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UNIVERSITY OF MINNESOTA
Department of Agriculture
and
UNITED STATES DEPARTMENT OF AGRICULTURE
Bureau of Agricultural Economics
and the
County Extension Services of
Brown, Cottonwood, Faribault, Jackson, Lincoln, Lyon,
Martin, Murray, Nobles, Redwood and Watonwan Counties
and the
Southwest Minnesota Farm Management Association
Cooperating

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Annual Report
of the
Southwestern Minnesota
Farm Management Service
1940

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Cooperator: _____

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Division of Agricultural Economics
University Farm
St. Paul, Minnesota
April 1941

First Annual Report of the Southwest Minnesota Farm
Management Service of Brown, Cottonwood, Faribault,
Jackson, Lincoln, Lyon, Martin, Murray, Nobles,
Redwood, and Watonwan Counties
for the Year 1940

Prepared by T. R. Nodland, G. A. Pond, and G. E. Toben

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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 several southwestern Minnesota counties are cooperating with the Southwest Minnesota Farm Management Association in maintaining a farm management service. The Association was organized in the fall of 1939 by farmers in that part of the state for the purpose of studying the farm business through farm records. Each farmer pays an annual fee which covers a part of the cost. The balance of the cost is defrayed by the University of Minnesota.

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.

The analysis of the records and the preparation of the reports is handled by the Division of Agricultural Economics under the Direction of G. A. Pond, T. R. Nodland, and G. E. Toben. Field organization is handled by the Extension Division with S. B. Cleland and J. B. McNulty in charge of this work. Ross Huntsinger has been fieldman since the organization of the project. At the end of the year A. W. Anderson and Max Hinds of the Division of Agricultural Economics aided in closing the records. County Agricultural extension agents who cooperate in this project include Paul Kunkel, E. C. Rogers, C. G. Gaylord, L. S. Orfield, T. G. Fuller, F. J. Meade, C. G. Powell, A. B. Hagen, C. E. Stower, J. I. Swedberg, and J. R. Gute.

The officers for the Southwest Farm Management Association for 1940 were:

President, W. E. Jones, Marshall, Lyon County
 Vice President, Porter Olstad, Hanska, Brown County
 Secretary-Treasurer, E. F. Oberg, Hadley, Murray County

The board of directors include these officers and also the following: Earl Ewen, Cottonwood County; Ed Stevermer, Faribault County; George Rentschler, Jackson County; Joe Boulton, Lincoln County; Paul H. Peters, Martin County; Gordon Fresk, Murray County; Bedford Ludlow, Nobles County; Thomas Hicks, Redwood County; and Duane Drake, Watonwan County.

The following tabulation shows by counties the numbers of members who completed records in 1940:

Brown	14	Lincoln	9	Nobles	21
Cottonwood	15	Lyon	12	Redwood	21
Faribault	22	Martin	16	Watonwan	<u>11</u>
Jackson	20	Murray	14	Total	175

The tables on page 4 and succeeding pages show 165 farms. Ten 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 sufficiently complete for a full analysis.

TYPE OF FARMING*

The farms in this area have a wide diversity of enterprises. All classes of livestock are important although livestock kept for meat production tends to predominate. The sale of crops constitutes an important source of income. The principal feed crops grown are corn, oats, barley, and hay. In addition wheat, sweet corn, canning peas, and flax are grown to a limited extent as cash crops.

TOPOGRAPHY, SOILS, AND WEATHER

The soils range from dark brown to heavy black loam. The major part of the area is undulating to gently rolling land interspersed with almost level tracts. In the western part of the area the surface ranges from undulating to sharply rolling. Nearly all the land is tillable and well drained.

The year 1940 as a whole was normal in regard to temperatures. Unfavorable weather conditions in the early spring delayed the seeding of small grain; however the growing conditions in May and June were favorable. Corn was injured to some extent by hot, dry weather in the latter part of July. Weather conditions in September and October were very favorable for late crops and pasture. The first killing frost occurred about October 15.

* For a more complete description of the area see Engene, S. A., and Pond, G. A., "Agricultural Production and Types of Farming in Minnesota", Minn. Bul. 347, May, 1940.

Table 1. Monthly and Annual Precipitation

	Worthington		Fairmont		New Ulm		Redwood Falls	
	Precipitation	Departure from normal	Precipitation	Departure from normal	Precipitation	Departure from normal	Precipitation	Departure from normal
	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches
January	Trace	-0.63	0.23	-0.57	0.72	-0.41	0.13	-0.60
February	.82	+0.05	0.70	-0.27	1.56	+0.50	0.80	-0.07
March	1.96	+0.70	1.35	-0.06	3.50	+1.89	1.93	+0.68
April	2.75	+0.67	1.57	-0.66	1.90	-0.29	1.63	-0.30
May	1.20	-2.74	2.12	-1.93	1.66	-1.91	2.48	-0.38
June	5.67	+1.38	4.84	+0.50	7.32	+2.67	4.75	+0.26
July	.34	-3.05	0.60	-2.96	0.52	-3.16	0.91	-2.13
August	2.77	-0.99	8.80	+5.06	10.07	+6.52	7.18	+4.20
September	.70	-2.84	1.41	-2.22	1.05	-2.54	0.49	-2.37
October	2.81	+1.12	3.38	+1.53	4.63	+2.47	2.77	+1.10
November	2.72	+1.55	2.56	+1.05	2.45	+1.14	1.80	+0.59
December	.76	+0.15	1.16	+0.26	1.52	+0.62	1.08	0.00
1940 Total	22.50	-4.63	28.72	-0.27	36.90	+7.50	25.95	+0.98
1939 Total	24.27	-2.86	21.92	-7.07	23.04	-6.36	18.52	-6.45
1938 Total	40.50	+13.37	39.99	+11.00	29.98	+0.58	26.84	+1.87
Normal Annual Prec.	27.13		28.99		29.40		24.97	

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, Ross Huntsinger, who visited each farm in the eleven 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 produce were charged.

