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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
1941

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Cooperator: _____

Mimeographed Report No. 128
Division of Agricultural Economics
University Farm
St. Paul, Minnesota
March 1942

INDEX

	<u>Page</u>
Introduction	1
Summary of Farm Inventories.	4 & 5
Amount of Livestock.	5
Summary of Farm Earnings (Cash Statement).	6
Summary of Farm Earnings (Enterprise Statement).	7
Analysis of the Reasons for Differences in Operator's Earnings	8
Effect of Well Balanced Efficiency on Operator's Earnings.	11
Measures of Farm Organization and Management Efficiency.	12
Thermometer Chart.	13
Distribution of Acres in Farm.	14
Yield of Crops	15
Feed Costs and Returns from Dairy Cows	16
Feed Costs and Returns from Other Dairy Cattle	17
Feed Costs and Returns from All Dairy Cattle	17
Feed Costs and Returns from Dual Purpose Cows.	18
Feed Costs and Returns from other Dual Purpose Cattle.	19
Feed Costs and Returns from All Dual Purpose Cattle.	19
Feed Costs and Returns from the Beef Breeding Herd	20
Feed Costs and Returns from Feeder Cattle.	20
Feed Costs and Returns from Native Sheep	21
Feed Costs and Returns from Feeder Sheep	21
Feed Costs and Returns from Hogs	22
Feed Costs and Returns from Chickens	22
Feed Costs and Returns from Turkeys.	23
Feed Costs for Horses and Other Power Expense Items.	23
Farm Produce Used in House and House Rental.	24
Household and Personal Expenses.	24
Miscellaneous Information - Averaged by Counties	25
Summary of Farm Earnings 1928-1940	26 & 27
Comparison of Various Items with Previous Years.	27 & 28
Notes.	29

Fourteenth 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 1941

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 A. W. Anderson and 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, J. R. Gate, S. B. Simpson, C. F. Murphy and H. C. Pederson.

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 1941 were:

President, H. B. Hillier, Brownsdale, Mower County;
Vice-President, W. G. Frame, Northfield, Dakota County;
Secretary-Treasurer, John Vaughn, Elko, Scott County.

The board of directors included these officers and also the following: Leslie Wright, Dodge County; Ross Ferguson, Freeborn County; Joe Rostad, Goodhue County; Franklin Till, Olmsted County; J. T. Holmes, Rice County; Hiram Johnson, Steele County; Fred Scholljegerdes, Waseca County and Joe Ries, Winona County.

In addition to records kept by members of the S. E. Minn. Farm Mgt. Service, 26 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. 350-70. 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 1941:

Dakota	8	Mower	10	Steele	16
Dodge	8	Nicollet	29	Wabasha	9
Freeborn	23	Olmsted	15	Waseca	21
Goodhue	17	Rice	7	Winona	22
LeSueur	5	Scott	14	Total	204

The table on page 4 and succeeding pages show 197 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 retailed in 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

Weather conditions were unfavorable for early spring work; seeding of small grains was seriously delayed. However, warm weather together with frequent rains in May and June favored the rapid growth of crops. Corn cultivating and haying were hindered by wet weather. Hot, dry weather during July and August damaged small grains and pastures. Frequent rains in September delayed late threshing and other fall work. The fall of 1941 was considerably warmer and much wetter than usual. Light frosts in late September resulted in no serious damage. Killing frosts occurred in late October.

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 tile 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	1.67	+0.57	0.80	-0.01	0.67	+0.11	0.60	-0.28
February	0.28	-0.54	1.07	+0.16	0.42	-0.24	1.26	+0.56
March	2.54	+1.22	1.05	-0.18	0.91	-0.12	1.27	+0.18
April	1.34	-1.33	2.26	-0.14	2.34	+0.46	1.96	-0.01
May	4.42	+0.44	5.42	+1.18	3.34	+0.12	4.36	+0.95
June	5.84	+1.25	6.53	+1.95	3.44	-0.93	5.30	+0.59
July	1.90	-0.88	1.24	-2.24	1.83	-1.52	1.86	-1.54
August	0.31	-2.99	0.86	-2.79	1.84	-1.57	1.04	-2.42
September	6.32	+3.35	7.79	+3.82	3.46	+0.01	4.48	+0.84
October	3.83	+1.73	7.42	+5.29	4.00	+1.92	5.63	+3.44
November	0.78	-0.83	0.78	-0.69	0.32	-0.82	1.31	+0.02
December	0.57	-0.35	1.13	+0.18	0.51	-0.12	0.88	+0.17
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.

Summary of Farm Inventories (Beginning of Year), 1941.

Items	Your farm	Average of 197 farms	39 most profitable farms	39 least profitable farms
Size of farm (acres)	_____	227	283	204
Size of business (work units)*	_____	664	898	526
Horses	\$ _____	\$ 401	\$ 437	\$ 365
Productive livestock (total)	_____	2998	4216	2409
Dairy and dual purpose cows	_____	1132	1355	1052
Other dairy & dual purpose cattle	_____	601	757	517
Beef cattle (including feeders)	_____	460	843	288
Hogs	_____	458	662	280
Sheep (including feeders)	_____	151	265	113
Poultry (including turkeys)	_____	196	334	159
Crop, seed, and feed	_____	2196	3229	1378
Mach. & equipment (total)	_____	2644	3360	2050
Power mach. (f. share)	_____	928	1112	752
Crop & gen. mach. (f. share)	_____	1249	1596	873
Livestock equip. & supplies	_____	467	652	425
Buildings, fences, etc.	_____	6427	8141	5858
Land	_____	8735	10765	7295
Total farm capital	_____	23401	30148	19355

* 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	4.4	Soybeans for grain	"	1.0
Beef breeding herd	unit*	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	)	.4	Corn, hogged	"	1.1
Feeder sheep	100 lbs. produced	.5	Corn, shredded	"	2.8
Hogs	)	.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.

Summary of Farm Inventories (End of Year), 1941

	Your farm	Average of 197 farms	39 most profitable farms	39 least profitable farms
Horses	\$ _____	\$ 381	\$ 395	\$ 348
Productive livestock (total)	_____	3692	5102	2890
Dairy & dual purpose cows	_____	1234	1547	1109
Other dairy & dual purpose cattle	_____	656	860	533
Beef cattle (including feeders)	_____	496	746	444
Hogs	_____	896	1253	559
Sheep (including feeders)	_____	165	299	69
Poultry (including turkeys)	_____	245	397	176
Crop, seeds, and feed	_____	2451	3768	1552
Mach. & equipment (total)	_____	3033	3953	2323
Power Mach. (f. share)	_____	1100	1387	872
Crop & gen. mach.	_____	1393	1778	996
Livestock equipment & supplies	_____	540	788	455
Buildings, fences, etc.	_____	6549	8383	5871
Land	_____	8727	10765	7295
Total farm capital	_____	24833	32366	20279

