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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
Dakota, Dodge, Freeborn, Goodhue, Le Sueur, Mower, Nicollet, Olmsted,
Rice, Scott, Steele, Wabasha, Waseca, and Winona Counties
Cooperating

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Annual Report
of the
Southeastern Minnesota
Farm Management Service
1942

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Cooperator: _____

Mimeographed Report No. 136
Division of Agricultural Economics
University Farm
St. Paul, Minnesota
April 1943

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Fifteenth Annual Report of the Farm Management Service of Dakota, Dodge, Freeborn, Goodhue, Le Sueur, Mower, Nicollet, Olmsted, Rice, Scott, Steele, Wabasha, Waseca and Winona Counties for the Year 1942.

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

INTRODUCTION

The Division of Agricultural Economics and the Division of Agricultural Extension of the University of Minnesota, the Bureau of Agricultural Economics of the United States Department of Agriculture, and the county extension services of Dodge, Freeborn, Goodhue, Rice, Steele and Waseca Counties organized late in 1927 the Farm Management Service Project, to operate in the above named counties, beginning January 1, 1928. Additional counties have since been added. This farm management service is offered to farmers who desire to keep farm records, and to have these records summarized and analyzed in connection with those of other farmers. Each farmer who cooperates in this service pays an annual fee which covers a part of the cost. The balance of the cost is defrayed by the University of Minnesota.

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

The Southeast Minnesota Farm Management Association was organized in 1939 by the farmers cooperating in the S. E. Farm Management Service. This association now represents its membership as an additional cooperating agency to determine policies and especially to maintain the field organization and membership. Officers for 1942 were:

President, Hiram Johnson, Ellendale, Steele County;
Vice-President, Arthur Olin, Millville, Wabasha County;
Secretary-Treasurer, C. H. Kunde, Goodhue, Goodhue County;

The board of directors included these officers and also the following: Sarah Howland, Dakota County; Glen Kellar, Dodge County; Ross Ferguson, Freeborn County; Paul Sundeman, Le Sueur County; H. B. Hillier, Mower County; Franklin Till, Olmsted County; Arthur Behnscock, Scott County; C. L. Sauffeur, Waseca County and Joe Ries, Winona County.

In addition to records kept by members of the S. E. Minn. Farm Mgt. Service, 27 records from farmers in a 3-year detailed accounting study in Nicollet County are included. Some of these farmers were in the S. E. Service in 1940 and earlier years and will probably return to it at the end of the three-year period. Since these farms are in the same area and of the same type as the

Note: Assistance in the preparation of this material was furnished by workers supplied on N. Y. A. Student Work Project No. 493-70. Sponsor: University of Minnesota.

others and since the same type of records are available they have been combined with those of the regular service to increase the size of the sample and make the comparison more significant. These records have been kept under the general direction of Mr. S. A. Engene of the Dept. of Agr. Econ. and serviced by Mr. F. E. Wetherill.

The following tabulation shows by counties the number of records submitted in 1942:

Dakota	7	Mower	10	Steele	17
Dodge	12	Nicollet	32	Wabasha	8
Freeborn	20	Olmsted	16	Waseca	21
Goodhue	17	Rice	8	Winona	19
LeSueur	6	Scott	15	Total	208

The table on page 4 and succeeding pages show 201 farms. Seven farms have been omitted from all 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*

Most of the farms are livestock farms on which dairy cattle are the principal source of income. Although some milk and cream are retained in the cities, and some milk is sold for shipment to the Twin Cities, cream for manufacture into butter is generally the principal dairy product sold. This is marketed through farmer-owned cooperative creameries specializing in the manufacture of high quality butter. The skim milk is retained on the farm and fed to hogs and poultry. These two classes of livestock are also an important source of income.

The principal crops grown are corn, oats, barley and hay. These crops are raised primarily as livestock feed, although a seasonal surplus may be sold. Wheat, sweet corn, canning peas, sugar beets, flax and seed crops are grown to a limited extent as cash crops.

WEATHER, SOIL AND TOPOGRAPHY

The year was somewhat warmer and considerably wetter than usual. No unusually high or low temperatures occurred. Weather conditions were favorable for the early spring farm activities. However, cool wet weather in May retarded growth of vegetation, and the planting of corn and other late crops was seriously delayed. Conditions were more favorable in June for field work. Small grains and grasses did well in June and July, although it was too cool for corn and soybeans. Heavy rains delayed haying, harvesting, and threshing, and caused considerable damage to grain in shocks and to hay. Heavy rains, heavy snows and freezing temperatures in late September damaged crops considerably, especially corn and soybeans.

There is some variation in soil conditions and topography among these counties. The soil varies from sandy loam to a rich black clay loam; the latter type predominates in this area. Some of the farms are level, all tillable and well drained, but most of them are gently rolling with some land too rough or too wet to cultivate. Goodhue, Wabasha and Winona Counties

*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.

have more rolling land than the other counties. Much of the level land is tilled to make possible its cultivation in wet years. However, on a number of farms, there is considerable land which is poorly drained. In much of Goodhue, Dodge, Mower, Olmsted and Winona Counties and in the eastern part of Dakota, Rice and Steele Counties, the soil is lime deficient and applications of lime are necessary in order to grow alfalfa and sweet clover. In the remainder of the area it is not necessary, as a rule, to apply lime in order to grow these two crops.

Table 1 Monthly and Annual Precipitation

	Rochester		Albert Lea		Faribault		St. Peter	
	Precip- itation	Depart- ure from normal	Precip- itation	Depart- ure from normal	Precip- itation	Depart- ure from normal	Precip- itation	Depart- ure from normal
	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches
January	0.13	-0.97	0.08	-0.73	0.15	-0.41	0.03	-0.85
February	0.22	-0.60	0.34	-0.57	0.33	-0.33	0.33	-0.37
March	3.02	+1.70	1.42	+0.19	1.55	+0.52	2.52	+1.43
April	1.78	-0.89	2.86	+0.46	2.09	+0.21	2.13	+0.16
May	6.06	+2.08	4.84	+0.60	5.13	+1.91	2.94	-0.47
June	6.26	+1.67	4.36	-0.22	2.54	-1.83	4.33	-0.38
July	5.46	+2.68	6.91	+3.43	3.24	-0.11	3.03	-0.37
August	7.18	+3.88	3.94	+0.29	5.88	+2.47	1.85	-1.61
September	7.50	+4.53	3.98	+0.01	4.85	+1.40	8.41	+4.77
October	1.68	-0.42	1.21	-0.92	0.95	-1.13	0.20	-1.99
November	1.02	-0.59	0.61	-0.86	0.54	-0.60	1.01	-0.28
December	1.37	+0.45	0.67	-0.28	1.32	+0.69	1.16	+0.45
1942 Total	41.68	+13.52	31.22	+1.40	28.57	+2.79	27.94	+0.49
1941 Total	29.80	+1.64	36.35	+6.53	23.08	-2.70	29.95	+2.50
1940 Total	28.87	+0.71	27.81	-2.01	23.34	-2.44	38.39	+10.94
1939 Total	21.92	-6.24	19.74	-10.08	16.28	-9.50	22.49	-4.96
1938 Total	43.69	+15.53	38.04	+8.22	27.14	+1.36	30.81	+3.36

RECORDS KEPT

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

The cooperators were assisted and supervised in keeping their records by the field agent, Glen Myers, who visited each farm 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.

Table 2: Summary of Farm Inventories (Beginning of Year), 1942

Items	Your farm	Average of 201 farms	40 most profitable farms	40 least profitable farms
Size of farm (acres)	_____	230	296	207
Size of business (work units)*	_____	656	925	561
Horses	\$ _____	\$380	\$433	\$385
Productive livestock (total)	_____	3770	5760	2877
Dairy and dual purpose cows	_____	1263	1428	1105
Other dairy & dual purpose cattle	_____	655	771	555
Beef cattle (including feeders)	_____	521	1369	260
Hogs	_____	925	1440	680
Sheep (including feeders)	_____	163	287	127
Poultry (including turkeys)	_____	243	465	150
Crop, seed, and feed	_____	2552	3764	2113
Mach. & equipment (total)	_____	3133	4374	2643
Power mach. (f. share)	_____	1181	1524	1032
Crop & gen. mach. (f. share)	_____	1421	2047	1223
Livestock equip. & supplies	_____	531	803	388
Buildings, fences, etc.	_____	6724	9059	5947
Land	_____	8780	11602	7664
Total farm capital	_____	25339	34992	21629

*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	14.5	Small grain	acre	.8
Other dairy & dual-purpose cattle	) animal unit*	4.4	Soybeans for grain	"	1.0
Beef breeding herd		4.0	Sugar beets	"	3.0
Sheep - farm flock		2.0	Sweet corn	"	2.5
Hens	100 hens	28.0	Corn, husked	"	1.7
Feeder cattle	) 100 lbs. produced	.4	Corn, hogged	"	1.1
Feeder sheep		.5	Corn, shredded	"	2.8
Hogs	) produced	.3	Corn silage	"	2.1
Turkeys		.7	Corn fodder	"	1.5
Canning peas	acre	2.0	Alfalfa hay	"	1.0
			Soybean hay	"	1.4
			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.