At the end of the year, the books were taken to the central office at University Farm, where they were 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 165 farms	33 most profitable farms	33 least profitable farms
Size of farm (acres)		279	402	236
Size of business (work units)*		569	774	457
Horses	\$	\$ 377	\$ 408	\$ 430
Productive livestock (total)		3,497	5,728	2,674
Dairy and dual purpose cows		574	588	480
Other dairy & dual purpose cattle		374	426	219
Beef cattle (including feeders)		1,530	3,238	990
Hogs		550	758	575
Sheep (including feeders)		327	617	245
Poultry (including turkeys)		142	101	165
Crop, seed, and feed		3,616	5,613	2,757
Mach. & equipment (total)		2,658	3,659	2,257
Power mach. (f. share)		998	1,391	774
Crop & gen. mach. (f. share)		1,283	1,832	1,064
Livestock equip. & supplies		377	436	419
Buildings, fences, etc.		6,974	8,734	6,829
Land		15,011	21,636	12,809
Total farm capital		32,133	45,778	27,756

* 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 dual purpose cows	cow	13.5	Small grain	acre	.7
Other dairy & dual purpose cattle) animal	4.0	Soybeans for grain	"	.9
Beef breeding herd) unit*	4.0	Sugar beets	"	3.0
Sheep - farm flock)	1.6	Sweet corn	"	2.5
Hens	100 hens	26.0	Corn, husked	"	1.3
Feeder cattle)	.35	Corn, hogged	"	.8
Feeder sheep) 100 lbs.	.4	Corn, shredded	"	2.5
Hogs) produced	.25	Corn silage	"	1.9
Turkeys)	.7	Corn fodder	"	1.3
Canning peas	acre	2.0	Alfalfa hay	"	1.0
			Soybean hay	"	1.4
			Other hay crops	"	.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 165 farms	33 most profitable farms	33 least profitable farms
Horses	\$ _____	\$ 362	\$ 392	\$ 389
Productive livestock (total)	_____	3,917	6,986	2,847
Dairy & dual purpose cows	_____	599	642	492
Other dairy & dual purpose cattle	_____	377	495	259
Beef cattle	_____	1,716	3,933	1,039
Hogs	_____	636	936	571
Sheep	_____	442	859	319
Poultry	_____	147	121	167
Crop, seeds, and feed	_____	4,075	6,653	2,860
Mach. & equipment (total)	_____	2,859	4,031	2,421
Power machinery (f. share)	_____	1,093	1,489	905
Crop and gen. machinery	_____	1,372	2,081	1,109
Livestock equipment & supplies	_____	394	461	407
Buildings, fences, etc.	_____	7,090	9,022	6,847
Land	_____	15,011	21,636	12,809
Total farm capital	_____	33,314	48,720	28,173

Summary of Amount of Livestock

Items	Your farm	Average of 165 farms	33 most profitable farms	33 least profitable farms
No. of horses	_____	4.1	4.5	4.5
No. of colts	_____	1.0	.9	1.0
No. of dairy & dual purpose cows	_____	8.6	8.3	8.0
Head of other dairy & dual purpose cattle	_____	9.0	8.1	7.5
Head of cattle kept in beef breeding herd	_____	9.0	14.5	6.9
Pounds of beef cattle produced	_____	8,678	21,539	4,031
Litters of pigs	_____	13.6	17.9	13.3
Pounds of hogs produced	_____	21,335	32,231	18,101
Head of sheep (2 lambs = 1 head)	_____	40.5	61.4	35.6
No. of hens	_____	161	146	145
Total no. of prod. livestock animal units	_____	55.3	91.8	41.3
% of total that are:				
Dairy and dual purpose cows	_____	21.7	14.5	24.1
Other dairy and dual purpose cows	_____	12.9	8.3	11.9
In beef breeding herd	_____	11.3	14.9	10.8
Feeder cattle	_____	18.1	31.2	12.6
Native sheep	_____	5.1	4.1	5.3
Feeder sheep	_____	3.5	4.5	3.5
Hogs	_____	21.1	18.4	24.5
Turkeys	_____	2.2	1.5	3.3
Hens	_____	4.1	2.6	4.0
Number of farms with tractors	_____	155	32	29

Summary of Farm Earnings (Cash Statement), 1940

Items	Your farm	Average of 165 farms	33 most profitable farms	33 least profitable farms
FARM EXPENSES				
Horses bought	\$	\$ 32	\$ 51	\$ 31
Dairy and dual purpose cows bought		33	33	26
Oth. dairy & dual purpose cattle bought		43	62	24
Beef cattle bought (including feeders)		1243	2679	760
Hogs bought		103	128	85
Sheep bought (including feeders)		414	811	292
Poultry bought (including turkeys)		99	131	91
Misc. crop expenses		243	406	166
Feed bought		1007	1821	861
Power mach. (farm share) (new)		379	459	376
Power mach. (farm share) (upkeep)		411	560	354
Custom work hired		150	173	127
Crop and general mach. (new)		319	683	231
Crop and general mach. (upkeep)		69	98	57
Livestock equipment (new)		74	84	43
Livestock equipment (upkeep)		20	25	17
Misc. livestock expense		72	98	68
Buildings and fencing (new)		412	621	339
Buildings and fencing (upkeep)		88	125	83
Hired labor		392	630	312
Taxes		313	472	273
Insurance		15	20	10
General farm		59	72	59
(1) Total farm purchases		5990	10242	4685
(2) Decrease in farm capital		-	-	-
(3) Board furnished hired labor		131	194	103
(4) Interest on farm capital		1635	2362	1398
(5) Unpaid family labor		252	316	257
(6) Total farm expenses (Sum of (1) to (5))		8008	13114	6443
FARM RECEIPTS				
Horses		42	56	67
Dairy and dual purpose cows		110	122	66
Dairy products		570	582	429
Other dairy and dual purpose cattle		155	127	93
Beef cattle (including feeders)		2373	5160	1343
Hogs		1162	1673	1067
Sheep and wool (including feeders)		470	839	363
Poultry (including turkeys)		372	521	262
Eggs		244	210	267
Corn		516	749	343
Small grain		849	1461	521
Other crops		239	381	176
Power machinery sold		168	208	136
Crop and gen. mach. sold		81	185	45
Misc.		394	607	219
Income from work off the farm		193	262	82
Agricultural adjustment payments		506	795	417
(7) Total farm sales		8444	13938	5896
(8) Increase in farm capital		1179	2944	416
(9) Farm prod. used in house + house rent		483	555	475
(10) Total farm receipts (7)+(8)+(9)		10106	17437	6787
(6) Total farm expenses		8008	13114	6443
(11) Operator's labor earnings (10)-(6)		2098	4323	344

