECEIPTS		
Livestock and livestock products	$2640	$4171
Crops	429	208
Miscellaneous	398	330
Total Sales	$3467	$4709
Increase in farm capital	1065	936
Family living from farm	437	503
Total farm receipts	$4969	$6148
FARM EXPENSES		
Livestock purchases	$ 248	$ 265
Feed purchases	300	358
Crop expenses	80	136
Machinery and power	747	749
Buildings and fences	166	221
Hired labor	194	231
Miscellaneous	269	292
Total farm purchases	$2004	$2252
Decrease in farm capital	0	0
Board furnished hired help	42	124
Interest on farm capital	615	740
Unpaid family labor	364	499
Total farm expenses	$3025	$3615
Operator's labor earnings	$1944	$2533

Table 21. Crop Yields per Acre by Years

	1941 Average 44 farms	1942 Average 30 farms
Wheat	11.7	13.9
Oats	22.3	21.7
Rye	10.3	13.1
Corn, grain	26.5	37.9
Corn, silage	6.0	5.4
Corn, fodder	1.5	1.5
Alfalfa hay	1.5	1.4
Soybean hay	0.9	1.2
Millet hay	1.1	1.4
Wild hay	1.1	1.3

Table 22. Distribution of Acres in Farms by Years

	1941 Average 44 farms	1942 Average 30 farms
Wheat	4.9	7.5
Oats	30.5	39.3
Rye	65.2	61.1
Miscellaneous	4.3	8.2
Total small grains	104.9	116.1
Corn	68.1	76.4
Other cultivated crops	1.1	1.1
Total cultivated crops	69.2	77.5
Alfalfa	17.9	20.5
Other tame hay	14.9	13.6
Total tame hay	32.8	34.1
Tillable pasture	13.0	16.2
Tillable land not cropped	21.8	10.7
Total tillable land	241.7	254.6
Wild hay	6.7	7.6
Non-tillable pasture	91.5	85.5
Timber roads and waste	17.9	24.5
Farmstead	6.2	5.6
Total acres in farm	364.0	377.8

Table 23. Livestock Information by Years

	1941 Average 44 farms	1942 Average 30 farms
Dairy Cattle		
Number cows	11.6	13.5
Pounds of butterfat per cow	191	225
Gross returns per cow	$101.53	$111.82
Animal units all dairy cattle	16.9	21.2
Gross return per animal unit	$86.67	$100.97
Dual Purpose Cattle		
Number cows	13.1	13.0
Pounds of butterfat per cow	153	166
Gross return per cow	$80.40	$79.51
Animal units all dual purpose cattle	20.9	20.5
Gross return per animal unit	$71.66	$79.46
Swine		
Pounds of hogs produced	11,328	14,511
Gross return per 100 lbs.	$11.46	$14.95
Poultry		
Number hens	134	140
Eggs per hen	96	123
Gross return per hen	$2.56	$3.68