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

	Your farm	Average of 201 farms	40 most profitable farms	40 least profitable farms
Horses	\$ _____	\$ 370	\$ 418	\$ 351
Productive livestock (total)	_____	4559	7393	3186
Dairy & dual purpose cows	_____	1317	1492	1101
Other dairy & dual purpose cattle	_____	748	927	608
Beef cattle (including feeders)	_____	585	1583	267
Hogs	_____	1416	2367	883
Sheep (including feeders)	_____	193	431	148
Poultry (including turkeys)	_____	300	593	179
Crop, seeds, and feed	_____	3013	4822	2075
Mach. & equipment (total)	_____	3367	4691	2842
Power mach. (f. share)	_____	1211	1621	1043
Crop & gen. mach.	_____	1539	2130	1349
Livestock equipment & supplies	_____	617	940	450
Buildings, fences, etc.	_____	6748	9031	5944
Land	_____	8780	11602	7664
Total farm capital	_____	26837	37957	22062

Table 4, Summary of Amount of Livestock

Items	Your farm	Average of 201 farms	40 most profitable farms	40 least profitable farms
No. of horses	_____	3.9	4.4	3.7
No. of colts	_____	.9	1.0	.8
No. of dairy & dual purpose cows	_____	18.1	20.2	16.3
Head of other dairy & dual purpose cattle	_____	18.0	21.4	16.2
Head of cattle in beef breeding herd	_____	4.0	6.9	2.5
Pounds of feeder cattle produced	_____	1612	6438	367
Litters of pigs	_____	15.7	20.8	12.5
Pounds of hogs produced	_____	24383	39479	16236
Head of sheep (2 lambs = 1 head)	_____	16.2	23.2	17.5
No. of hens	_____	219	274	168
Total no. of prod. lvstck animal units	_____	49.4	74.7	39.2
% of total that are:				
Dairy and dual purpose cows	_____	39.3	30.4	43.3
Other dairy and dual purpose cattle	_____	20.6	16.9	22.6
In beef breeding herd	_____	3.8	4.8	2.7
Feeder cattle	_____	3.0	8.9	1.0
Native sheep	_____	4.2	4.3	5.2
Feeder sheep	_____	.4	1.3	0
Hogs	_____	21.5	21.6	20.1
Turkeys	_____	2.0	7.3	0
Hens	_____	5.2	4.5	5.1
Number of farms with tractors		195	40	39

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

Items	Your farm	Average of 201 farms	40 most profitable farms	40 least profitable farms
FARM EXPENSES				
Horses bought	\$ 34	\$ 34	\$ 28	\$ 40
Dairy and dual-purpose cows bought	99	99	148	28
Other dairy & dual-purpose cattle	103	103	103	94
Beef cattle bought (including fdrs.)	242	242	860	75
Hogs bought	203	203	364	96
Sheep bought (including feeders)	153	153	167	27
Poultry bought (including turkeys)	132	132	276	82
Misc. crop expenses	284	284	455	228
Feed bought	1416	1416	2706	769
Power mach. (farm share) (new)	223	223	356	181
Power mach. (farm share) (upkeep)	473	473	663	423
Custom work hired	164	164	215	137
Crop and general mach. (new)	301	301	340	302
Crop and general mach. (upkeep)	100	100	128	103
Livestock equipment (new)	163	163	273	122
Livestock equipment (upkeep)	66	66	81	61
Misc. livestock expense	123	123	206	82
Buildings and fencing (new)	245	245	278	250
Buildings and fencing (upkeep)	226	226	250	168
Hired labor	571	571	982	450
Taxes	276	276	370	237
Insurance	37	37	58	30
General farm	46	46	51	43
(1) Total farm purchases	5580	5580	9358	4028
(2) Decrease in farm capital	-	-	-	-
(3) Board furnished hired labor	177	177	274	156
(4) Interest on farm capital	1304	1304	1824	1092
(5) Unpaid family labor	304	304	336	222
(6) Total farm expenses (Sum of (1) to (5))	7365	7365	11792	5498
FARM RECEIPTS				
Horses	34	34	35	44
Dairy and dual-purpose cows	460	460	572	361
Dairy products	2078	2078	2473	1653
Other dairy and dual-purpose cattle	415	415	444	332
Beef cattle (including feeders)	639	639	2199	181
Hogs	3104	3104	4707	2079
Sheep and wool (including feeders)	177	177	291	137
Poultry (including turkeys)	722	722	2333	171
Eggs	765	765	1048	474
Corn	111	111	173	68
Small grain	312	312	422	258
Other crops	457	457	670	356
Power machinery sold	78	78	99	82
Crop and gen. mach. sold	49	49	68	46
Misc.	142	142	172	73
Income from work off the farm	119	119	124	108
Agricultural adjustment payments	343	343	495	263
(7) Total farm sales	10005	10005	16325	6686
(8) Increase in farm capital	1498	1498	2965	433
(9) Family living from the farm	576	576	700	506
(10) Total farm receipts (7)+(8)+(9)	12079	12079	19990	7625
(6) Total farm expenses	7365	7365	11792	5498
(11) Operator's labor earnings (10)-(6)	4714	4714	8198	2127

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

Items	Four farm	Average of 201 farms	40 most profitable farms	40 least profitable farms
EXPENSES AND NET DECREASES				
Total power	\$	\$ 821	\$1120	\$ 734
Horses		191	222	193
Tractor		266	388	246
Truck		88	184	45
Auto (farm share)		127	139	122
Gas engine (farm share)		6	4	6
Elec. plant or current (farm share)		60	71	53
Hired power		83	112	69
Crop and general machinery		248	339	250
Livestock equipment		126	180	111
Buildings, fencing and tiling		334	416	324
Misc. productive livestock expense		114	201	78
Labor		1093	1647	865
Real estate taxes		235	314	206
Personal property tax		41	56	31
Insurance		37	58	30
General farm		45	51	43
Interest on farm capital		1304	1824	1092
(1) Total expenses & net decreases		4399	6206	3764
RETURNS AND NET INCREASES				
All productive livestock		8833	14435	5727
Dairy and dual purpose cows		2538	3063	2004
Other dairy & dual purpose cattle		743	940	568
Beef breeding herd		147	248	39
Feeder cattle		267	1087	56
Hogs		3494	5505	2276
Sheep - farm flock		137	203	132
Sheep - feeders		17	64	0
Turkeys		498	1936	0
Chickens		992	1389	652
Crops, seed and feed		-338	-857	-312
Income from work off the farm		319	124	108
Agricultural conservation payments		343	495	263
Miscellaneous		156	207	105
(2) Total returns & net increases		9113	14404	5891
(1) Total expenses & net decreases		4399	6206	3764
(3) Oper. labor earnings (2) - (1)		4714	8198	2127

(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 operator's labor earnings varied widely among the farmers included in this study. The average labor earnings of those farmers ranking in the upper 20 per cent in the range according to earnings was \$8198 and of those in the lower 20 per cent was \$2127. This is a range of \$6071 between the average earnings of these two groups. Some of the causes for these differences in earnings may be beyond the control of the farmer. However, all of these farmers could make some changes in their farming operations which would increase earnings. A farmer can secure some ideas as to changes that could profitably be made on his farm by studying the facts about his business as presented in this report and comparing his accomplishments with other farmers following the same general type of farming. The more important management factors affecting earnings and their relationships with earnings are presented in the following tables. These factors vary from year to year in their relative influence on earnings. Because of the great importance of size of business in 1942 some of these factors do not show a significant relationship with earnings.