Summary of Amount of Livestock

Items	Your farm	Average of 197 farms	39 most profitable farms	39 least profitable farms
No. of horses	_____	4.0	4.6	3.5
No. of colts	_____	.9	.9	.8
No. of dairy & dual purpose cows	_____	17.4	20.5	16.0
Head of other dairy & dual purpose cattle	_____	17.7	22.2	15.8
Head of cattle kept in beef breeding herd	_____	3.8	7.3	1.6
Pounds of feeder cattle produced	_____	1807	3058	1606
Litters of pigs	_____	13.8	19.5	8.1
Pounds of hogs produced	_____	20330	29477	11306
Head of sheep (2 lambs = 1 head)	_____	16.1	24.3	9.3
No. of hens	_____	197	256	192
Total no. of prod. livestock animal units	_____	47.2	65.3	37.5
% of total that are dairy & dual purpose cows	_____	40.0	34.1	45.4
% of total that are other dairy & dual purpose cattle	_____	21.0	18.7	23.6
% of total that are in beef breeding herd	_____	3.5	5.0	1.8
% of total that are feeder cattle	_____	4.3	5.6	3.7
% of total that are native sheep	_____	4.4	5.4	3.1
% of total that are feeder sheep	_____	.4	1.0	.3
% of total that are hogs	_____	19.2	19.7	15.4
% of total that are turkeys	_____	2.5	6.1	.9
% of total that are hens	_____	4.7	4.4	5.8
Number of farms with tractors	_____	186	39	33

Summary of Farm Earnings (Cash Statement), 1941

Items	Your farm	Average of 197 farms	39 most profitable farms	39 least profitable farms
FARM EXPENSES				
Horses bought	\$ 32	\$ 32	\$ 36	\$ 24
Dairy and dual-purpose cows bought	80	80	109	89
Other dairy & dual-purpose cattle "	81	81	138	44
Beef cattle bought (including feeders)	260	260	371	432
Hogs bought	121	121	109	161
Sheep bought (including feeders)	45	45	133	15
Poultry bought (including turkeys)	118	118	238	85
Misc. crop expenses	202	202	295	168
Feed bought	820	820	1380	727
Power mach. (farm share) (new)	418	418	621	290
Power mach. (farm share) (upkeep)	403	403	541	339
Custom work hired	115	115	107	121
Crop and general mach. (new)	332	332	430	276
Crop and general mach. (upkeep)	60	60	76	61
Livestock equipment (new)	138	138	234	91
Livestock equipment (upkeep)	30	30	35	36
Misc. livestock expense	101	101	177	87
Buildings and fencing (new)	313	313	466	253
Buildings and fencing (upkeep)	164	164	209	171
Hired labor	454	454	644	484
Taxes	252	252	323	228
Insurance	28	28	35	33
General farm	43	43	46	39
(1) Total farm purchases	4610	4610	6753	4254
(2) Decrease in farm capital	-	-	-	-
(3) Board furnished hired labor	145	145	179	117
(4) Interest on farm capital	1206	1206	1563	991
(5) Unpaid family labor	278	278	342	237
(6) Total farm expenses (Sum of (1) to (5))	6239	6239	8837	5599
FARM RECEIPTS				
Horses	31	31	32	20
Dairy and dual-purpose cows	294	294	394	239
Dairy products	1720	1720	2164	1618
Other dairy and dual-purpose cattle	313	313	421	270
Beef cattle (including feeders)	608	608	1151	552
Hogs	1778	1778	2625	1027
Sheep and wool (including feeders)	173	173	362	128
Poultry (including turkeys)	583	583	1547	244
Eggs	523	523	790	458
Corn	88	88	122	18
Small grain	262	262	273	181
Other crops	287	287	559	175
Power machinery sold	154	154	229	86
Crop and gen. mach. sold	68	68	95	48
Misc.	120	120	132	87
Income from work off the farm	146	146	213	52
Agricultural adjustment payments	331	331	419	245
(7) Total farm sales	7479	7479	11528	5448
(8) Increase in farm capital	1432	1432	2218	924
(9) Farm prod. used in house + house rent	505	505	605	454
(10) Total farm receipts (7)+(8)+(9)	9416	9416	14351	6826
(6) Total farm expenses	6239	6239	8837	5599
(11) Operator's labor earnings (10)-(6)	3177	3177	5514	1227

Summary of Farm Earnings (Enterprise Statement), 1941 (A)

Items	Your farm	Average of 197 farms	39 most profitable farms	39 least profitable farms
EXPENSES AND NET DECREASES				
Total power	\$ _____	\$ 699	\$ 898	\$ 620
Horses	_____	183	235	151
Tractor	_____	215	292	194
Truck	_____	82	127	66
Auto (farm share)	_____	105	120	91
Gas engine (farm share)	_____	3	3	4
Elec. plant or current (farm share)	_____	53	66	54
Hired power	_____	58	55	60
Crop and general machinery	_____	190	241	185
Livestock equipment	_____	85	112	87
Buildings, fencing and tiling	_____	246	295	279
Misc. productive livestock expense	_____	96	172	84
Labor	_____	905	1192	872
Real estate taxes	_____	220	278	200
Personal property tax	_____	32	45	28
Insurance	_____	28	35	33
General farm	_____	43	46	39
Interest on farm capital	_____	1206	1563	991
(1) Total expenses & net decreases	_____	3750	4877	3418
RETURNS AND NET INCREASES				
All productive livestock	_____	6419	9781	4547
Dairy and dual-purpose cows	_____	2059	2592	1875
Other dairy & dual-purpose cattle	_____	606	859	461
Beef breeding herd	_____	128	326	27
Feeder cattle	_____	238	340	247
Hogs	_____	2144	3166	1176
Sheep - farm flock	_____	128	209	63
Sheep - feeders	_____	15	55	6
Turkeys	_____	402	1326	79
Chickens	_____	699	908	613
Crops, seed and feed	_____	-116	-197	-314
Income from work off the farm	_____	146	213	52
Agricultural conservation payments	_____	331	419	245
Miscellaneous	_____	147	175	115
(2) Total returns & net increases	_____	6927	10391	4645
(1) Total expenses & net decreases	_____	3750	4877	3418
(3) Oper. labor earnings (2) minus (1)	_____	3177	5514	1227

(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 \$5514 and of those in the lower 20 per cent was \$1227. This is a range of \$4287 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.