Summary of Farm Earnings (Enterprise Statement), 1940 (A)				
Items	Your farm	Average of 165 farms	33 most profitable farms	33 least profitable farms
<u>EXPENSES AND NET DECREASES</u>				
Total power	\$ _____	\$ 674	\$ 876	\$ 646
Horses	_____	144	182	160
Tractor	_____	231	303	204
Truck	_____	67	138	54
Auto (farm share)	_____	137	144	139
Gas engine (farm share)	_____	2	2	4
Elec. plant or current (farm share)	_____	32	38	35
Hired power	_____	61	69	50
Crop and general machinery	_____	223	315	203
Livestock equipment	_____	67	76	65
Buildings, fencing and tiling	_____	240	325	270
Misc. productive livestock expense	_____	70	96	66
Labor	_____	807	1,176	698
Real estate taxes	_____	269	395	242
Personal property tax	_____	44	77	31
Insurance	_____	15	20	10
General farm	_____	59	72	59
Interest on farm capital	_____	1,636	2,362	1,398
(1) Total expenses & net decreases	_____	4,104	5,790	3,688
<u>RETURNS AND NET INCREASES</u>				
All productive livestock	_____	\$4,194	\$6,935	\$3,011
Dairy and dual purpose cows	_____	682	732	547
Other dairy & dual purpose cattle	_____	294	259	194
Beef breeding herd	_____	268	490	186
Feeder cattle	_____	1,035	2,724	457
Hogs	_____	1,176	1,760	1,003
Sheep - farm flock	_____	108	143	110
Sheep - feeders	_____	71	160	39
Turkeys	_____	233	321	226
Chickens	_____	327	346	249
Crops, seed and feed	_____	939	1,573	266
Income from work off the farm	_____	193	262	82
Agricultural conservation payments	_____	506	795	417
Miscellaneous	_____	370	548	256
(2) Total returns & net increases	_____	6,202	10,113	4,032
(1) Total expenses & net decreases	_____	4,104	5,790	3,688
(3) Oper. labor earnings (2) minus (1)	_____	2,098	4,323	344

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

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 33 most profitable farms was \$4,323, and for the 33 least profitable farms \$344. The difference between the averages for these two groups was \$3,979. Some of the causes for these differences in earnings may be beyond the control of the farmer. It is significant, however, that the data in this report indicate that there are several factors which show definite relationships with operator's labor earnings and which suggest opportunities for increased earnings. The more important of these factors and their relationship with earnings are presented in the following tables.

Table 2. Relation of Crop Yields to Farm Earnings

Per cent crop yields were of the average for all 165 farms		No. of farms	Average operator's labor earnings
Group	Average		
Below 86	78	33	\$1,308
86-113	100	100	2,282
114 and above	123	32	2,338

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 3. 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 31.0	27.8	41	\$1,883
31.0-39.9	35.1	84	2,025
40.0 & above	46.0	40	2,472

*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, 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 4. 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 88	72	41	\$1,278
89-111	100	79	2,352
112 and above	126	45	2,398

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

The majority of these farms are livestock farms. A large proportion of the crops raised are fed on the farm and some additional feed is purchased. Feed is the major item of cost in livestock production and livestock constitute an important 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 acres*		No. of farms	Average operator's labor earnings
Group	Average		
Below 16.5	12.1	53	\$1,970
16.5-25.4	20.9	64	1,953
25.5 and above	34.7	48	2,434

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

The information in Table 5 shows the farms with a small amount of livestock to be as profitable as those with an average amount of livestock. However, an examination of the farms in these two groups shows that several very specialized crop farms with very little livestock are included in the group having less than 16.5 productive livestock units per 100 acres. If the farmers receiving more than 40 percent of their income from crops were to be omitted from the averages the operator's labor earnings of the group with a small amount of livestock would be \$1,482. 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 6. Relation of Size of Business (Work units) to Farm Earnings

No. of work units		No. of farms	Average operator's labor earnings
Group	Average		
Below 400	337	42	\$1,247
400-699	546	87	2,021
700 and above	894	36	3,277

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. The size of the farm business may be increased by farming more land, by keeping more livestock, or by keeping livestock or growing crops of a more intensive type.

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

Work unit per worker Group	Average	No. of farms	Average operator's labor earnings
Below 215	180	39	\$1,479
215-299	253	86	2,205
300 and above	363	40	2,472

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

Expense per work unit Group	Average	No. of farms	Average operator's labor earnings
\$2.65 and above	\$3.38	39	\$1,773
\$1.60-\$2.64	2.01	86	2,122
Below \$1.60	1.32	40	2,363

*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 9.

Table 9: 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	3	=====	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	\$4,446
Six	13	=====	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3,285
Five	27	=====	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3,078
Four	28	=====	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	2,085
Three	43	=====	XXXXXXXXXXXXXXXXXXXX	2,030
Two	34	=====	XXXXXXXXXXXX	1,411
One or none	17	=====	XXXXXXX	848

The array in Table 9 indicates that it will be worthwhile 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 165 farms	33 most profit- able farms	33 least profit- able farms
Operator's Labor Earnings	\$ _____	\$2,098	\$4,323	\$344
(1) Crop yields*	_____	100	107	94
(2) % of tillable land in high return crops**	_____	35.9	38.1	34.4
(3) Ret. for \$100 feed to prod. livestock***	_____	100	107	90
(4) Prod. livestock units per 100 acres****	_____	22.1	24.5	19.9
(5) Size of business - work units	_____	569	774	457
(6) Work units per worker	_____	263	288	223
(7) Pow., mach., equip., & bldg. exp. per work unit \$	_____	\$2.17	\$1.99	\$2.65

Measures and items related to some of the
above measures:

(3) Index of return for \$100 feed from -				
Dairy cattle	_____	100	96	87
Dual purpose cattle	_____	100	114	98
Beef cattle - breeding herd	_____	100	108	90
Beef cattle - feeders	_____	100	104	99
Hogs	_____	100	113	91
Sheep - farm flock	_____	100	119	76
Sheep - feeders	_____	100	97	63
Turkeys	_____	100	108	78
Chickens	_____	100	108	94
(5) Work units on crops	_____	214	312	181
Work units on productive livestock	_____	306	395	255
Other work units	_____	49	67	21
(6) Total number of workers	_____	2.2	2.8	2.1
Number of family workers	_____	1.5	1.6	1.4
Number of hired workers	_____	.7	1.2	.7
(7) Power expense per work unit	\$ _____	\$1.22	\$1.11	\$1.44
Crop machinery expense per work unit	_____	.40	.40	.45
Livestock equip. expense per work unit	_____	.12	.10	.16
Bldgs. and fencing exp. per work unit	_____	.43	.38	.60

* Given as a percentage of the average.