Table 7. Relation of Crop Yields to Farm Earnings

Per cent crop yields were of the average for all 201 farms		No. of farms	Average operator's labor earnings
Group	Average		
Below 85	72	32	\$3288
85-114	99	127	4690
115 and above	125	42	5874

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 8. 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 35.0	31.4	38	\$4645
35.0 - 50.9	43.0	129	4644
51.0 and above	58.7	34	5057

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

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

Table 9. Relation of Returns From Productive Livestock to Farm Earnings

Group	Index of returns for \$100 feed fed to productive livestock* Average	No. of farms	Average operator's labor earnings
Below 92	81	60	\$4412
92-109	99	85	4840
110 and above	122	56	4847

*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 some 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 10. Relation of Amount of Productive Livestock to Farm Earnings

Group	Productive livestock units per 100 acres* Average	No. of farms	Average operator's labor earnings
Below 21.0	17.1	60	\$4474
21.0-28.9	24.7	91	4348
29.0 & above	35.9	50	5670

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

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

Table 11. Relation of Size of Business (Work units) to Farm Earnings

Group	Days of productive work Average	No. of farms	Average operator's labor earnings
Below 500	411	37	\$2889
500-799	628	107	4432
800 and above	990	57	6430

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

Table 12. Relation of Amount of Work Accomplished per Worker to Farm Earnings

Group	Work units	No. of farms	Average operator's labor earnings
	per worker Average		
Below 275	238	61	\$3748
275-349	308	80	4904
350 and above	405	60	5415

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

Group	Expense per work unit	No. of farms	Average operator's labor earnings
	Average		
\$2.75 and above	\$3.29	38	\$4308
\$1.70-2.74	2.19	124	4712
Below \$1.70	1.36	39	5119

*Includes building, fencing, all crop machinery and livestock equipment, power, 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 average. This is well illustrated in Table 14.

Table 14. Relation of Operator's Labor Earnings to the Number of Factors in Which the Farmer is Above Average

No. of factors in which farmer 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
None	7	_____	XXXXXXXXXXXXXX	\$2329
One	15	_____	XXXXXXXXXXXXXXXXXX	3089
Two	39	_____	XXXXXXXXXXXXXXXXXXXXXX	3697
Three	44	_____	XXXXXXXXXXXXXXXXXXXXXXXXXX	4482
Four	57	_____	XXXXXXXXXXXXXXXXXXXXXXXXXX	5004
Five or six	39	_____	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	6625

*No farmers were above average in all seven factors.

The array in Table 14 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.

Table 15, Measures of Farm Organization and Management Efficiency, 1942

Measures used in chart on page 13	Your farm	Average of 201 farms	40 most profitable farms	40 least profitable farms
Operator's Labor Earnings	\$ _____	\$4714	\$8198	\$2127
(1) Crop yields*	_____	100	107	88
(2) % of tillable land in high return crops**	_____	43.5	44.4	41.9
(3) Ret. for \$100 feed to prod. livestock***	_____	100	102	96
(4) Prod. livestock units per 100 acres****	_____	25.2	28.7	23.2
(5) Size of business - work units	_____	690	925	561
(6) Work units per worker	_____	316	389	293
(7) Pow., mach., equip., & bldg. exp. per work unit \$	_____	\$2.23	\$2.22	\$2.55

Measures and items related to some of the above measures:

(3) Index of return for \$100 feed from -				
Dairy cattle	_____	100	97	100
Dual purpose cattle	_____	100	79	100
Beef breeding herd	_____	100	102	78
Feeder cattle	_____	100	112	90
Hogs	_____	100	107	89
Native sheep	_____	100	108	99
Feeder sheep	_____	100	-	-
Turkeys	_____	100	96	-
Chickens	_____	100	103	88
(5) Work units on crops	_____	182	249	150
Work units on productive livestock	_____	475	643	384
Other work units	_____	33	33	27
(6) Total number of workers	_____	2.2	2.8	2.0
Number of family workers	_____	1.4	1.5	1.3
Number of hired workers	_____	.8	1.3	.7
(7) Power expense per work unit	\$ _____	\$1.20	\$1.22	\$1.34
Crop machinery expense per work unit	_____	.36	.36	.44
Livestock equip. expense per work unit	_____	.18	.20	.20
Bldgs. and fencing exp. per work unit	_____	.49	.44	.57