Table 2. Relation of Crop Yields to Farm Earnings

Per cent crop yields were of the average for all 197 farms		No. of farms	Average operator's labor earnings
Group	Average		
Below 85	75	39	\$2,682
85-114	100	120	3,069
115 and above	125	38	4,027

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 36.0	31.1	58	\$3061
36.0-44.9	40.2	73	3081
45.0 and above	50.7	66	3386

*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 4. Relation of Returns From Productive Livestock to Farm Earnings

Group	Average	No. of farms	Average operator's labor earnings
Below 86	77	37	\$2484
86-113	99	120	3268
114 and above	126	40	3546

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

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

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

Group	Average	No. of farms	Average operator's labor earnings
Below 19.0	16.2	50	\$2875
19.0-28.9	23.4	98	3070
29.0 and above	35.3	49	3699

*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 6. Relation of Size of Business (Work units) to Farm Earnings

Group	Average	No. of farms	Average operator's labor earnings
Below 500	406	41	\$1958
500-799	630	115	3055
800 and above	1020	41	4740

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

Work unit per worker		No. of farms	Average operator's labor earnings
Group	Average		
Below 250	219	49	\$2477
250-324	286	81	3051
325 and above	381	67	3841

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		No. of farms	Average operator's labor earnings
Group	Average		
\$2.20 and above	\$2.68	53	\$2724
\$1.55-\$2.19	1.82	79	3344
Below \$1.55	1.27	65	3344

*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 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
None	5	=====	xxxxxx	\$ 823
One	18	=====	xxxxxxxxxxxxxx	1805
Two	30	=====	xxxxxxxxxxxxxxxxxx	2167
Three	44	=====	xxxxxxxxxxxxxxxxxxxxxxxxxxxx	3143
Four	55	=====	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	3259
Five	31	=====	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	4176
Six or seven	14	=====	xx	5524

The array in Table 9 indicates that it will be worth while for each cooperator to study carefully his ranking on pages 12 and 13, and learn his standing in respect to each of the above factors and the elements of strength and weakness in his farm business.

Measures of Farm Organization and Management Efficiency, 1941

Measures used in chart on page 13	Your farm	Average of 197 farms	39 most profit- able farms	39 least profit- able farms
Operator's Labor Earnings	\$ _____	\$3,177	\$5,514	\$1,227
(1) Crop yields*	_____	100	104	93
(2) % of tillable land in high return crops**	_____	41.0	41.2	41.3
(3) Ret. for \$100 feed to prod. livestock***	_____	100	106	95
(4) Prod. livestock units per 100 acres****	_____	24.6	26.3	22.6
(5) Size of business - work units	_____	664	898	526
(6) Work units per worker	_____	301	341	264
(7) Pow., mach., equip., & bldg. exp. per work unit \$	_____	\$1.87	\$1.72	\$2.21

Measures and items related to some of the above measures:

(3) Index of return for \$100 feed from -				
Dairy cattle	_____	100	107	94
Dual purpose cattle	_____	100	105	110
Beef breeding herd	_____	100	115	72
Feeder cattle	_____	100	97	74
Hogs	_____	100	107	94
Native sheep	_____	100	92	95
Feeder sheep	_____	100	128	-
Turkeys	_____	100	113	76
Chickens	_____	100	101	89
(5) Work units on crops	_____	176	254	136
Work units on productive livestock	_____	449	590	377
Other work units	_____	39	54	13
(6) Total number of workers	_____	2.2	2.7	2.0
Number of family workers	_____	1.4	1.6	1.3
Number of hired workers	_____	.8	1.1	.7
(7) Power expense per work unit	\$ _____	\$1.08	\$1.00	\$1.20
Crop machinery expense per work unit	_____	.28	.27	.33
Livestock equip. expense per work unit	_____	.13	.12	.16
Bldgs. and fencing exp. per work unit	_____	.38	.33	.52

* Given as a percentage of the average.

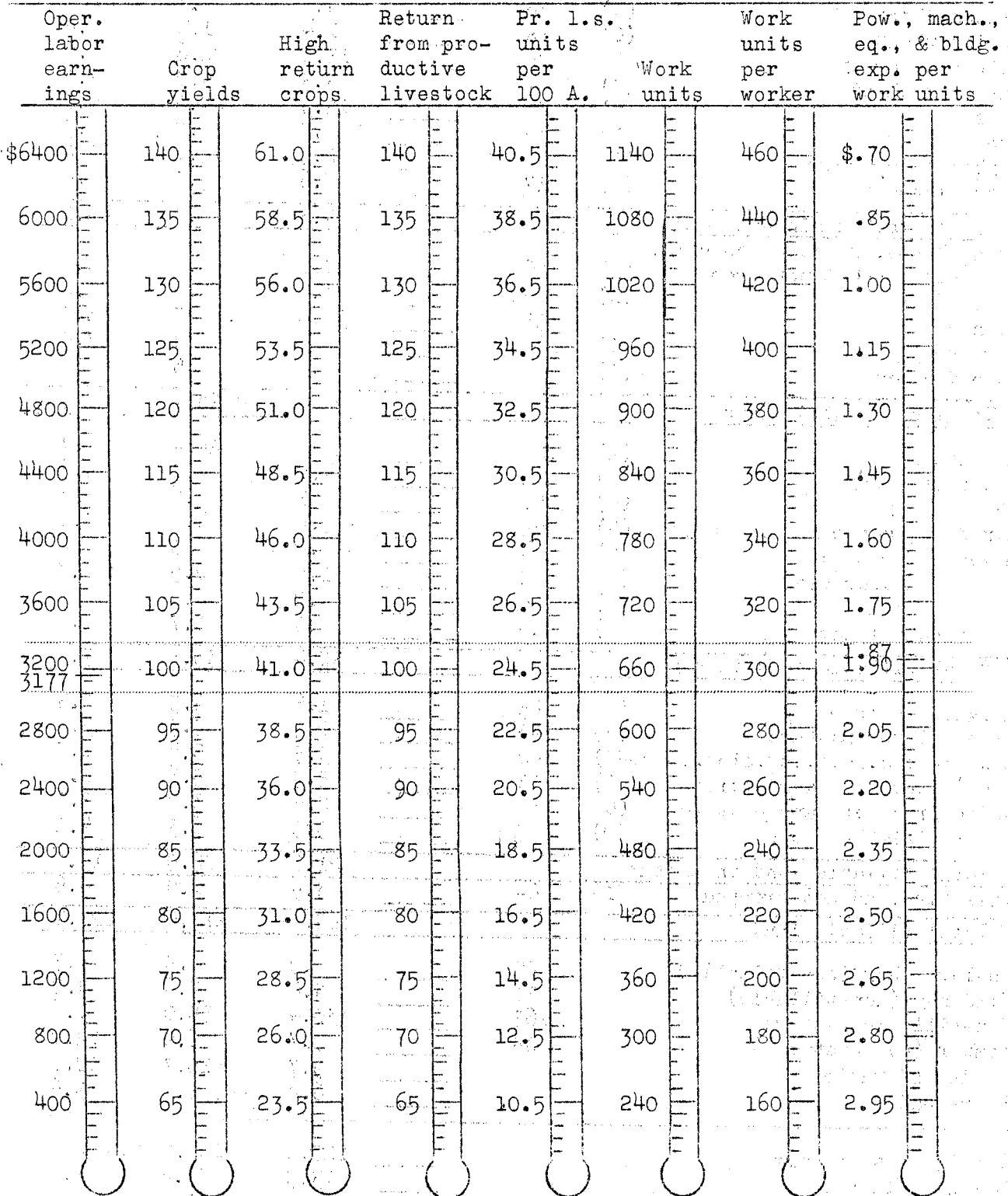
** Crops are marked on page 14 as (A), (B), (C), and (D). All of acres in (A) crops, one-half of acres in (B) crops, and one-fourth of acres in (C) crops are used in calculating per cent of tillable land in high return crops.