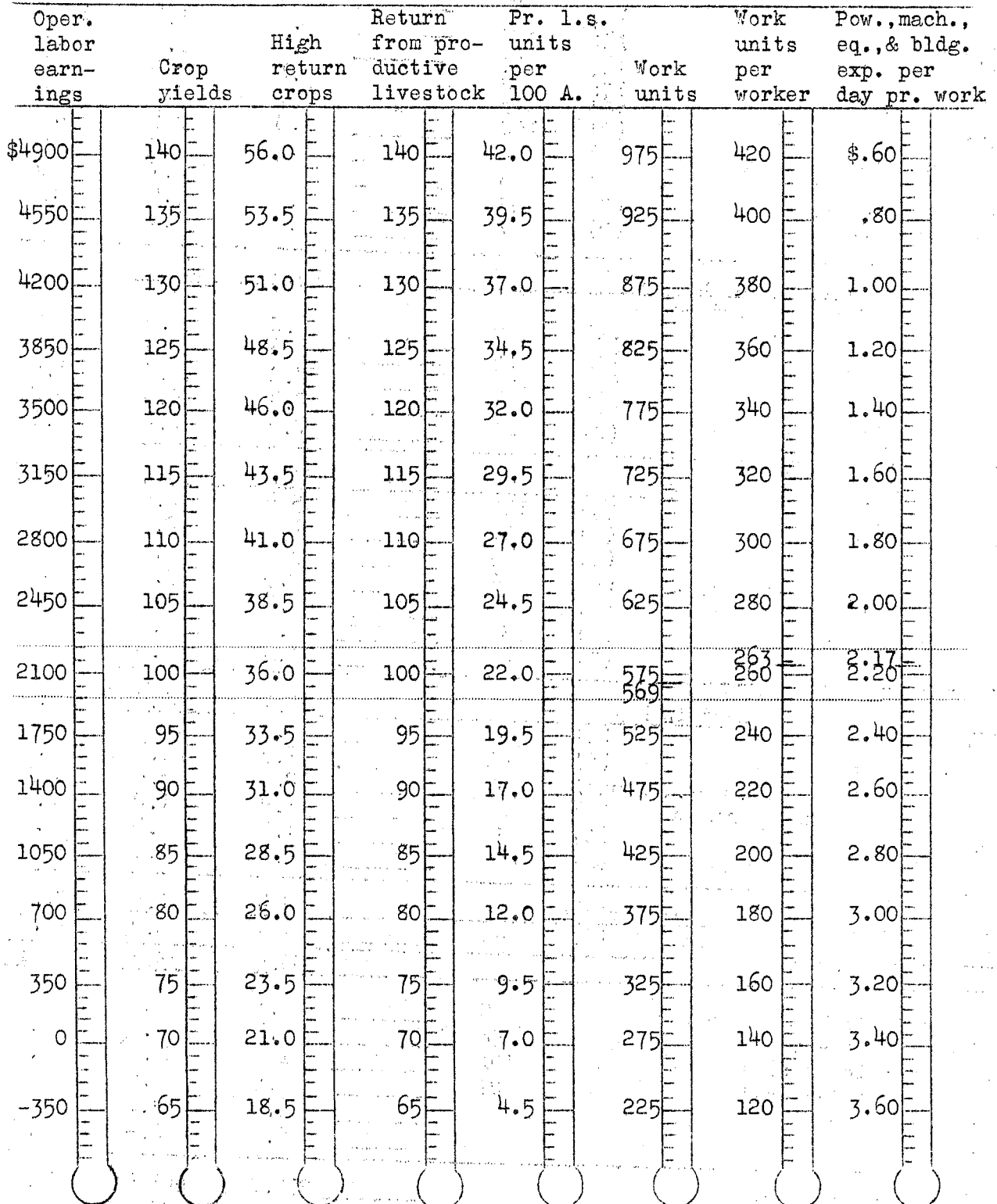
** Crops are marked on page 14 as (A), (B), (C) and (D). All of acres in (A) crops, one-half of acres in (B) crops, and one-fourth of acres in (C) crops are used in calculating per cent of tillable land in high return crops.

*** 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 165 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 165 farms	33 most profitable farms	33 least profitable farms
Canning peas (A)	10	_____	1.3	.8	.2
Flax (B)	136	_____	32.0	50.5	24.2
Barley (C)	108	_____	24.6	41.4	16.6
Barley and oats (C)	11	_____	2.1	3.3	.8
Winter wheat (C)	3	_____	.1	0	0
Spring wheat (D)	63	_____	4.6	8.2	4.5
Oats (D)	152	_____	40.3	49.5	35.0
Oats and wheat (D)	6	_____	.5	0	.9
Rye (D)	13	_____	1.1	1.7	2.5
Soybeans for grain (D)	32	_____	2.0	5.6	.9
Miscellaneous (D)	7	_____	.8	1.1	0
Total Small Grain and Peas			109.4	162.1	85.6
Sugar beets, hybrid seed corn, potatoes and truck crops (A)	71	_____	4.2	10.0	4.4
Sweet corn (B)	7	_____	.6	.8	.3
Corn grain (B)	163	_____	57.3	79.8	43.6
Corn silage (C)	89	_____	7.4	10.5	5.2
Corn fodder (D)	62	_____	2.6	2.4	4.8
Total cultivated crops			72.1	103.5	58.3
Alfalfa hay (A)	151	_____	15.6	22.6	13.6
Sweet clover hay (B)	21	_____	1.6	2.3	2.2
Soybean hay (C)	69	_____	3.0	2.8	2.1
Mixed legumes & non-legumes (C)	26	_____	2.3	3.0	1.3
Legumes for seed (C)	12	_____	.8	2.3	.5
Timothy and/or brome (D)	36	_____	2.0	2.3	1.9
Other annual hay (D)	41	_____	1.4	2.4	.5
Total tillable land in hay			26.7	37.7	22.1
Alfalfa pasture (A)	43	_____	1.5	2.4	1.3
Sweet clover pasture (B)	65	_____	7.9	13.1	9.4
Mixture incl. alf., sw. clov., brome (B)	30	_____	2.4	3.4	2.4
Other legumes and mixtures (C)	29	_____	1.9	1.2	1.6
Sudan grass pasture (C)	38	_____	1.7	2.4	1.5
Other tillable pasture (D)	86	_____	8.0	8.9	11.6
Total tillable land in pasture			23.4	31.4	27.8
Tillable land not cropped (D)	41	_____	2.0	3.9	1.3
Total tillable land			233.6	338.6	195.1
Phalaris hay (non-tillable)	5	_____	.1	.1	.2
Wild hay (non-tillable)	58	_____	4.7	5.4	5.5
Non-tillable pasture	101	_____	21.1	31.4	18.5
Timber (not pastured)	22	_____	.5	.6	1.1
Roads and waste		_____	9.6	14.1	7.3
Farmstead		_____	9.1	11.4	8.2
Total acres in farm			278.7	401.6	235.9
% land tillable			84.8	87.4	82.3
% tillable land in high return crops			35.7	36.9	34.4