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

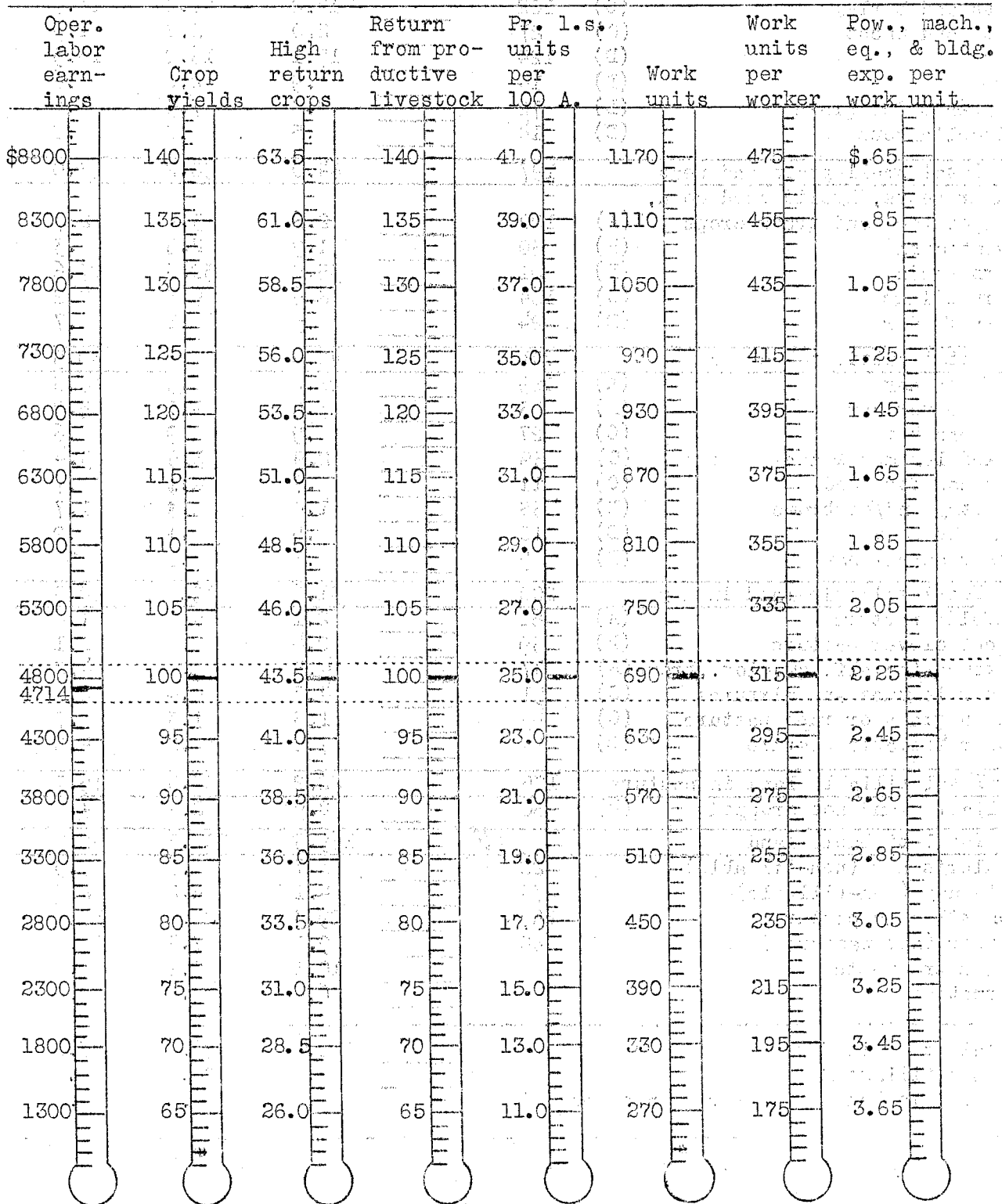


Table 16, Distribution of Acres in Farm, 1942

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 201 farms	40 most profitable farms	40 least profitable farms
Canning peas (A)	21		1.5	3.3	0
Flax (B)	89		7.0	9.3	3.7
Barley (B)	115		11.6	17.5	11.7
Winter wheat (B)	81		4.9	7.8	3.6
Spring wheat (C)	25		.9	1.0	.7
Oats and barley (C)	102		14.8	22.8	11.7
Oats and wheat (C)	27		2.0	2.2	1.9
Oats (D)	124		15.1	16.2	14.5
Rye (D)	14		.9	2.0	.6
Soybeans for grain (D)	72		4.8	7.3	4.4
Miscellaneous (D)	14		.5	.8	.2
Total small grain and peas	197		64.0	90.2	53.0
Sugar beets, hybrid seed corn, potatoes and truck crops (A)	100		2.6	3.2	2.7
Sweet corn (B)	30		1.9	2.6	.3
Corn grain (B)	201		35.0	52.5	27.6
Corn silage (C)	164		8.6	9.5	8.2
Corn fodder (D)	24		.5	.1	.7
Total cultivated crops	201		48.6	67.9	39.5
Alfalfa hay (A)	189		21.0	27.5	17.8
Red clover hay (B)	53		3.9	4.7	5.9
Soybean hay (C)	27		.9	.9	.6
Mixed legumes & non-legumes (C)	39		2.9	3.5	3.4
Legumes for seed (C)	11		.7	1.1	.7
Timothy and/or brome (D)	38		1.4	1.3	1.7
Timothy seed (D)	10		.5	.1	.2
Other annual hay (D)	9		.3	.6	0
Total tillable land in hay	200		31.6	39.7	30.3
Alfalfa pasture (A)	61		2.1	4.1	1.0
Sweet clover pasture (B)	39		2.4	4.9	2.1
Mixture inc.alf.,sw.clov.,brome (B)	47		4.3	4.4	4.2
Other legumes and mixtures (C)	51		4.7	6.4	2.8
Sudan grass or rape pasture (C)	43		1.5	1.3	.7
Other tillable pasture (D)	87		7.2	11.2	4.9
Total tillable land in pasture	185		22.2	32.3	15.7
Tillable land not cropped (D)	60		2.9	2.4	4.0
Total tillable land			169.3	232.5	142.5
Phalaris hay (non-tillable)	22		1.7	.6	3.9
Wild hay (non-tillable)	73		4.1	5.2	2.5
Non-tillable pasture	168		29.3	29.9	32.6
Timber (not pastured)	88		9.0	7.3	11.8
Roads and waste			10.1	12.1	7.9
Farmstead			6.8	8.5	6.0
Total acres in farm			230.3	296.1	207.2
% land tillage			74.4	80.3	70.0
% tillable land in high return crops			43.5	44.4	41.9

Table 17, Crop Yields Per Acre, 1942

Crop	Your farm	Average 201 farms	40 most profitable farms	40 least profitable farms
Canning peas, value above seed cost\$		\$31.92	\$28.50	-
Flax, bu.		10.6	10.7	10.7
Barley, bu.		23.1	30.7	24.6
Winter wheat, bu.		25.3	24.1	24.4
Spring wheat, bu.		20.7	22.4	19.7
Oats and barley, bu.		44.8	46.6	40.4
Oats and wheat, bu.		45.2	47.9	41.6
Oats, bu.		49.3	53.1	43.9
Rye, bu.		15.4	16.3	18.6
Soybeans for grain, bu.		9.9	9.0	9.3
<hr/>				
Sweet corn, tons		3.6	3.7	-
Corn, grain, bu.		61.2	66.3	52.4
Corn and cane silage, tons		9.2	10.4	8.1
Corn and cane fodder, tons		2.6	-	3.2
<hr/>				
Alfalfa hay, tons		2.7	2.8	2.4
Red clover hay, tons		2.1	2.2	1.9
Soybean hay, tons		1.4	1.5	1.3
Mixed legume & non-legume hay, tons		1.6	1.8	1.4
Legumes for seed, lbs.		130.1	-	-
Timothy and/or brome hay, tons		1.5	2.5	1.4
Timothy seed, lbs.		202.9	-	-
Other annual hay, tons		1.4	1.0	-
Phalaris hay or non-tillable land, tons		1.4	1.6	2.3
Wild hay, tons		.9	.9	.8

Table 18 Factors of Cost and Returns From Dairy Cows, 1942

	Your farm	Average of 174 farms	35 farms highest in butterfat per cow	35 farms lowest in butterfat per cow
Pounds of butterfat per cow		253	327	184
Feeds per cow, lbs.:				
Corn		904	1128	656
Small grain		1027	1307	838
Com. feeds - under 25% protein		84	122	50
Com. feeds - over 25% protein		111	182	59
Legume hay		4068	4534	3278
Other hay		287	226	433
Fodder and stover		195	81	283
Total concentrates		2126	2739	1603
Total dry roughage		4550	4841	3994
Silage		5805	5218	6004
Total digestible nutrients*		4909	5468	4224
T. D. N. per lb. B. F.		19.9	16.8	23.1
% T. D. N. that is protein		14.4	15.1	13.6
Feed cost per cow:				
Concentrates	\$	\$28.28	\$37.15	\$21.16
Roughages		24.72	25.73	22.26
Pasture		5.29	5.02	5.30
TOTAL FEED COSTS		\$58.29	\$67.90	\$48.72
Value of produce per cow:				
B. F. Sales	\$	\$115.99	\$149.68	\$78.58
Dairy produce used in house		5.34	5.77	5.52
Milk to livestock		14.77	18.65	12.31
Net increases in value of cows		7.05	3.43	5.82
TOTAL VALUE PRODUCED		\$143.15	\$182.53	\$102.23
RETURNS ABOVE FEED COST PER COW	\$	\$84.86	\$114.63	\$53.51
RETURNS FOR \$100 OF FEED	\$	\$251.00	\$274.00	\$222.00
Price received per lb. B. F. sold				
As manufacturing cream (cents)		44.5	44.8	44.0
As mkt. mk. & cm. & mk. for cheese (cts.)		59.0	58.7	60.8
Feed cost per lb. B. F. (cents)		23.5	20.8	26.5
% fall freshening		58.2	56.7	55.0
Number of cows**		18.8	18.6	18.6

* 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.

Table 19, Feed Costs and Returns From Other Dairy Cattle, 1942

Items	Your farm	Average of 171 farms*	34 farms highest in butterfat per cow*	35 farms lowest in butterfat per cow
Feeds per head, lbs.:				
Concentrates	_____	477	627	438
Hay and fodder	_____	1781	1975	1520
Silage	_____	2127	1954	2204
Whole milk	_____	430	572	332
Skim milk	_____	985	1189	965
Feed cost per head:				
Concentrates	\$ _____	\$ 6.56	\$ 8.74	\$ 6.00
Roughages	_____	9.10	9.88	8.27
Milk	_____	9.80	12.75	7.86
Pasture	_____	1.92	1.69	1.97
TOTAL FEED COSTS	\$ _____	\$27.38	\$33.06	\$24.10
Net inc. in value of other dairy cattle	_____	\$42.92	\$53.09	\$35.79
RETURNS ABOVE FEED COST PER HEAD	\$ _____	\$15.54	\$20.03	\$11.69
RETURNS FOR \$100 OF FEED	\$ _____	\$168	\$177	\$153
Number of head of other dairy cattle	_____	18.0	18.0	16.5

Table 20, Feed Costs and Returns From All Dairy Cattle, 1942

Items	Your farm	Average of 174 farms	35 farms highest in butterfat per cow	35 farms lowest in butterfat per cow
Feeds per animal unit, lbs.:				
Concentrates	_____	1737	2196	1436
Hay and fodder	_____	4128	4427	3498
Silage	_____	5181	4680	5353
Feed cost per animal unit:				
Concentrates	\$ _____	\$22.93	\$29.88	\$17.81
Roughages	_____	22.12	23.17	19.81
Pasture	_____	4.77	4.44	4.81
TOTAL FEED COSTS	\$ _____	\$49.82	\$57.49	\$42.43
Value of produce per animal unit:				
Dairy products	\$ _____	\$ 85.31	\$108.10	\$60.54
Net increase in value of dairy cattle	_____	30.81	36.83	25.34
TOTAL VALUE PRODUCED	\$ _____	\$116.12	\$144.93	\$85.88
RETURNS ABOVE FEED PER ANIMAL UNIT	\$ _____	\$66.30	\$87.44	\$43.45
RETURNS PER \$100 OF FEED	\$ _____	\$239	\$260	\$215
Animal units of dairy cattle	_____	28.0	27.8	27.2

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

Table 21, Factors of Cost and Returns from Dual Purpose Cows, 1942

Items	Your farm	Average of 23 farms	8 farms highest in butterfat per cow	8 farms lowest in butterfat per cow
Pounds of butterfat per cow		189	227	151
Feeds per cow, lbs.:				
Corn		929	1171	490
Small grain		780	902	890
Com. feeds - under 25% protein		18	17	4
Com. feeds - over 25% protein		86	69	73
Legume hay		3207	3402	3053
Other hay		700	952	193
Fodder and stover		224	172	39
Total concentrates		1813	2159	1457
Total dry roughage		4131	4526	3285
Silage		4960	3286	5708
Total digestible nutrients*		3956	4522	2757
T.D.N. per lb. B. F.		23.4	19.8	25.3
% T.D.N. that is protein		13.7	13.9	14.2
Feed cost per cow:				
Concentrates	\$	\$23.65	\$27.71	\$19.38
Roughages		20.97	20.06	20.27
Pasture		5.77	6.08	5.95
TOTAL FEED COSTS	\$	\$50.39	\$53.85	\$45.60
Value of produce per cow:				
B. F. sales	\$	\$ 72.35	\$ 84.39	\$60.33
Dairy produce used in house		7.39	10.31	4.58
Milk to livestock		16.13	21.47	11.31
Net increases in value of cows		10.40	7.17	16.76
TOTAL VALUE PRODUCED	\$	\$106.27	\$123.34	\$92.98
RETURNS ABOVE FEED COST PER COW	\$	\$55.88	\$69.49	\$47.38
RETURNS FOR \$100 OF FEED	\$	\$232	\$252	\$209
Price received per lb. B. F. sold				
As manufacturing cream (cents)		44.5	44.4	44.1
As mkt. mk.&cm. & mk.for cheese (cts.)		57.1	-	-
Feed cost per lb. B. F. (cents)		27.4	23.5	30.7
% fall freshening		47.3	51.9	38.1
Number of cows		15.9	12.9	18.8

*Not including nutrients received from pasture.