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



Distribution of Acres in Farm, 1941

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 197 farms	39 most profitable farms	39 least profitable farms
Canning peas	(A) 19	_____	1.2	2.3	.7
Flax	(B) 81	_____	5.9	9.5	5.0
Barley	(B) 113	_____	12.9	11.0	8.1
Winter wheat	(B) 56	_____	3.7	3.8	2.5
Spring wheat	(C) 38	_____	1.4	1.8	1.6
Oats and barley	(C) 86	_____	13.0	21.6	6.6
Oats and wheat	(C) 41	_____	3.3	4.2	3.0
Oats	(D) 141	_____	19.3	22.9	19.0
Rye	(D) 12	_____	.7	1.8	.9
Soybeans for grain	(D) 44	_____	2.5	5.1	1.0
Miscellaneous	(D) 17	_____	.6	1.7	.4
Total small grain and peas			64.5	85.7	48.8
Sugar beets, hybrid seed corn, potatoes and truck crops	(A) 106	_____	2.2	4.6	2.2
Sweet corn	(B) 24	_____	1.8	2.0	1.2
Corn grain	(B) 195	_____	30.5	43.7	21.3
Corn silage	(C) 161	_____	8.2	9.4	7.0
Corn fodder	(D) 25	_____	.5	.5	.4
Total cultivated crops			43.2	60.2	32.1
Alfalfa hay	(A) 184	_____	18.9	24.4	16.7
Red clover hay	(B) 49	_____	4.4	2.7	3.6
Soybean hay	(C) 51	_____	2.1	2.6	2.8
Mixed legumes & non-legumes	(C) 52	_____	3.8	4.8	3.1
Legumes for seed	(C) 4	_____	.4	0	0
Timothy and/or brome	(D) 39	_____	1.8	2.9	.8
Timothy seed	(D) 5	_____	.2	.2	0
Other annual hay	(D) 19	_____	.8	1.7	.6
Total tillable land in hay			32.4	39.3	27.6
Alfalfa pasture	(A) 45	_____	1.6	3.3	1.3
Sweet clover pasture	(B) 45	_____	2.9	3.3	3.2
Mixture inc.alf.,sw.clov.,brome	(B) 42	_____	3.3	5.4	1.7
Other legumes and mixtures	(C) 55	_____	5.5	5.6	1.8
Sudan grass or rape pasture	(C) 67	_____	2.4	3.0	3.0
Other tillable pasture	(D) 85	_____	5.9	6.3	4.0
Total tillable land in pasture			21.6	26.9	15.0
Tillable land not cropped	(D) 64	_____	3.5	1.9	4.6
Total tillable land			165.2	214.0	128.1
Phalaris hay (non-tillable)	20	_____	.9	.8	.7
Wild hay (non-tillable)	71	_____	4.6	7.6	4.2
Non-tillable pasture	165	_____	30.4	34.0	41.6
Timber (not pastured)	88	_____	9.7	6.8	12.2
Roads and waste		_____	9.7	10.7	10.1
Farmstead		_____	6.8	8.9	5.6
Total acres in farm			227.3	282.8	202.5
% land tillable			73.9	77.2	67.6
% tillable land in high return crops			41.0	41.2	41.3

Crop Yields per Acre, 1941

Crop	Your farm	Average 197 farms	39 most profitable farms	39 least profitable farms
Canning peas, value above seed cost \$	_____	\$27.69	\$25.14	\$19.78
Flax, bu.	_____	10.7	10.6	9.1
Barley, bu.	_____	29.0	32.6	24.8
Winter wheat, bu.	_____	10.7	10.5	10.5
Spring wheat, bu.	_____	12.9	13.9	10.0
Oats and barley, bu.	_____	33.8	36.2	32.3
Oats and wheat, bu.	_____	26.9	22.6	29.3
Oats, bu.	_____	31.5	33.8	28.2
Rye, bu.	_____	14.7	17.1	11.4
Soybeans for grain, bu.	_____	13.8	13.2	15.7
<hr/>				
Sweet corn, tons	_____	2.8	2.3	2.6
Corn, grain, bu.	_____	57.6	57.6	56.7
Corn and cane silage, tons	_____	9.9	12.0	8.8
Corn and cane fodder, tons	_____	3.2	2.7	2.6
<hr/>				
Alfalfa hay, tons	_____	2.6	2.7	2.5
Red clover hay, tons	_____	2.2	2.0	2.2
Soybean hay, tons	_____	1.5	1.5	1.6
Mixed legume & non-legume hay, tons	_____	1.7	1.9	1.6
Legumes for seed, lbs.	_____	55.2	-	-
Timothy and/or brome hay, tons	_____	1.3	1.1	1.3
Timothy seed, lbs.	_____	187.3	225.0	-
Other annual hay, tons	_____	1.3	1.1	.7
Phalaris hay on non-tillable land, tons	_____	1.7	1.7	1.7
Wild hay, tons	_____	1.0	.9	.7

Factors of Cost and Returns From Dairy Cows, 1941

	Your farm	Average of 168 farms	34 farms highest in butterfat per cow	34 farms lowest in butterfat per cow
Pounds of butterfat per cow		261	334	185
Feeds per cow, lbs.:				
Corn		768	937	573
Small grain		1247	1538	969
Com. feeds - under 25% protein		67	132	19
Com. feeds - over 25% protein		105	193	47
Legume hay		3742	3955	3042
Other hay		301	193	448
Fodder and stover		318	104	537
Total concentrates		2187	2800	1608
Total dry roughage		4361	4252	4027
Silage		5974	6416	5636
Total digestible nutrients*		4824	5355	4122
T.D.N. per lb. B. F.		19.0	16.2	22.9
% T.D.N. that is protein		14.4	15.5	13.6
Feed cost per cow:				
Concentrates	\$	\$21.19	\$27.96	\$15.03
Roughages		22.58	23.71	19.66
Pasture		5.33	5.17	5.50
TOTAL FEED COSTS		\$49.10	\$56.84	\$40.19
Value of produce per cow:				
B. F. sales	\$	\$99.28	\$128.77	\$66.19
Dairy produce used in house		4.83	4.95	4.80
Milk to livestock		13.61	16.96	11.07
Net increases in value of cows		3.03	3.72	.45
TOTAL VALUE PRODUCED		\$120.75	\$154.40	\$82.51
RETURNS ABOVE FEED COST PER COW	\$	\$71.65	\$97.56	\$42.32
RETURNS FOR \$100 OF FEED	\$	\$251	\$281	\$215
Price received per lb. B. F. sold				
As manufacturing cream (cents)		38.6	38.9	38.6
As mkt. mk. & cm. & mk. for cheese (cts.)		52.7	52.0	56.8
Feed cost per lb. B. F. (cents)		19.2	17.1	22.1
% fall freshening		57.2	63.9	42.7
Number of cows**		18.2	17.6	18.1