Crop Yields per Acre, 1940

Crop	Your farm	Average 165 farms	33 most profitable farms	33 least profitable farms
Canning peas, value above seed cost	\$ _____	\$39.93	\$34.40	\$28.99
Flax, bu.	_____	13.7	14.5	11.3
Barley, bu.	_____	42.3	45.8	36.8
Barley and oats, bu.	_____	53.7	61.4	49.7
Winter wheat, bu.	_____	25.2	-	-
Spring wheat, bu.	_____	23.6	26.7	20.5
Oats, bu.	_____	60.1	66.2	58.2
Oats and wheat, bu.	_____	60.9	-	60.1
Rye, bu.	_____	19.9	23.1	16.3
Soybeans for grain, bu.	_____	14.4	14.6	12.8
Sweet corn, tons	_____	2.9	3.2	1.5
Corn, grain, bu.	_____	46.2	48.9	43.4
Corn silage, tons	_____	8.5	8.9	8.7
Corn fodder, tons	_____	3.3	4.1	3.3
Alfalfa hay, tons	_____	2.0	2.0	2.1
Sweet clover hay, tons	_____	1.4	1.8	1.1
Soybean hay, tons	_____	1.6	1.6	1.4
Mixed legume & non-legume hay, tons	_____	1.4	1.3	1.7
Legumes for seed, lbs.	_____	138.1	102.6	202.7
Timothy and/or brome hay, tons	_____	1.4	1.8	1.9
Other annual hay, tons	_____	1.7	1.5	3.2
Phalaris hay on non-tillable land, tons	_____	1.9	.8	5.0
Wild hay, tons	_____	1.3	1.2	1.2

Factors of Cost and Returns From Dairy Cows, 1940

Items	Your farm	Average of 78 farms	16 farms highest in returns above feed	16 farms lowest in returns above feed
Pounds of butterfat per cow		250	328	188
Feeds per cow, lbs.:				
Corn		924	1,016	1,037
Small grain		1,496	1,675	1,781
Com. feeds - under 25% protein		41	2	5
Com. feeds - over 25% protein		93	112	114
Legume hay		3,570	3,518	4,043
Other hay		450	198	839
Fodder and stover		399	619	229
Total concentrates		2,554	2,805	2,937
Total dry roughage		4,419	4,335	5,111
Silage		5,310	5,620	5,220
Total digestible nutrients*		5,025	5,183	5,691
T.D.N. per lb. B. F.		21.0	15.9	30.6
% T.D.N. that is protein		14.1	14.0	14.2
Feed cost per cow:				
Concentrates	\$	\$21.34	\$23.13	\$24.44
Roughages		19.63	19.05	21.87
Pasture		5.53	5.29	5.59
TOTAL FEED COSTS	\$	\$46.50	\$47.47	\$51.90
Value of produce per cow:				
B. F. sales	\$	\$71.54	\$110.86	\$43.20
Dairy produce used in house		7.28	5.42	11.67
Milk to livestock		11.23	12.77	8.24
Net increases in value of cows		-52	2.58	-2.89
TOTAL VALUE PRODUCED		\$89.53	\$131.63	\$60.22
RETURNS ABOVE FEED COST PER COW	\$	\$43.03	\$84.16	\$ 8.32
RETURNS FOR \$100 OF FEED	\$	\$199	\$278	\$121
Price received per lb. B. F. sold				
As manufacturing cream (cents)		31.2	33.1	29.6
As mkt. mk. & cm. & mk. for cheese (cts.)		47.8	56.0	39.3
Feed cost per lb. B. F. (cents)		19.4	14.5	27.7
% fall freshening		52.0	61.0	32.0
Number of dairy cows**		11.5	11.2	11.0

*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 72 farms*	14 farms highest in returns above feed	14 farms lowest in returns above feed
Feeds per head, lbs.:				
Concentrates	_____	674	777	642
Hay and fodder	_____	1,464	1,090	2,042
Silage	_____	1,917	1,785	2,516
Whole milk	_____	379	608	240
Skim milk	_____	1,308	1,590	1,301
Feed cost per head:				
Concentrates	\$ _____	\$ 5.46	\$ 6.39	\$ 5.05
Roughages	_____	6.70	5.53	9.30
Milk	_____	6.64	9.89	5.01
Pasture	_____	3.48	2.95	3.39
TOTAL FEED COSTS	\$ _____	\$22.28	\$24.76	\$22.75
Net inc. in value of other dairy cattle	_____	\$31.94	\$53.38	\$17.02
RETURNS ABOVE FEED COST PER HEAD	\$ _____	\$ 9.66	\$28.62	\$-5.73
RETURNS FOR \$100 OF FEED	\$ _____	\$150	\$234	\$74
Number of head of other dairy cattle	_____	12.6	13.3	12.1

Feed Costs and Returns From All Dairy Cattle

Items	Your farm	Average of 78 farms	16 farms highest in returns above feed	16 farms lowest in returns above feed
Feeds per animal unit, lbs.:				
Concentrates	_____	2,139	2,472	2,546
Hay and fodder	_____	3,852	4,033	4,460
Silage	_____	4,480	3,922	5,059
Feed cost per animal unit:				
Concentrates	\$ _____	\$17.80	\$20.83	\$21.28
Roughages	_____	16.94	16.79	19.58
Pasture	_____	6.08	5.94	6.25
TOTAL FEED COSTS	\$ _____	\$40.82	\$43.56	\$47.11
Value of produce per animal unit:				
Dairy products	\$ _____	\$55.82	\$79.05	\$40.15
Net increase in value of dairy cattle	_____	18.83	25.38	12.33
TOTAL VALUE PRODUCED	\$ _____	\$74.65	\$104.43	\$52.48
RETURNS ABOVE FEED PER ANIMAL UNIT	\$ _____	\$33.83	\$60.87	\$ 5.37
RETURNS FOR \$100 OF FEED	\$ _____	\$189	\$241	\$115
Animal units of dairy cattle	_____	17.7	18.0	15.4

* Several farmers 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 50 farms	10 farms highest in returns above feed	10 farms lowest in returns above feed
Pounds of butterfat per cow		179	224	137
Feeds per cow, lbs.:				
Corn		565	454	880
Small grain		927	839	1,117
Com. feeds - under 25% protein		2	1	4
Com. feeds - over 25% protein		8	6	8
Legume hay		2,981	1,925	3,615
Other hay		843	1,193	599
Fodder and stover		409	220	443
Total concentrates		1,502	1,300	2,009
Total dry roughage		4,233	3,338	4,657
Silage		4,132	5,222	4,210
Total digestible nutrients*		3,926	3,517	4,543
T.D.N. per lb. B.F.		22.8	15.6	33.3
% T.D.N. that is protein		13.8	12.9	13.8
Feed cost per cow:				
Concentrates	\$	\$11.99	\$10.55	\$15.36
Roughages		17.03	14.51	19.25
Pasture		5.83	5.79	5.84
TOTAL FEED COSTS	\$	\$34.85	\$30.85	\$40.45
Value of produce per cow:				
B.F. sales	\$	\$43.57	\$51.94	\$32.87
Dairy produce used in house		7.90	12.08	5.91
Milk to livestock		9.22	11.33	8.06
Net increases in value of cows		.65	2.48	-2.44
TOTAL VALUE PRODUCED	\$	\$61.34	\$77.83	\$44.40
RETURNS ABOVE FEED COST PER COW	\$	\$26.49	\$46.98	\$ 3.95
RETURNS FOR \$100 OF FEED	\$	\$185	\$262	\$110
Price received per lb. B.F. sold				
As manufacturing cream (cents)		30.0	30.1	29.9
Feed cost per lb. B.F. (cents)		20.2	13.8	29.6
% fall freshening		46.0	42.0	36.0
Number of dual purpose cows		9.9	9.1	12.0

*Not including nutrients received from pasture.