Table 22, Feed Costs and Returns From Other Dual Purpose Cattle, 1942

Items	Your farm	Average of 22 farms*	8 farms highest in returns above feed	8 farms lowest in returns above feed
Feeds per head, lbs.:				
Concentrates		581	537	587
Hay and fodder		1773	1795	1605
Silage		1614	1399	1526
Whole milk		290	256	267
Skim milk		1129	1375	882
Feed cost per head:				
Concentrates	\$	7.43	7.01	7.35
Roughages		8.20	7.80	7.68
Milk		8.16	8.02	6.93
Pasture		1.86	1.75	2.19
TOTAL FEED COSTS	\$	25.65	24.58	24.15
Net increase in value	\$	41.94	54.25	28.64
RETURNS ABOVE FEED COST PER HEAD	\$	16.29	29.67	4.49
RETURNS FOR \$100 OF FEED	\$	167	222	119
Number of head		25.0	22.3	25.4

Table 23, Feed Costs and Returns From All Dual Purpose Cattle

Items	Your farm	Average of 23 farms	8 farms highest in returns above feed	8 farms lowest in returns above feed
Feeds per animal unit, lbs.:				
Concentrates		1494	1358	1699
Hay and fodder		3729	4484	3520
Silage		4003	2635	4884
Feed cost per animal unit:				
Concentrates	\$	19.48	17.95	21.86
Roughages		18.13	18.80	18.71
Pasture		4.98	5.11	4.84
TOTAL FEED COSTS	\$	42.59	41.86	45.41
Value of produce per animal unit:				
Dairy products	\$	49.89	62.62	43.53
Net increase in value		38.82	41.71	31.76
TOTAL VALUE PRODUCED	\$	88.71	104.33	75.29
RETURNS ABOVE FEED PER ANIMAL UNIT	\$	46.12	62.47	29.88
RETURNS FOR \$100 OF FEED	\$	220	273	168
Animal units		28.3	23.1	31.6

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

Table 24, Feed Costs and Returns From Beef Cattle, 1942

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:		22	11	11
Feeds per animal unit, lbs.:				
Concentrates		1239	1618	861
Legume hay		1856	2051	1662
Other hay		540	482	597
Fodder and stover		297	420	173
Silage		3170	3770	2570
Skim milk*		557	451	663
Whole milk*		28	40	17
Feed cost per animal unit:				
Concentrates	\$	\$15.70	\$20.64	\$10.76
Roughages		12.82	14.26	11.37
Milk*		1.81	1.81	1.82
Pasture		6.29	6.19	6.39
TOTAL FEED COSTS	\$	\$36.62	\$42.90	\$30.34
Value of produce per animal unit:				
Dairy products	\$	\$.96	\$.78	\$ 1.14
Net increase in value of animals		59.55	84.25	34.85
TOTAL VALUE PRODUCED	\$	\$60.51	\$85.03	\$35.99
RETURNS ABOVE FEED COST PER ANIMAL UNIT	\$	\$23.89	\$42.13	\$ 5.65
RETURNS FOR \$100 OF FEED	\$	\$173	\$208	\$137
Number of cows and herd bulls		12.6	8.7	16.5
Number of animal units in the herd		25.8	17.0	34.6
Feeder cattle: no. of farms:		28	9	9
Feeds per cwt. beef produced, lbs.:				
Corn		690	644	886
Small grain		78	8	130
Com. feeds - under 25% protein		3	1	2
Com. feeds - over 25% protein		33	25	41
Legume hay		273	215	365
Other hay		77	110	33
Fodder and stover		74	177	14
Total concentrates		804	678	1059
Total dry roughages		424	502	412
Silage		394	277	514
Feed cost per cwt. beef produced:				
Concentrates	\$	\$ 9.89	\$ 8.14	\$13.01
Roughages		1.82	1.69	2.14
Pasture		.24	.14	.29
TOTAL FEED COSTS	\$	\$11.95	\$ 9.97	\$15.44
Net increase in value of feeders	\$	\$16.48	\$17.89	\$16.34
RETURNS ABOVE FEED COST PER CWT. BEEF PROD.	\$	\$ 4.53	\$ 7.92	\$.90
RETURNS FOR \$100 OF FEED	\$	\$154	\$197	\$109
Price received per cwt. beef sold in 1942	\$	\$11.69	\$12.07	\$11.65
Price paid for feeder cattle bought in 1942		\$11.46	\$11.17	\$11.36
No. of animal units		20.3	34.8	15.6
Pounds of beef produced		11545	20368	7889

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

Table 25, Feed Costs and Returns from Sheep, 1942

Items	Your farm	Average of all farms	Farms highest in returns above feed	Farms lowest in returns above feed
Native sheep: no. of farms:		65	13	13
Feeds per head,* lbs.:				
Concentrates		75	92	70
Legume hay		221	220	213
Other hay		14	11	7
Fodder and stover		26	15	6
Silage		126	92	76
Feed cost per head:				
Concentrates	\$	.95	\$ 1.14	\$.89
Roughages		1.10	1.08	.94
Pasture		.96	.95	.93
TOTAL FEED COSTS	\$	\$ 3.01	\$ 3.17	\$ 2.76
Value of produce per head:				
Wool	\$	\$ 2.86	\$ 2.91	\$ 2.71
Net increase in value of sheep		5.92	10.23	1.85
TOTAL VALUE PRODUCED	\$	\$ 8.78	\$13.14	\$ 4.56
RETURNS ABOVE FEED COST PER HEAD	\$	\$ 5.77	\$ 9.97	\$ 1.80
RETURNS FOR \$100 OF FEED	\$	\$319	\$446	\$210
Price per cwt. of lambs sold	\$	\$12.89	\$13.32	\$12.75
Price per lb. wool sold (cts.)		41.2	40.4	40.8
Pounds of wool per sheep sheared		9.0	9.5	9.0
Number of ewes kept for lambing		32.2	22.5	28.0
% lamb crop**		93.6	106.1	73.8
% death loss**		6.8	2.9	8.2
No. of head of sheep*		48.8	33.2	44.1
Feeder sheep: no. of farms		4		
Feeds per cwt. sheep produced, lbs.:				
Concentrates		965		
Legume hay		642		
Other hay		0		
Fodder and stover		103		
Silage		289		
Feed cost per head:				
Concentrates	\$	\$12.03		
Roughages		2.88		
Pasture		.48		
TOTAL FEED COSTS	\$	\$15.39		
Net Increase in value of sheep	\$	\$16.38		
RETURNS ABOVE FEED COST PER CWT. PROD.	\$	\$.99		
RETURNS FOR \$100 OF FEED	\$	\$129		
Price per cwt. sheep sold	\$	\$12.27		
Pounds of sheep produced		4506		