* 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, 1941

Items	Your farm	Average of 163 farms*	34 farms highest in butterfat per cow	31 farms lowest in butterfat per cow*
Feeds per head, lbs.:				
Concentrates		474	601	384
Hay and fodder		1776	1815	1705
Silage		2132	2182	2056
Whole milk		381	438	304
Skimmilk		1229	1613	1166
Feed cost per head:				
Concentrates	\$	4.53	\$5.89	\$3.54
Roughages		8.51	9.00	7.64
Milk		8.31	10.08	6.93
Pasture		1.87	1.63	1.92
TOTAL FEED COSTS	\$	\$23.22	\$26.60	\$20.03
Net inc. in value of other dairy cattle		\$35.54	\$44.21	\$29.83
RETURNS ABOVE FEED COST PER HEAD	\$	\$12.32	\$17.61	\$ 9.80
RETURNS FOR \$100 OF FEED	\$	\$166	\$189	\$158
Number of head of other dairy cattle		18.0	17.6	18.4

Feed Costs and Returns From All Dairy Cattle

Items	Your farm	Average of 168 farms	34 farms highest in butterfat per cow	34 farms lowest in butterfat per cow
Feeds per animal unit, lbs.:				
Concentrates		1744	2215	1312
Hay and fodder		4045	4005	3850
Silage		5295	5630	5085
Feed cost per animal unit:				
Concentrates	\$	\$19.51	\$35.15	\$12.25
Roughages		22.38	31.41	18.15
Pasture		5.23	6.85	4.93
TOTAL FEED COSTS	\$	\$47.12	\$73.41	\$35.33
Value of produce per animal unit:				
Dairy products	\$	\$85.64	\$147.13	\$52.74
Net increase in value of dairy cattle		32.16	76.16	17.06
TOTAL VALUE PRODUCED	\$	\$117.80	\$223.29	\$69.80
RETURNS ABOVE FEED PER ANIMAL UNIT	\$	\$70.68	\$149.88	\$34.47
RETURNS PER \$100 OF FEED	\$	\$237	\$270	\$202
Animal units of dairy cattle		27.4	26.9	27.0

*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, 1941

Items	Your farm	Average of 24 farms	8 farms highest in butterfat per cow	8 farms lowest in butterfat per cow
Pounds of butterfat per cow		203	247	157
Feeds per cow, lbs.:				
Corn		667	661	491
Small grain		936	1194	732
Com. feeds - under 25% protein		24	42	2
Com. feeds - over 25% protein		58	22	79
Legume hay		3148	3134	3340
Other hay		318	131	246
Fodder and stover		344	562	246
Total concentrates		1685	1919	1304
Total dry roughage		3810	3827	3832
Silage		4179	3938	4515
Total digestible nutrients*		3899	4014	3687
T.D.N. per lb. B. F.		19.9	16.3	23.9
% T.D.N. that is protein		14.2	13.9	15.0
Feed cost per cow:				
Concentrates	\$	\$15.72	\$17.64	\$13.06
Roughages		18.29	17.62	19.27
Pasture		5.49	5.30	5.34
TOTAL FEED COSTS	\$	\$39.50	\$40.56	\$37.67
Value of produce per cow:				
B. F. sales	\$	\$68.82	\$81.93	\$53.62
Dairy produce used in house		5.65	7.20	3.78
Milk to livestock		14.75	20.35	10.34
Net increases in value of cows		2.29	- .93	2.64
TOTAL VALUE PRODUCED	\$	\$91.51	\$108.55	\$70.38
RETURNS ABOVE FEED COST PER COW	\$	52.01	67.99	32.71
RETURNS FOR \$100 OF FEED	\$	\$237	\$267	\$199
Price received per lb. B. F. sold				
As manufacturing cream (cents)		38.8	38.4	39.2
As mkt. mk. & cm. & mk. for cheese (cts.)		55.0	55.0	-
Feed cost per lb. B. F. (cents)		20.1	16.5	24.3
% fall freshening		48.7	65.4	42.1
Number of cows		15.6	14.3	16.2

*Not including nutrients received from pasture.

Feed Costs and Returns From Other Dual Purpose Cattle, 1941

Items	Your farm	Average of 24 farms	8 Farms highest in returns above feed	8 Farms lowest in returns above feed
Feeds per head, lbs.:				
Concentrates	_____	635	638	730
Hay and fodder	_____	1334	1443	1383
Silage	_____	1507	1068	1668
Whole milk	_____	242	156	224
Skimmilk	_____	1310	1348	1417
Feed cost per head:				
Concentrates	\$ _____	\$5.95	\$5.91	\$7.01
Roughages	_____	6.17	6.07	6.86
Milk	_____	6.73	5.18	6.88
Pasture	_____	1.88	2.10	1.72
TOTAL FEED COSTS	\$ _____	\$20.73	\$19.26	\$22.47
Net increase in value	_____	\$32.59	\$41.93	\$22.95
RETURNS ABOVE FEED COST PER HEAD	\$ _____	\$11.86	\$22.67	\$.48
RETURNS FOR \$100 OF FEED	\$ _____	\$164	\$228	\$103
Number of head	_____	23.1	18.8	21.3

Feed Costs and Returns From All Dual Purpose Cattle

Items	Your farm	Average of 24 farms	8 Farms highest in returns above feed	8 Farms lowest in returns above feed
Feeds per animal unit, lbs.:				
Concentrates	_____	1476	1452	1407
Hay and fodder	_____	3270	3374	3477
Silage	_____	3646	3040	5266
Feed cost per animal unit:				
Concentrates	\$ _____	\$13.79	\$13.22	\$13.98
Roughages	_____	15.54	14.28	18.58
Pasture	_____	4.68	4.59	4.59
TOTAL FEED COSTS	\$ _____	\$34.01	\$32.09	\$37.15
Value of produce per animal unit:				
Dairy products	\$ _____	\$49.32	\$55.64	\$42.31
Net increase in value	_____	23.86	32.54	18.58
TOTAL VALUE PRODUCED	\$ _____	\$73.18	\$88.18	\$60.89
RETURNS ABOVE FEED PER ANIMAL UNIT	\$ _____	\$39.17	\$56.09	\$23.74
RETURNS PER \$100 OF FEED	\$ _____	\$221	\$278	\$168
Animal units	_____	27.6	23.2	30.3

Feed Costs and Returns From Beef Cattle 1941

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:		18	9	9
Feeds per animal unit, lbs.:				
Concentrates	_____	1138	1387	889
Legume hay	_____	1646	1317	1975
Other hay	_____	860	339	1381
Fodder and stover	_____	398	479	316
Silage	_____	2812	3073	2551
Skimmilk*	_____	86	87	85
Wholemilk*	_____	45	49	41
Feed cost per animal unit:				
Concentrates	\$ _____	\$10.57	\$12.38	\$8.76
Roughages	_____	11.97	9.93	14.02
Milk*	_____	.97	.95	.98
Pasture	_____	6.43	5.70	7.15
TOTAL FEED COSTS	\$ _____	\$29.94	\$28.96	\$30.91
Value of produce per animal unit:				
Dairy products	\$ _____	\$ 1.61	\$ 2.40	\$.81
Net increase in value of animals	_____	46.89	65.02	28.76
TOTAL VALUE PRODUCED	\$ _____	\$48.50	\$67.42	\$29.57
RETURNS ABOVE FEED COST PER ANIMAL UNIT	\$ _____	\$18.56	\$38.46	-1.34
RETURNS FOR \$100 OF FEED	\$ _____	\$179	\$241	\$96
Number of cows and herd bulls	_____	13.0	9.3	16.7
Number of Animal Units in the Herd	_____	27.7	26.2	29.1