Feed Costs and Returns From Other Dual Purpose Cattle, 1940

Items	Your farm	Average of 39 farms*	10 Farms highest in returns above feed	10 Farms lowest in returns above feed
Feeds per head, lbs.:				
Concentrates	_____	742	791	877
Hay and fodder	_____	1633	1652	2118
Silage	_____	1228	768	1469
Whole milk	_____	204	136	158
Skimmilk	_____	1223	1134	801
Feed cost per head:				
Concentrates	\$ _____	\$5.94	\$6.32	\$6.97
Roughages	_____	6.07	5.76	7.71
Milk	_____	4.42	3.42	3.29
Pasture	_____	3.43	2.48	4.41
TOTAL FEED COSTS	\$ _____	\$19.86	\$17.98	\$22.38
Net increase in value	\$ _____	\$30.39	\$41.48	\$21.25
RETURNS ABOVE FEED COST PER HEAD	\$ _____	\$10.53	\$23.50	\$-1.13
RETURNS FOR \$100 OF FEED	\$ _____	\$163	\$243	\$98
No. of head of other dual purpose cattle	_____	16.6	19.3	18.6

Feed Costs and Returns From All Dual Purpose Cattle

Items	Your farm	Average of 51 farms	10 Farms highest in returns above feed	10 Farms lowest in returns above feed
Feeds per animal unit, lbs.:				
Concentrates	_____	1477	1324	2089
Hay and fodder	_____	3848	3291	4739
Silage	_____	3875	4633	4778
Feed cost per animal unit:				
Concentrates	\$ _____	\$11.78	\$10.78	\$16.42
Roughages	_____	15.48	14.49	19.69
Pasture	_____	6.11	5.55	6.64
TOTAL FEED COSTS	\$ _____	\$33.37	\$30.82	\$42.75
Value of produce per animal unit:				
Dairy products	\$ _____	\$37.23	\$51.43	\$25.74
Net increase in value	_____	20.40	24.27	16.71
TOTAL VALUE PRODUCED	\$ _____	\$57.63	\$75.70	\$42.45
RETURNS ABOVE FEED PER ANIMAL UNIT	\$ _____	\$24.26	\$44.89	\$ -.30
RETURNS FOR \$100 OF FEED	\$ _____	\$184	\$256	\$105
Animal units of dual purpose cattle	_____	16.5	13.7	18.7

* Several farmers 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:		42	8	8
Feeds per animal unit, lbs.:				
Concentrates		1418	1535	1939
Legume hay		1824	2757	2221
Other hay		628	319	899
Fodder and stover		438	722	166
Silage		2833	1540	6808
Skimmilk*		345	250	205
Whole milk*		79	135	59
Feed cost per animal unit:				
Concentrates	\$	\$11.34	\$12.08	\$15.73
Roughages		11.19	13.15	16.58
Milk*		1.53	2.25	.96
Pasture		5.80	4.11	6.98
TOTAL FEED COSTS	\$	\$29.86	\$31.59	\$40.25
Value of produce per animal unit:				
Dairy products	\$	\$ 7.00	\$17.28	\$ 1.41
Net increase in value of animals		41.06	52.71	34.15
TOTAL VALUE PRODUCED	\$	\$48.06	\$69.99	\$35.56
RETURNS ABOVE FEED COST PER ANIMAL UNIT	\$	\$18.20	\$38.40	\$-4.69
RETURNS FOR \$100 OF FEED	\$	\$172	\$237	\$95
Number of cows and herd bulls		12.8	16.3	12.4
Number of animal units in the herd		23.1	24.8	22.4
Feeder cattle: no. of farms:		75	15	15
Feeds per cwt. beef produced, lbs.:				
Corn		596	534	773
Small grain		110	76	172
Com. feeds - under 25% protein		8	4	13
Com. feeds - over 25% protein		26	17	36
Legume hay		270	230	262
Other hay		64	43	135
Fodder and stover		44	55	29
Total concentrates		740	631	994
Total dry roughages		378	328	426
Silage		555	398	1168
% of T.D.N. in ration that is protein		11.7	11.6	11.0
Feed cost per cwt. beef produced:				
Concentrates	\$	\$ 5.92	\$ 5.04	\$ 7.94
Roughages		1.70	1.39	2.41
Pasture		.38	.16	.67
TOTAL FEED COSTS	\$	\$ 8.00	\$ 6.59	\$11.02
Net increase in value of feeders	\$	\$10.92	\$13.31	\$ 8.68
RETURNS ABOVE FEED COST PER CWT. BEEF PROD.		\$ 2.92	\$ 6.72	\$-2.34
RETURNS FOR \$100 OF FEED	\$	\$148	\$213	\$82
Price received per cwt. beef sold	\$	\$ 7.99	\$ 9.26	\$ 6.05
No. of animal units		36.9	28.0	17.7
Pounds of beef produced		18991	15685	6740

*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 Sheep, 1940

Items	Your farm	Average of all farms	Farms highest in returns above feed	Farms lowest in returns above feed
Farm flock: No. of farms:		56	11	11
Feeds per head,* lbs.:				
Concentrates		75	28	105
Legume hay		208	126	277
Other hay		60	78	74
Fodder and stover		46	76	46
Silage		142	181	138
Feed cost per head:				
Concentrates	\$	\$.64	\$.24	\$.86
Roughages		1.08	.87	1.33
Pasture		.88	1.00	.88
TOTAL FEED COSTS	\$	\$2.60	\$2.11	\$3.07
Value of produce per head:				
Wool	\$	\$2.09	\$2.01	\$2.45
Net increase in value of sheep		3.78	6.36	.35
TOTAL VALUE PRODUCED	\$	\$5.87	\$8.37	\$2.80
RETURNS ABOVE FEED COST PER HEAD	\$	\$3.27	\$6.26	\$-.27
RETURNS FOR \$100 OF FEED	\$	\$246	\$406	\$92
Value per lamb sold	\$	\$7.14	\$7.46	\$7.68
Price per lb. wool sold (cts.)		28.7	29.1	27.5
Pounds of wool per sheep sheared		9.0	9.1	9.9
Number of ewes kept for lambing		36.0	26.0	44.0
% lamb crop		110.4	122.4	102.4
% death loss		19.0	16.0	32.0
No. of head of sheep* (Farm flock)		54.8	47.1	53.1
Feeder sheep: no. of farms:		20	10	10
Feeds per cwt. sheep produced, lbs.:				
Concentrates		622	455	788
Legume hay		326	331	322
Other hay		72	52	91
Fodder and stover		62	80	45
Silage		99	152	47
Feed cost per head:				
Concentrates	\$	\$4.76	\$3.60	\$5.91
Roughages		1.55	1.61	1.49
Pasture		.85	.57	1.13
TOTAL FEED COSTS	\$	\$7.16	\$5.78	\$8.53
Net increase in value of sheep	\$	\$9.29	\$10.68	\$7.90
RETURNS ABOVE FEED COST PER CWT. PRODUCED	\$	\$2.13	\$4.90	\$-.63
RETURNS FOR \$100 OF FEED**	\$	\$150	\$198	\$101
Price per cwt. sheep sold	\$	\$8.74	\$8.94	\$8.48
% death loss		3.5	2.2	4.5
% of T.D.N. in ration that is protein		13.0	13.1	12.8
Pounds of sheep produced		6490	7068	5913