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

**Lambs which die before reaching 6 wks. of age are not included.

Table 26, Feed Costs and Returns From Hogs and Chickens, 1942

Items	Your farm	Average of all farms	Farms highest returns above feed	Farms lowest returns above feed
Hogs: No. of farms:		198	40	40
Feed per cwt. hogs produced, lbs.:				
Corn		350	289	443
Small grain		121	83	154
Com. feeds - under 25% protein		5	4	6
Com. feeds - over 25% protein		21	17	22
Total concentrates		497	393	625
Skim milk, buttermilk and whey		189	202	218
Feed cost per cwt. hogs produced:				
Concentrates	\$	\$ 6.56	\$ 5.17	\$ 8.16
Skim milk, buttermilk and whey		.40	.43	.49
Pasture		.20	.14	.34
TOTAL FEED COSTS	\$	\$ 7.16	\$ 5.74	\$ 8.99
Net increase in value per cwt. hogs prod. \$		\$14.25	\$14.71	\$13.63
RETURNS ABOVE FEED COST PER CWT. HOGS PROD \$		\$ 7.09	\$ 8.97	\$ 4.64
RETURNS FOR \$100 OF FEED	\$	\$207	\$255	\$153
Price received per cwt. hogs sold	\$	\$13.24	\$13.27	\$13.32
Total no. of litters raised		16.0	15.6	14.8
No. of pigs born per litter		8.0	8.7	7.5
No. of pigs weaned per litter		6.3	6.8	5.9
% of two-litter system		48.7	62.1	33.1
Pounds of hogs produced		24763	27023	21725
Chickens: No. of farms:		184	37	37
Feed per hen, lbs.:				
Grain		99	112	92
Commercial feeds		28	31	24
Total concentrates		127	143	116
Skim milk and buttermilk		18	20	10
Feed cost per hen:				
Concentrates	\$	\$ 2.23	\$ 2.50	\$ 2.01
Skim milk and buttermilk		.04	.04	.02
TOTAL FEED COST	\$	\$ 2.27	\$ 2.54	\$ 2.03
Value of produce per hen:				
Eggs sold and used in house	\$	\$ 3.51	\$ 4.42	\$ 2.46
Net increase in value of chickens		.92	1.82	.18
TOTAL VALUE PRODUCED	\$	\$ 4.43	\$ 6.24	\$ 2.64
RETURNS ABOVE FEED COST PER HEN	\$	\$ 2.16	\$ 3.70	\$.61
RETURNS FOR \$100 OF FEED	\$	\$200	\$251	\$134
Price rec'd per doz. eggs sold (cts.)		29.0	29.3	28.2
Eggs laid per hen		146	182	105
No. of hens		238	217	223
% of hens that are pullets		83	90	75

Table 27, Feed Costs and Returns for Turkeys, 1942

Items	Your farm	Average of 15 farms	7 farms highest returns above feed	7 farms lowest returns above feed
Feed per cwt. turkeys produced, lbs.:				
Grain		422	474	384
Com. feeds - under 25% protein		53	54	53
Com. feeds - over 25% protein		130	131	134
Total concentrates		605	659	571
Skim milk		46	32	52
Feed cost per cwt. turkeys produced	\$	\$11.90	\$12.17	\$12.00
Value of produce per cwt. turkeys prod.				
Eggs and poults	\$	\$ 2.01	\$ 3.63	\$ 0
Net increases in turkeys		26.45	28.47	25.23
TOTAL VALUE PRODUCED	\$	\$28.46	\$32.10	\$25.23
RETURNS ABOVE FEED COST PER CWT. TURKEYS PRODUCED	\$	\$16.56	\$19.93	\$13.23
RETURNS FOR \$100 FEED	\$	\$253	\$292	\$211
Price rec'd per lb. turkey sold (cts.)		29.0	28.4	30.1
Pounds of turkeys produced		22212	22333	21824

Table 28, Feed Costs for Horses and Misc. Power and Machinery Expense, 1942

Items	Your farm	Average of 198 farms*	40 most profitable farms	39 least profitable farms*
Feed per horse, **lbs.:				
Grain		1675	1944	1465
Hay		4860	5060	4934
Fodder and stover		345	160	220
Feed costs per horse:				
Grain	\$	\$21.07	\$24.23	\$18.47
Roughage		15.38	15.43	15.79
Pasture		3.80	3.56	3.72
TOTAL FEED COSTS	\$	\$40.25	\$43.22	\$37.98
Number of work horses		4.0	4.4	3.8
Number of colts		.9	1.0	.9
Crop acres per farm		150.0	203.6	129.2
Tractor and horse exp. per crop acre	\$	\$ 3.19	\$ 3.01	\$ 3.65
Crop and general mach. exp. per crop acre	\$	\$ 1.70	\$ 1.68	\$ 2.01

*Three farmers did not have horses. The crop acres and expenses per crop acre are averages of 201 farms.

**Two colts equal one horse.

Table 29, Family Living From the Farm, 1942

Items	Your farm	Average 201 farms	40 most profit-able farms	40 least profit-able farms	Your farm	Average 201 farms	40 most profit-able farms	40 least profit-able farms
	No. of persons (Family adult equiv. (Other* _____)	_____	3.3	3.6	2.7	_____	_____	_____
	_____	.6	.9	.5	_____	_____	_____	_____
Wholemilk _____	_____	1240 qts.	1414	1011	_____	\$54.34	\$59.32	\$44.64
Skim milk _____	_____	256 qts.	395	190	_____	1.41	2.40	.90
Cream _____	_____	212 pts.	281	191	_____	31.24	38.97	30.48
Farm made butter _____	_____	- lbs.	-	-	_____	.08	-	.09
Eggs _____	_____	195 doz.	222	132	_____	52.19	58.45	36.31
Cattle _____	_____	346 lbs.	524	264	_____	31.48	49.57	24.10
Hogs _____	_____	512 lbs.	587	532	_____	64.98	74.35	69.30
Sheep _____	_____	4 lbs.	-	-	_____	.41	-	-
Poultry _____	_____	152 lbs.	183	140	_____	25.38	33.91	22.89
Potatoes _____	_____	20 bu.	22	18	_____	19.04	21.07	15.80
Vegetables&fruits _____	_____				_____	45.42	48.84	43.12
Farm fuel _____	_____	6 cds.	6	5	_____	32.06	33.58	26.39
Rental vl. of house _____	_____				_____	217.33	279.41	191.78
Misc. (wool, honey, etc.) _____	_____				_____	.26	-	.50
Total						\$575.62	\$699.87	\$506.30

Table 30, Household and Personal Expenses For Those Farms Which Kept Complete Accounts of These Expenses, 1942

Items	Your farm	Average of 134 farms	27 most profit-able farms	27 least profit-able farms
	Number of persons - family _____	_____	4.5	4.9	3.8
Number of persons, (Family adult equivalent (Other* _____)	_____	3.4	3.6	2.9
	_____	.6	1.1	.4
Food and meals bought _____	\$ _____	\$401	\$434	\$355
Operating and supplies _____	_____	137	154	120
Clothing and clothing materials _____	_____	204	268	142
Personal care, personal spending _____	_____	69	100	56
Furnishings and equipment _____	_____	143	189	119
Education, recreation and development _____	_____	76	111	47
Medical care and health insurance _____	_____	118	150	81
Church, welfare, gifts and income tax _____	_____	139	183	114
Personal share of auto expense _____	_____	85	95	80
Household share of elect. & gas eng. exp. _____	_____	43	49	41
H.H. & pers. shr. of new auto, gas eng. & motors bot _____	_____	29	44	32
Life insurance and other investments _____	_____	432	434	289
Total household and personal cash expenses		1876	2211	1476
Food furnished by the farm _____		343	385	328
Fuel furnished by the farm _____		32	30	33
House rental _____		214	278	173
Total household and personal expenses		2465	2904	2010

*Hired help or others boarded.