Feeder cattle: no. of farms:		33	11	11
Feeds per cwt. beef produced. lbs.:				
Corn	_____	632	464	784
Small grain	_____	132	126	167
Com. feeds - under 25% protein	_____	11	3	27
Com. feeds - over 25% protein	_____	24	20	31
Legume hay	_____	214	177	249
Other hay	_____	81	89	81
Fodder and stover	_____	37	20	82
Total concentrates	_____	799	613	1009
Total dry roughages	_____	332	286	412
Silage	_____	514	500	576
Feed cost per cwt. beef produced:				
Concentrates	\$ _____	\$7.32	\$5.67	\$9.31
Roughages	_____	1.61	1.48	1.85
Pasture	_____	.16	.16	.12
TOTAL FEED COSTS	\$ _____	\$9.09	\$7.31	\$11.28
Net increase in value of feeders	\$ _____	\$13.07	\$15.42	\$10.59
RETURNS ABOVE FEED COST PER CWT. BEEF PRODUCED	_____	\$3.98	\$8.11	\$ -.69
RETURNS FOR \$100 OF FEED	\$ _____	\$157	\$217	\$97
Price received per cwt. beef sold in 1941	\$ _____	\$9.72	\$9.29	\$9.77
Price paid for feeder cattle bought in 1941	\$ _____	\$9.80	\$8.64	\$11.01
No. of animal units	_____	19.1	14.3	19.5
Pounds of beef produced	_____	10654	7508	10693

*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.

Feed Costs and Returns from Sheep, 1941

Items	Your farm	Average of all farms	Farms highest in returns above feed	Farms lowest in returns above feed
Native sheep: no. of farms:		61	12	12
Feeds per head,* lbs.:				
Concentrates	_____	68	70	91
Legume hay	_____	189	192	236
Other hay	_____	22	8	19
Fodder and stover	_____	35	61	0
Silage	_____	122	106	137
Feed cost per head:				
Concentrates	\$ _____	\$.62	\$.68	\$.80
Roughages	_____	.95	.93	1.12
Pasture	_____	1.00	1.04	.98
TOTAL FEED COSTS	\$ _____	\$2.57	\$2.65	\$2.90
Value of produce per head:				
Wool	\$ _____	\$2.97	\$3.40	\$3.12
Net increase in value of sheep	_____	5.08	8.24	1.78
TOTAL VALUE PRODUCED	\$ _____	\$8.05	\$11.64	\$4.90
RETURNS ABOVE FEED COST PER HEAD	\$ _____	\$5.48	\$8.99	\$2.00
RETURNS FOR \$100 OF FEED	\$ _____	\$340	\$467	\$196
Value per lamb sold	\$ _____	\$8.72	\$9.74	\$8.11
Price per lb. wool sold (cts.)	_____	40.4	41.0	39.8
Pounds of wool per sheep sheared	_____	8.8	9.1	8.5
Number of ewes kept for lambing	_____	33.0	27.4	19.2
% lamb crop	_____	105.0	113.4	101.0
% death loss	_____	16.4	12.5	21.5
No. of head of sheep*		49.6	42.1	29.3
Feeder sheep: no. of farms		5		
Feeds per cwt. sheep produced, lbs.:				
Concentrates	_____	853		
Legume hay	_____	256		
Other hay	_____	20		
Fodder and stover	_____	105		
Silage	_____	0		
Feed cost per head:				
Concentrates	\$ _____	\$7.71		
Roughages	_____	1.10		
Pasture	_____	.57		
TOTAL FEED COSTS	\$ _____	\$9.38		
Net increase in value of sheep	\$ _____	\$14.66		
RETURNS ABOVE FEED COST PER CWT. PRODUCED	\$ _____	\$5.28		
RETURNS FOR \$100 OF FEED	\$ _____	\$178		
Price per cwt. sheep sold in 1941	\$ _____	\$10.76		
Price per cwt. sheep purchased in 1941	\$ _____	9.68		
% death loss	_____	2.6		
Pounds of sheep produced	_____	3293		

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

Feed Costs and Returns From Hogs and Chickens, 1941

Items	Your farm	Average of all farms	Farms highest returns above feed	Farms lowest returns above feed
Hogs: no. of farms:		190	38	38
Feed per cwt. hogs produced, lbs.:				
Corn	_____	313	244	412
Small grain	_____	138	116	186
Com. feeds - under 25% protein	_____	3	4	4
Com. feeds - over 25% protein	_____	14	12	17
Total concentrates	_____	468	376	619
Skimmilk	_____	262	209	306
Feed cost per cwt. hogs produced:				
Concentrates	\$ _____	\$ 4.54	\$ 3.63	\$ 6.04
Skimmilk	_____	.47	.38	.55
Pasture	_____	.16	.12	.21
TOTAL FEED COSTS	\$ _____	\$ 5.17	\$ 4.13	\$ 6.80
Net increase in value per cwt. hogs prod. \$	_____	\$10.58	\$11.08	\$10.38
RETURNS ABOVE FEED COST PER CWT. HOGS PROD. \$	_____	\$ 5.41	\$ 6.95	\$ 3.58
RETURNS FOR \$100 OF FEED	\$ _____	\$215	\$277	\$156
Price received per cwt. hogs sold	\$ _____	\$9.20	\$9.35	\$9.17
Total no. of litters raised	_____	14.3	14.2	12.1
No. of pigs weaned per litter	_____	6.3	6.4	5.9
% of two-litter system	_____	52.9	53.9	50.8
Pounds of hogs produced	_____	20,974	20,949	16,669
<hr/>				
Chickens: no. of farms:		178	36	36
Feed per hen, lbs.:				
Grain	_____	104	117	100
Commercial feeds	_____	28	37	23
Total concentrates	_____	132	154	123
Skimmilk and buttermilk	_____	26	34	18
Feed cost per hen:				
Concentrates	\$ _____	\$ 1.74	\$ 2.02	\$ 1.64
Skimmilk	_____	.06	.08	.03
TOTAL FEED COST	\$ _____	\$ 1.80	\$ 2.10	\$ 1.67
Value of produce per hen:				
Eggs sold and used in house	\$ _____	\$ 2.59	\$ 3.19	\$ 1.79
Net increase in value of chickens	_____	.87	2.05	.23
TOTAL VALUE PRODUCED	\$ _____	\$ 3.46	\$ 5.24	\$ 2.02
RETURNS ABOVE FEED COST PER HEN	\$ _____	\$ 1.66	\$ 3.14	\$.35
RETURNS FOR \$100 OF FEED	\$ _____	\$ 197	\$ 262	\$ 129
Price rec'd per doz. eggs sold	_____	22.0	23.2	20.7
Eggs laid per hen	_____	142	168	104
No. of hens	_____	218	192	192
% of hens that are pullets	_____	81	87	70