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

** Five flocks were omitted from this statement because of very high death losses. The average returns for \$100 of feed for the 25 flocks was \$114.

Feed Costs and Returns From Hogs and Chickens, 1940

Items	Your farm	Average of all farms	Farms highest in returns above feed	Farms lowest in returns above feed
Hogs: no. of farms:		160	32	32
Feed per cwt. hogs produced, lbs.:				
Corn		318	238	461
Small grain		156	122	218
Com. feeds - under 25% protein		3	4	2
Com. feeds - over 25% protein		11	11	11
Total concentrates		488	375	692
Skimmilk and buttermilk		142	122	219
Feed cost per cwt. hogs produced:				
Concentrates	\$	\$3.88	\$2.97	\$5.43
Skimmilk and buttermilk		.21	.18	.33
Pasture		.20	.18	.22
TOTAL FEED COSTS	\$	\$4.29	\$3.33	\$5.98
Net incr. in value per cwt. hogs. prod. \$		\$5.52	\$6.01	\$5.08
RET. ABOVE FEED COST PER CWT. HOGS PROD. \$		\$1.23	\$2.68	\$-.90
RETURNS FOR \$100 OF FEED	\$	\$137	\$183	\$89
Price received per cwt. hogs sold	\$	\$5.15	\$5.50	\$4.98
Total no. of litters raised		14.0	15.9	11.5
No. of pigs weaned per litter		6.2	6.9	5.3
% of two-litter systems		28.0	31.0	19.0
Pounds of hogs produced		21907	26012	14887
Chickens: no. of farms:		147	29	29
Feed per hen, lbs.:				
Concentrates		101	126	90
Skimmilk and buttermilk		25	22	17
Feed cost per hen:				
Concentrates	\$	\$1.07	\$1.38	\$.92
Skimmilk and buttermilk		.04	.03	.03
TOTAL FEED COST	\$	\$1.11	\$1.41	\$.95
Value of produce per hen:				
Eggs sold and used in house	\$	\$1.42	\$1.78	\$1.04
Net increase in value of chickens		.65	1.58	0
TOTAL VALUE PRODUCED	\$	\$2.07	\$3.36	\$1.04
RETURNS ABOVE FEED COST PER HEN	\$	\$.96	\$1.95	\$.09
RETURNS FOR \$100 OF FEED	\$	\$198	\$266	\$110
Price rec'd per doz. eggs sold (cts.)		15.0	16.3	14.3
Eggs laid per hen		113	132	88
No. of hens		179	164	195
% of hens that are pullets		75	85	63

Feed Costs and Returns for Turkeys, 1940

Items	Your farm	Average of 12 farms	6 farms highest returns above feed	6 farms lowest in returns above feed
Feed per cwt. turkeys produced, lbs.:				
Grain	_____	334	337	330
Com. feeds - under 25% protein	_____	21	32	10
Com. feeds - over 25% protein	_____	188	127	250
Total concentrates	_____	543	496	590
Skim milk	_____	36	61	10
Feed cost per cwt. turkeys produced	\$ _____	\$7.27	\$6.17	\$8.38
Value of produce per cwt. turkeys prod.				
Eggs and poults	\$ _____	1.65	2.78	.51
Net increases in turkeys	_____	11.36	11.69	11.04
TOTAL VALUE PRODUCED	\$ _____	13.01	14.47	11.55
RETURNS ABOVE FEED COST PER CWT. TURKEYS PRODUCED	\$ _____	5.74	8.30	3.17
RETURNS FOR \$100 FEED	\$ _____	\$214	\$285	\$143
Price rec'd per lb. turkey sold (cts.)	_____	14.4	14.6	14.2
Pounds of turkeys produced	_____	25,124	22,248	28,000

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

Items	Your farm	Average of 163 farms*	32 most profit- able farms*	32 least profit- able farms*
Feed per horse, ** lbs.:				
Grain	_____	2093	2308	2155
Hay	_____	3459	3372	4022
Fodder and stover	_____	183	200	250
Feed costs per horse:				
Grain	\$ _____	\$16.74	\$19.02	\$16.31
Roughage	_____	9.35	9.89	10.54
Pasture	_____	3.65	3.98	3.33
TOTAL FEED COSTS	\$ _____	29.74	32.89	30.18
Number of work horses	_____	4.2	4.6	4.6
Number of colts	_____	1.0	.9	1.1
Crop acres per farm	_____	213.1	308.9	171.4
Tractor and horse exp. per crop acre	\$ _____	\$1.88	\$1.65	\$2.32
Crop and general mach. exp. per crop acres	\$ _____	1.11	1.02	1.27

* Two farms did not have horses.

**Two colts equal one horse.

Farm Produce Used in House and House Rental, 1940

Items	Quantities				Value			
	Your farm	Average 165 farms	33 most profit-able farms	33 least profit-able farms	Your farm	Average 165 farms	33 most profit-able farms	33 least profit-able farms
Wholemilk		1083 qts.	1336	1285	\$	\$29.23	\$34.66	\$35.32
Skimmilk		492 qts.	627	213		1.58	2.02	.72
Cream		307 pts.	341	306		27.92	29.55	27.78
Farm made butter		15 lbs.	18	13		4.43	5.30	3.73
Eggs		172 doz.	199	151		25.35	30.32	22.11
Cattle		408 lbs.	489	246		30.84	39.44	18.36
Hogs		585 lbs.	723	501		30.49	38.15	25.87
Sheep		13 lbs.	5	42		.86	.40	2.33
Poultry		134 lbs.	138	134		14.81	16.30	14.82
Potatoes		18 bu.	21	17		10.93	12.91	10.25
Vegetables & fruits						39.11	43.14	36.13
Farm fuel						28.29	32.64	27.39
Rental vl. of house						239.20	270.46	250.06
Misc. (wool, honey, etc.)						.05	0	.26
Total						483.09	555.29	475.13