Table 31. Summary of Farm Earnings by Counties, 1942

	Dodge & Mower	Free-born	Goodhue & Dakota	Nicollet	Olmsted & Wabasha	Rice & Scott	Steele	Waseca & Le Sueur	Winona
FARM EXPENSES									
Cattle bought	\$ 512	\$ 470	\$ 173	\$ 1060	\$ 313	\$ 187	\$ 401	\$ 248	\$ 375
Hogs bought	75	190	131	284	200	78	181	253	404
Sheep bought	366	11	16	18	3	7	5	57	26
Poultry bought	123	64	127	81	117	164	102	147	306
Feed	1399	1210	1297	1781	1000	1104	1397	1579	1883
Other livestock expense	131	144	103	133	66	105	151	143	144
Crop expense	361	251	345	239	262	177	317	252	413
Power mach. and equipment	1338	1306	1409	1228	1410	986	1283	1513	1858
Custom work hired	197	187	204	102	144	270	79	135	185
Buildings	578	336	445	453	365	370	914	742	448
Hired labor	563	493	754	499	446	469	675	740	525
Taxes, insurance and misc.	307	348	397	284	426	301	393	345	398
(1) Total purchases	<u>6030</u>	<u>5010</u>	<u>5101</u>	<u>6162</u>	<u>4752</u>	<u>4218</u>	<u>5898</u>	<u>5854</u>	<u>6965</u>
(2) Decrease in capital	-	-	-	-	-	-	-	-	-
(3) Board to hired labor	135	183	209	185	120	182	154	205	209
(4) Unpaid family labor	265	201	348	385	249	292	332	232	430
(5) Int. on farm capital	1301	1281	1344	1375	1273	1028	1355	1397	1360
(6) Total expenses	<u>7731</u>	<u>6675</u>	<u>7302</u>	<u>8107</u>	<u>6394</u>	<u>5720</u>	<u>7739</u>	<u>7688</u>	<u>8964</u>
FARM RECEIPTS									
Cattle sales	\$ 1479	\$ 1542	\$ 1302	\$ 2276	\$ 1279	\$ 845	\$ 1521	\$ 1153	\$ 2066
Dairy products	2389	2132	2337	1503	2192	2495	1784	1655	2611
Hogs	3226	3655	2012	3909	2394	1734	3886	4004	2840
Sheep and wool	396	148	214	47	116	50	140	248	323
Poultry and eggs	1468	730	2086	800	338	1621	1053	2449	2552
Crops	1045	560	1379	897	621	421	1164	997	886
AAA payment	331	397	336	348	491	372	318	348	313
Misc. cash receipts	425	532	441	272	317	477	488	287	513
(7) Total farm sales	<u>10759</u>	<u>9696</u>	<u>10107</u>	<u>10052</u>	<u>8248</u>	<u>8015</u>	<u>10354</u>	<u>11141</u>	<u>12104</u>
(8) Increase in capital	1419	1134	1367	2582	1572	1223	1125	1112	1376
(9) Family living from farm	542	484	579	637	520	589	553	597	650
(10) Total receipts	<u>12720</u>	<u>11314</u>	<u>12053</u>	<u>13271</u>	<u>10340</u>	<u>9827</u>	<u>12032</u>	<u>12850</u>	<u>14130</u>
(6) Total expenses	7731	6675	7302	8107	6394	5720	7739	7688	8964
(11) Oper. labor earnings	4989	4639	4751	5164	3946	4107	4293	5162	5166

Table 32, Miscellaneous Information - Averaged by Counties, 1942

	Dodge & Mower	Free-born	Goodhue & Dakota	Nicollet	Olmsted & Wabasha	Rice & Scott	Steele	Waseca & Le Sueur	Winona
<u>FARM INVENTORIES (Beginning of year)</u>									
Horses	\$ 408	\$ 350	\$ 368	\$ 370	\$ 327	\$ 393	\$ 342	\$ 463	\$ 387
Productive livestock	4015	3743	3271	4301	3715	2765	4067	3979	3905
Crop, seed and feed	2909	2519	2935	2182	2210	1652	2847	3104	2859
Mach. and equipment	3094	2833	3640	3207	2939	2373	3326	3292	3530
Buildings	6583	6880	7131	6960	6467	5725	7685	6276	7094
Land	8301	8721	8848	9194	9015	7028	8266	10271	8726
Total farm capital	25310	25046	26193	26214	24673	19936	26533	27385	26501
<u>MEAS. OF FARM ORG. AND MANAGEMENT EFFIC.</u>									
Crop yields - % of ave.	94	92	102	105	96	106	95	104	101
% high return crops	38.4	41.6	42.2	43.5	39.7	49.5	48.0	45.4	43.1
Index ret. from livestock	105	96	105	91	102	110	95	99	100
A. U. livestock per 100 A.	23.3	27.7	23.3	24.4	25.5	24.3	25.8	25.6	27.9
Work units	711	746	705	673	645	572	695	714	791
Work units per worker	338	377	297	295	334	269	299	315	335
Exp. per work unit	\$ 2.27	\$ 1.82	\$ 2.34	\$ 2.13	\$ 2.05	\$ 2.34	\$ 2.37	\$ 2.66	\$ 2.06
<u>DISTRIBUTION OF ACRES IN FARM</u>									
Small grain	71.8	51.9	77.9	72.0	66.6	45.1	54.4	58.8	73.6
Cultivated crops	54.4	56.1	39.9	59.2	41.5	32.5	49.3	55.1	44.2
Tillable hay land	34.4	34.4	35.0	25.3	35.2	27.0	26.7	26.0	46.4
Tillable pasture	31.1	25.8	28.6	13.7	34.7	11.4	14.9	15.1	29.0
Total acres in farm	236.8	233.0	229.3	232.3	237.9	186.8	211.0	230.7	278.5
% land tillable	82.4	75.2	80.1	75.9	75.3	64.7	73.2	69.8	73.0
<u>CROP YIELDS PER ACRE</u>									
Flax, bu.	9.2	8.4	11.8	8.7	12.6	15.2	10.0	11.5	10.5
Barley, bu.	23.2	-	25.0	30.0	23.6	36.3	26.9	28.8	27.1
Oats, bu.	47.7	40.0	49.7	52.4	43.1	56.4	55.8	53.1	47.0
Corn, grain, bu.	55.6	57.0	62.9	66.0	65.1	60.4	52.9	61.6	64.2
Corn silage, tons	8.1	9.4	9.8	9.8	9.0	9.7	9.2	8.1	9.1
Alfalfa hay, tons	2.5	2.5	2.6	2.6	2.8	2.9	2.9	2.9	2.8
<u>AMOUNT OF LIVESTOCK</u>									
Total animal units	50.1	53.6	46.4	52.5	50.0	37.3	49.0	51.0	57.5
% dairy and du. pur. cattle	59.5	61.4	60.6	54.4	58.6	70.3	59.9	52.8	66.7
% in beef breeding herd	4.4	2.3	7.2	4.0	10.3	1.7	1.8	1.6	-
% feeder cattle	2.9	3.4	1.6	5.9	3.3	.6	1.7	2.7	3.4
% sheep	8.3	4.2	7.2	.8	4.2	3.1	4.1	6.4	5.2
% hogs	18.8	23.7	13.6	29.6	18.5	16.5	25.9	27.0	15.0
% turkeys	1.2	-	3.5	-	1.1	2.9	-	3.4	6.2
% hens	4.9	5.0	6.3	5.3	4.0	4.9	6.6	6.1	3.5

Table 33, Summary by Years

	Average 1928-29	Average 1930-32	Average 1933-35	Average 1936-37	1938	1939	1940	1941	1942
Number of farms	148	157	126	159	122	154	148	197	201
Acres in farm	170	194	204	210	241	225	225	227	230
Crop acres in farm	116	134	140	140	164	147	148	147	150
Farm inventory	\$24,574	\$21,767	\$17,045	\$20,533	\$22,704	\$20,180	\$24,044	\$24,117	\$26,088
Farm Earnings (See page 30.)									
FARM EXPENSES									
Horses bought	\$ 36	\$ 32	\$ 39	\$ 51	\$ 36	\$ 28	\$ 28	\$ 32	\$ 34
Cattle	141	79	121	182	217	299	607	421	444
Hogs bought	85	69	49	70	35	62	60	121	203
Sheep bought	6	10	35	54	110	98	82	45	53
Poultry bought	37	39	49	72	100	95	100	118	132
Misc. crop expenses	186	177	154	201	278	235	182	202	284
Feed bought	440	324	313	580	603	475	600	820	1416
Power mach. (new & exp.) (farm share)	399	340	342	625	578	530	604	821	696
Custom work hired	-	-	-	-	-	-	123	115	164
Machinery and equipment (new)	190	132	139	305	330	261	296	470	464
Machinery and equipment (upkeep)	72	57	55	66	78	65	68	90	166
Building, fencing, tiling (new)	130	98	99	254	282	250	352	313	245
Buildings, fencing, tiling, (upkeep)	52	29	41	80	114	69	84	164	226
Hired labor	272	252	261	404	519	340	404	454	571
Taxes and insurance	298	338	269	271	322	285	276	280	313
General farm	30	31	26	35	40	36	42	43	46
Miscellaneous livestock expense	66	72	55	83	130	110	78	101	123
(1) Total farm purchases	2,440	2,079	2,107	3,333	3,802	3,238	3,986	4,610	5,580
(2) Decrease in farm capital	-	755	-	-	22	-	-	-	-
(3) Board furnished hired labor	102	93	91	151	174	128	141	145	177
(4) Interest on farm capital	1,228	1,089	852	1,026	1,135	1,024	1,202	1,206	1,304
(5) Unpaid family labor	358	292	220	250	231	236	269	278	304
(6) Total farm exp. (Sum of (1) to (5))	4,128	4,308	3,270	4,760	5,364	4,626	5,598	6,239	7,365

Table 33, Summary by Years (Continued)