Feed Costs and Returns for Turkeys, 1941

Items	Your farm	Average of 18 farms	9 Farms highest returns above feed	9 Farms lowest returns above feed
Feed per cwt. turkeys produced, lbs.:				
Grain	_____	381	404	358
Com. feeds - under 25% protein	_____	52	53	53
Com. feeds - over 25% protein	_____	155	129	180
Total concentrates	_____	588	586	591
Skimmilk	_____	74	59	90
Feed cost per cwt. turkeys produced	\$ _____	\$9.33	\$9.04	\$9.62
Value of produce per cwt. turkeys prod.				
Eggs and poults	\$ _____	\$1.62	\$3.06	\$.18
Net increases in turkeys	_____	18.43	19.61	17.25
TOTAL VALUE PRODUCED	\$ _____	\$20.05	\$22.67	\$17.43
RETURNS ABOVE FEED COST PER CWT. TURKEYS PRODUCED	\$ _____	\$10.72	\$13.63	\$7.81
RETURNS FOR \$100 FEED	\$ _____	\$219	\$253	\$185
Price rec'd per lb. turkey sold (cts.)	_____	20.6	21.1	20.1
Pounds of turkeys produced	_____	19,819	27,014	12,625

Feed Costs for Horses and Misc. Power and Machinery Expense, 1941

Items	Your farm	Average of 195 farms	39 most profitable farms	39 least profitable farms
Feed per horse* lbs.:				
Grain	_____	1855	1925	1761
Hay	_____	4628	5035	3707
Fodder and stover	_____	472	372	474
Feed costs per horse:				
Grain	\$ _____	\$17.17	\$17.52	\$16.36
Roughage	_____	14.54	16.23	12.58
Pasture	_____	3.78	3.06	4.55
TOTAL FEED COSTS	\$ _____	\$35.49	\$36.81	\$33.49
Number of work horses	_____	4.1	4.6	3.7
Number of colts	_____	.9	.9	.9
Crop acres per farm	_____	147.4	202.6	113.4
Tractor and horse exp. per crop acre	\$ _____	\$2.83	\$2.79	\$3.12
Crop and general mach. exp. per crop acre	\$ _____	1.33	1.28	1.54

*Two colts equal one horse.

Farm Produce Used in House and House Rental, 1941

Items	Your farm	Average 197 farms	39 most profit-able farms	39 least profit-able farms	Your farm	Average 197 farms	39 most profit-able farms	39 least profit-able farms
No. of persons (Family adult equiv. (Other*		3.1	3.6	2.8				
		.9	1.0	.8				
Wholemilk		1230 qts.	1459	1203	\$	\$ 43.94	\$ 51.77	\$ 41.03
Skimmilk		208 qts.	201	84		.82	.77	.49
Cream		254 pts.	296	208		31.58	35.57	26.86
Farm made butter		1 lb.	-	-		.27	.06	.08
Eggs		205 doz.	247	173		42.55	51.30	35.83
Cattle		296 lbs.	352	260		22.19	28.47	17.07
Hogs		541 lbs.	666	393		46.12	58.37	32.31
Sheep		2 lbs.	4	2		.16	.37	.17
Poultry		150 lbs.	123	163		19.65	18.43	21.16
Potatoes		26 bu.	35	19		15.63	21.47	12.24
Vegetables & fruits		-	-	-		36.07	40.55	36.06
Farm fuel		7 cds.	7	8		34.15	33.14	39.96
Rental vl. of house						211.84	264.68	191.14
Misc. (wool, honey, etc)						.10	0	0
Total						\$505.07	\$604.95	\$454.40

Household and Personal Expenses For.
Those Farms Which Kept Complete Accounts of these Expenses, 1941

Items	Your farm	Average of 131 farms	26 most profit-able farms	26 least profit-able farms
Number of persons - family		4.2	5.1	3.4
Number of persons, (Family adult equivalent (Other*		3.2	3.8	2.6
		.9	1.2	.8
Food and meals bought	\$	\$329	\$418	\$306
Operating and supplies		118	135	98
Clothing and clothing materials		159	225	109
Personal care, personal spending		55	67	47
Furnishings and equipment		123	131	136
Education, recreation and development		77	121	60
Medical care and health insurance		92	130	70
Church, welfare, and gifts		94	120	84
Personal share of auto expense		119	123	123
Household share of elect. & gas eng. exp.		41	51	31
H.H. & pers. shr. of new auto, gas eng. & motors bot		75	66	67
Life insurance and other investments		183	356	96
Total household and personal cash expenses		1,465	1,943	1,227
Food furnished by the farm		263	314	241
Fuel furnished by the farm		36	33	48
House rental		206	264	169
Total household and personal expenses		1,970	2,554	1,685

*Hired help or others boarded.

Miscellaneous Information - Averaged by Counties, 1941

Item	Dodge and Mower	Free- born	Good- hue	Nicol- let	Olmsted and Wabasha	Scott Rice and Dakota	Steele	Waseca and LeSueur	Winona
Operator's labor earnings	\$ 4,083	\$ 3,084	\$ 3,036	\$ 2,676	\$ 2,698	\$ 2,643	\$ 3,969	\$ 3,657	\$ 3,493
Av. farm inventory - Jan.1, 1941	23,734	23,264	22,266	23,769	21,677	21,367	24,793	25,742	24,561
Total acres in farm	233	227	231	228	223	198	220	225	275
Total crop acres	159	164	146	159	133	121	138	147	164
% of land tillable	85	74	76	75	74	70	71	71	73
Animal units of productive livestock:	48.3	52.3	39.2	44.9	47.8	40.2	47.6	51.7	53.7
% of animal units that are:									
Dairy & dual purpose cows	38.4	41.8	45.7	37.0	37.7	43.3	40.4	34.9	42.6
Other dual purpose and dairy cattle	22.5	20.3	21.8	21.4	20.2	20.0	21.1	19.4	23.9
Beef breeding herd	2.0	4.1	2.3	4.0	10.0	4.4	2.9	.7	0
Feeder cattle	4.0	3.8	1.9	5.7	3.4	5.6	1.5	5.9	4.7
Farm flock of sheep	4.8	4.2	7.1	1.1	4.3	2.7	4.3	5.4	7.8
Feeder sheep	4.5	0	0	0	0	0	0	.1	0
Hogs	18.9	21.0	12.4	25.9	18.4	14.5	23.1	23.2	12.8
Turkeys	.6	0	1.9	0	2.8	5.0	.5	5.5	5.2
Hens	4.3	4.8	6.9	4.9	3.2	4.5	6.2	4.9	3.0
Crop yields, % of average	104	89	101	89	101	100	112	105	106
% of till. land in high return crops	36.7	37.9	45.3	38.1	38.7	44.7	41.8	45.0	40.6
Index of ret. for \$100 feed to prod. livestock	106	100	106	83	103	109	102	99	102
Productive livestock units per 100 A.	22.8	27.0	20.5	22.8	25.8	23.8	25.2	26.4	25.7
Work units	686	724	646	640	615	589	675	705	732
Work units per worker	329	359	272	284	323	260	291	311	294
Expenses per work unit	\$1.68	\$1.57	\$1.89	\$1.73	\$1.92	\$2.18	\$1.82	\$2.04	\$1.91
Price received per:									
Lb. butterfat sold to creameries (cts.)	38.7	39.1	38.2	38.5	39.0	38.6	39.3	38.1	38.2
Cwt. hogs sold	\$9.37	\$9.39	\$9.04	\$9.13	\$9.19	\$9.01	\$9.46	\$9.06	\$9.30
Doz. eggs sold (cts.)	22.0	22.2	22.0	21.1	21.4	21.5	22.8	22.9	22.6
Yield per acre, corn for grain, bu.	57.7	48.9	59.7	56.5	59.4	55.5	60.1	59.5	64.2
Yield per acre, corn for silage, ton	9.7	8.2	9.2	10.1	9.4	11.4	10.7	9.8	10.3
Yield per acre, barley, bu.	37.3	31.5	26.8	25.5	27.3	27.1	32.9	33.4	31.6
Yield per acre, oats, bu.	37.2	27.9	34.8	23.2	32.3	32.2	35.2	34.7	35.1
Yield per acre, flax, bu.	14.0	5.4	14.3	7.7	13.2	10.1	11.2	11.9	10.6
Yield per acre, alfalfa, tons	2.3	2.4	2.1	2.7	2.8	2.8	3.1	2.6	2.5