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

Items	Your farm	Average of 131 farms	26 most profit-able farms	26 least profit-able farms
Number of persons - family		4.6	5.4	4.2
Number of persons, (Family adult equivalent (Other*		3.5	4.3	3.2
		.9	1.0	.8
Food and meals bought	\$	\$330	\$390	\$298
Operating and supplies		130	173	112
Clothing and clothing materials		176	236	147
Personal care, personal spending		63	82	57
Furnishings and equipment		117	144	95
Education, recreation and development		102	168	65
Medical care and health insurance		98	155	71
Church, welfare, and gifts		109	229	73
Personal share of auto expense		104	129	107
Household share of elect. & gas eng. exp.		34	34	32
H.H. & pers. shr. of new auto, gas eng. & motors bot		110	195	84
Life insurance and other investments		248	486	112
Total household and personal cash expenses		1,621	2,421	1,253
Food furnished by the farm		216	261	203
Fuel furnished by the farm		28	34	26
House rental		245	285	245
Total household and personal expenses		2,110	3,001	1,727

*Hired help or others boarded.

Miscellaneous Information - Averaged by Counties - 1940

Item	Brown	Cotton-wood	Fari-bault	Jackson	Lincoln	Lyon
Operator's labor earnings	\$2008	\$2120	\$1775	\$2148	\$2341	\$1550
Total farm sales	8368	8548	9480	7153	6953	6909
Total farm purchases	6052	6718	7865	4417	3766	4781
Average farm inventory	\$29924	\$28924	\$32838	\$28449	\$28870	\$31836
Total acres in small grain	83.3	112.3	85.5	92.6	155.7	132.8
Total acres in cultivated crops	55.1	63.3	71.5	61.6	70.2	83.5
Total acres in tillable hay	21.5	25.0	28.0	24.2	21.3	27.1
Total acres in tillable pasture	16.7	23.0	23.4	14.8	25.0	23.0
Total acres in farm	223.6	254.3	242.9	228.5	383.4	334.4
% land tillable	77.8	88.3	84.9	84.1	75.8	84.0
Animal units of productive livestock	54.1	45.2	57.4	48.2	50.3	48.8
% of prod. animal units that are dairy						
and dual purpose cows	23.6	21.6	18.1	20.4	25.9	29.2
other dairy and dual purpose cattle	12.6	15.2	11.4	13.0	13.8	14.3
beef cattle - breeding herd	1.2	.9	13.9	13.5	24.7	8.7
beef cattle - feeder	26.6	31.8	17.0	20.2	3.0	10.7
sheep - farm flock	3.0	2.3	8.8	4.2	8.9	8.0
sheep - feeders	0	1.7	5.3	3.5	0	2.6
hogs	22.1	15.8	21.6	21.0	18.9	20.7
turkeys	6.8	3.9	.5	1.2	0	0
hens	4.1	6.8	3.4	3.0	4.7	5.9
		Martin	Murray	Nobles	Red-wood	Watson
Operator's labor earnings		\$2127	\$2111	\$2607	\$2314	\$1785
Total farm sales		9464	6849	10699	10083	5655
Total farm purchase		5333	4137	8320	7398	4150
Average farm inventory		\$35761	\$26269	\$36268	\$39356	\$30211
Total acres in small grain		75.4	115.5	110.8	168.5	78.0
Total acres in cultivated crops		85.5	65.0	80.9	88.8	59.3
Total acres in tillable hay		19.0	26.0	32.9	36.9	23.5
Total acres in tillable pasture		27.3	22.6	27.9	27.3	28.2
Total acres in farm		230.0	266.4	285.9	399.3	240.2
% land tillable		90.2	86.0	88.8	86.1	80.1
Animal units of productive livestock		54.4	43.7	70.3	79.2	39.1
% of prod. animal units that are dairy						
and dual purpose cows		18.6	22.6	20.0	23.0	21.4
other dairy and dual purpose cattle		12.7	14.1	13.3	12.2	10.3
beef cattle - breeding herd		13.8	12.9	9.8	8.4	20.5
beef cattle - feeders		17.3	20.6	15.3	24.5	1.6
sheep - farm flock		5.6	2.7	2.0	5.4	5.7
sheep - feeders		.1	5.0	9.1	1.7	5.9
hogs		27.8	17.7	21.1	21.2	23.7
turkeys		.3	0	6.1	0	6.6
hens		3.8	4.4	3.4	3.6	4.2

Miscellaneous Information (Continued)

Item	Brown	Cotton- wood	Fari- bault	Jackson	Lincoln	Lyon
Crop yields - % of average	110	101	105	107	89	89
% till. land in high ret. crops	36.4	37.6	40.6	36.4	31.3	32.5
Index of ret. from livestock	106	95	98	100	105	88
Amount of livestock per 100 A.	26.1	22.0	26.3	23.0	15.6	14.5
Work units	566	489	529	504	665	561
Work units per worker	249	247	280	235	266	244
Expenses per work unit	\$2.29	\$2.35	\$2.26	\$2.05	\$1.87	\$2.15
Yield per acre, flax, bu.	14.8	14.8	13.6	15.6	11.9	9.7
Yield per acre, barley, bu.	41.4	45.8	47.4	47.5	33.0	34.6
Yield per acre, oats, bu.	69.1	68.6	59.5	61.7	57.4	54.0
Yield per acre, corn, grain, bu.	49.1	47.5	48.9	50.0	41.9	43.4
Yield per acre, corn silage, tons	10.2	9.3	8.3	10.0	6.5	6.8
Yield per acre, alfalfa hay, tons	2.4	1.7	2.5	2.1	1.4	1.8

	Martin	Murray	Nobles	Redwood	Watowan
Crop yields - % of average	109	82	101	91	110
% till. land in high ret. crops	37.8	37.2	34.8	33.1	34.1
Index of ret. from livestock	105	111	105	93	98
Amount of livestock per 100 A.	25.4	19.8	25.9	19.2	18.8
Work units	592	561	642	667	479
Work units per worker	264	306	280	250	266
Expenses per work unit	\$2.00	\$1.93	\$1.89	\$2.76	\$2.06
Yield per acre, flax, bu.	13.6	10.1	17.7	12.8	13.0
Yield per acre, barley, bu.	55.0	39.2	49.2	37.6	37.4
Yield per acre, oats, bu.	66.8	57.2	53.4	52.6	68.6
Yield per acre, corn, grain, bu.	51.2	35.4	44.0	44.9	49.9
Yield per acre, corn silage, tons	9.5	7.4	8.6	7.7	6.9
Yield per acre, alfalfa hay, tons	2.2	1.5	1.7	2.0	2.4