	Average 1928-29	Average 1930-32	Average 1933-35	Average 1936-37	1938	1939	1940	1941	1942
FARM RECEIPTS									
Horses	\$ 30	\$ 30	\$ 32	\$ 65	\$ 51	\$ 45	\$ 48	\$ 31	\$ 34
Cattle	753	467	457	650	838	813	1,176	1,215	1,514
Dairy products	1,662	1,209	1,207	1,633	1,509	1,170	1,454	1,720	2,078
Hogs	1,164	950	635	1,201	1,248	926	984	1,778	3,104
Sheep and wool	52	39	125	189	217	216	162	173	177
Poultry	140	139	221	394	520	344	339	583	722
Eggs	275	232	305	391	378	301	405	523	765
Corn	37	39	96	171	190	142	128	88	111
Small grain	24	140	272	460	214	274	235	262	312
Other crops	163	170	155	165	185	157	250	287	457
Misc.	134	151	135	259	314	231	295	342	269
Income from work off farm	102	112	132	172	219	136	148	146	119
Agric. Adjustment payments	0	0	204	176	223	320	324	331	343
(7) Total farm sales	4,753	3,578	3,976	5,926	6,136	5,391	5,948	7,479	10,005
(8) Increase in farm capital	617	-	470	728	-	891	1,017	1,432	1,498
(9) Family living from the farm	325	248	227	294	252	260	458	505	576
(10) Total farm receipts	5,695	3,926	4,673	6,948	6,388	6,242	7,423	9,416	12,079
(6) Total farm expenses	4,128	4,308	3,270	4,760	5,364	4,626	5,598	6,239	7,365
(11) Operator's labor earnings	1,567	- 382	1,403	2,188	1,024	1,616	1,825	3,177	4,714
MISCELLANEOUS ITEMS									
Yield per acre, corn (bu.)	44.8	43.5	44.5	39.1	51.7	59.0	56.3	57.6	61.2
Yield per acre, barley (bu.)	36.0	30.1	23.5	25.8	28.2	33.5	41.0	29.0	28.1
Yield per acre, oats (bu.)	46.0	48.1	34.8	42.0	35.9	48.5	58.2	31.5	49.3
Yield per acre, alfalfa (tons)	3.0	2.6	2.3	2.0	2.1	2.2	2.3	2.6	2.7
% of till. land in high return crop	31.9	34.1	39.0	41.3	41.3	40.8	41.4	41.0	43.5
Productive livestock units per 100 A.	19.2	20.7	19.9	19.8	19.7	18.5	23.4	24.6	25.2
No. of work units	599	729	756	773	866	759	658	664	690
Work units per worker	310	339	328	340	360	349	292	301	316
Pow., mach., equip., & bldg. exp. per work unit	\$1.76	\$1.34	\$1.18	\$1.38	\$1.44	\$1.41	\$1.66	\$1.87	\$2.23
No. of farms with tractors	80	101	90	132	114	134	134	188	195
No. of work horses	5.4	5.4	5.2	4.6	4.4	4.1	4.1	4.0	3.9
No. of colts	.8	.8	.8	1.2	1.3	1.1	1.0	.9	.9
No. of dairy and dual purpose cows	14.2	17.1	18.5	17.8	18.6	17.2	17.1	17.4	18.1

Table 33, Summary by Years (Continued)

Miscellaneous items (Continued)	Average 1928-29	Average 1930-32	Average 1933-35	Average 1936-37	1938	1939	1940	1941	1942
No. of litters of pigs	9.3	11.7	8.7	9.0	11.1	11.5	12.1	13.8	15.7
Pounds of hogs produced	12,706	16,219	12,260	12,778	15,948	16,014	17,671	20,330	24,383
No. of head of sheep	7.0	11.5	17.4	17.8	23.3	16.2	18.6	16.1	16.2
No. of hens	136	156	183	172	187	177	197	197	219
Pounds of B.F. per dairy cow	244	241	236	238	240	245	260	261	253
Pounds of B.F. per dual purpose cow	-	-	-	-	-	-	181	203	189
No. of pigs per litter	6.3	6.2	6.1	6.4	6.7	6.3	6.3	6.3	6.3
No. of eggs laid per hen	95	112	122	130	135	126	131	142	146
PRICE RECEIVED PER:									
Lb. B.F. sold	\$.52	\$.30	\$.23	\$.38	\$.31	\$.28	\$.33	\$.39	\$.45
Cwt. hogs sold	8.92	5.82	5.39	9.36	7.69	6.17	5.27	9.20	13.24
Cwt. feeder cattle sold	-	-	-	-	-	-	0.67	9.72	11.69
Lamb sold	9.78	4.64	5.55	7.16	6.04	6.48	6.69	8.72	-
Lb. wool sold	.36	.13	.21	.30	.18	.26	.31	.40	.41
Doz. eggs sold	.28	.17	.16	.20	.18	.15	.17	.22	.29
Lb. turkey sold	-	-	.20	.20	.20	.17	.16	.21	.29
RETURN ABOVE FEED COST PER:									
Dairy cow	\$76.50	\$28.16	\$32.76	\$57.40	\$47.89	\$45.05	\$58.05	\$71.65	\$84.86
Dual purpose cow	-	-	-	-	-	-	31.69	52.01	55.88
Cwt. hogs prod.	1.50	.30	1.82	2.62	3.47	1.82	1.50	5.41	7.09
Head of sheep	5.50	.07	2.24	3.58	1.28	3.18	3.43	5.48	5.77
Hen	1.82	1.13	1.05	.95	1.12	.97	.92	1.66	2.16
Cwt. turkeys prod.	-	-	11.59	9.10	12.38	8.27	6.30	10.72	16.56
FEED COST PER:									
Dairy cow	\$69.50	\$52.27	\$43.37	\$47.50	\$40.55	\$38.67	\$43.22	\$49.10	\$58.29
Dual purpose cow	-	-	-	-	-	-	36.29	39.50	50.39
Cwt. hogs produced	7.66	4.50	4.36	6.30	3.86	3.51	4.11	5.17	7.16
Head of sheep	2.82	2.26	2.59	2.50	2.37	2.33	2.61	2.57	3.01
Hen	1.62	1.09	1.38	1.82	1.30	1.23	1.36	1.80	2.27
Cwt. turkeys prod.	-	-	7.70	9.16	7.75	7.09	9.06	9.33	11.90
Horse	55.09	36.13	37.52	39.78	29.94	27.61	31.33	35.49	-
PRICE OF FEED:									
Shelled corn (per bu.)	\$.70	\$.49	\$.48	\$.75	\$.43	\$.36	\$.46	\$.52	\$.69
Barley (per bu.)	.60	.36	.53	.60	.39	.30	.31	.38	.57
Oats (per bu.)	.48	.25	.29	.32	.22	.23	.26	.32	.44
Bran (per cwt.)	1.70	1.00	1.05	1.38	1.05	1.10	1.20	1.45	1.95
Oilmeal (per cwt.)	3.00	2.00	1.85	2.15	2.30	2.15	1.75	2.00	2.30
Alfalfa (per ton)	14.75	12.00	10.80	9.50	7.50	7.00	7.50	8.00	8.00

Footnote for pages 27, 28 and 29.

The values of farm real estate in 1931 was reduced approximately 25 per cent from 1928-1930 values. The values in 1932 were reduced about 29 per cent from the 1931 values. Only land was affected by the reduction in 1931, but in 1932 buildings and improvements were cut 25 per cent. In 1936 the values of land were adjusted upward 10 per cent. The value of dairy cows was also adjusted downward in 1932 and upward in 1936. These capital losses were not included in the inventory decreases in the financial statement but the changes in valuation resulted in variations in the interest charge. No changes in the basis of inventory valuations were made in the years 1933 to 1935 and 1937 to 1942.

The financial statements differ also in that the unpaid family labor rate was \$60 per month for the 1928 to 1930 period, \$40 in 1931, \$30 in 1932 to 1934, \$40 in 1935, \$43 in 1936, \$45 in 1937 to 1940, \$50 in 1941 and \$60 in 1942; and the board for hired labor was figured at \$20 per month in the 1928 to 1930 period, \$15 per month in 1931, \$10 per month in 1932, 1933 and 1934, \$15 per month in 1935, \$18 per month in the years 1936 to 1940, \$20 in 1941 and \$25 in 1942.

These adjustments should be considered in comparing 1942 results with previous years.

Several changes appeared in the 1940-1942 records. The value of the house which had previously been omitted from the farm business was included and a rental charge equal to 10 per cent of the average value of the house was included with the farm perquisites. The standards used in the calculation of work units were changed in accordance with new information made available. This latter change also affected the work units per worker and the factor of expense per work unit. The acres in protected woodlots, roads, waste and farmstead were omitted from the acreage used in the calculation of amount of livestock per 100 acres. Several new livestock statements were added. Cattle were classified into two groups "specialized dairy cattle" and "dual purpose cattle." Statements for beef breeding cattle, feeder cattle and feeder sheep were also included.