Summary by Years

	Average 1928-29	Average 1930-32	Average 1933-35	1936	1937	1938	1939	1940	1941
Number of farms	148	157	126	152	166	122	154	148	197
Acres in farm	170	194	204	207	213	241	225	225	227
Crop acres in farm	116	134	140	138	143	164	147	148	147
Farm inventory	\$24,574	\$21,767	\$17,045	\$20,343	\$20,723	\$22,704	\$20,480	\$24,044	\$24,117

Farm Earnings (See page 29)

FARM EXPENSES

Horses bought	\$ 36	\$ 32	\$ 39	\$ 54	\$ 48	\$ 36	\$ 28	\$ 28	\$ 32
Cattle	141	79	121	182	181	217	299	607	421
Hogs bought	85	69	49	62	77	65	62	60	121
Sheep bought	6	10	65	69	39	110	98	82	45
Poultry bought	37	39	49	73	71	100	95	100	118
Misc. crop expenses	186	177	154	187	215	278	235	182	202
Feed bought	440	324	343	534	627	603	475	600	820
Power mach. (new & exp.) (farm share)	399	340	342	597	654	578	530	604	821
Custom work hired	-	-	-	-	-	-	-	123	115
Machinery and equipment (new)	190	132	139	276	335	330	261	296	470
Machinery and equipment (upkeep)	72	57	55	60	72	78	65	68	90
Building, fencing, tiling (new)	130	98	99	263	246	282	250	352	313
Buildings, fencing, tiling (upkeep)	52	29	41	63	96	114	69	84	164
Hired labor	272	252	261	374	433	519	340	404	454
Taxes and insurance	298	338	269	268	274	322	285	276	280
General farm	30	31	26	28	41	40	36	42	43
Miscellaneous livestock expense	66	72	55	83	83	130	110	78	101
(1) Total farm purchases	2,440	2,079	2,107	3,173	3,492	3,802	3,238	3,986	4,610
(2) Decrease in farm capital	-	755	-	-	-	22	-	-	-
(3) Board furnished hired labor	102	93	91	153	149	174	128	141	145
(4) Interest on farm capital	1,228	1,089	852	1,017	1,036	1,135	1,024	1,202	1,206
(5) Unpaid family labor	358	292	220	247	254	231	236	269	278
(6) Total farm exp. (Sum of (1) to (5))	4,128	4,308	3,270	4,590	4,931	5,364	4,626	5,598	6,239

Summary by Years (Continued)

FARM RECEIPTS

Horses	30	30	32	55	75	51	45	48	31
Cattle	753	467	457	545	754	838	813	1,176	1,215
Dairy products	1,662	1,209	1,207	1,669	1,598	1,509	1,170	1,454	1,720
Hogs	1,164	950	635	1,198	1,204	1,248	926	984	1,778
Sheep and wool	52	39	125	231	147	217	216	162	173
Poultry	140	139	221	364	424	520	344	339	583
Eggs	275	232	305	405	377	378	301	405	523
Corn	37	39	96	177	166	190	142	128	88
Small grain	241	140	272	543	378	244	274	235	262
Other crops	163	170	155	154	177	185	157	250	287
Misc.	134	151	135	226	292	314	231	295	342
Income from work off farm	102	112	132	140	203	219	136	148	146
Agric. Adjustment payments	0	0	204	182	169	223	336	324	331
(7) Total farm sales	4,753	3,678	3,976	5,889	5,964	6,136	5,091	5,948	7,479
(8) Increase in farm capital	617	-	470	1,316	139	-	891	1,017	1,432
(9) Farm prod. used in house + house rental	325	248	227	299	290	252	260	458	505
(10) Total farm receipts	5,695	3,926	4,673	7,504	6,393	6,388	6,242	7,423	9,416
(6) Total farm expenses	4,128	4,308	3,270	4,590	4,931	5,364	4,626	5,598	6,239
(11) Operator's labor earnings	1,567	- 382	1,403	2,914	1,462	1,024	1,616	1,825	3,177

MISCELLANEOUS ITEMS

Yield per acre, corn (bu.)	44.8	43.5	44.5	34.4	43.8	51.7	59.0	56.3	57.6
Yield per acre, barley (bu.)	36.0	30.1	23.5	21.5	30.0	28.2	33.5	41.0	29.0
Yield per acre, oats (bu.)	46.0	48.1	34.8	36.0	48.1	35.9	48.5	58.2	31.5
Yield per acre, alfalfa (tons)	3.0	2.6	2.3	1.9	2.1	2.1	2.2	2.3	2.6
% of till. land in high return crop	31.9	34.1	39.0	41.7	40.9	41.3	40.8	41.4	41.0
Productive livestock units per 100 A.	19.2	20.7	19.9	20.1	19.6	19.7	18.5	23.4	24.6
No. of work units	599	729	756	763	783	866	759	658	664
Work units per worker	310	339	328	341	339	360	349	292	301
Pow., mach., equip., & bldg. exp. per work unit	\$1.76	\$1.34	\$1.18	\$1.31	\$1.44	\$1.44	\$1.41	\$1.66	\$1.87
No. of farms with tractors	80	101	90	122	142	114	134	134	188
No. of work horses	5.4	5.4	5.2	4.8	4.5	4.4	4.1	4.1	4.0
No. of colts	.8	.8	.8	1.2	1.3	1.3	1.1	1.0	.9
No. of dairy and dual purpose cows	14.2	17.1	18.5	18.0	17.6	18.6	17.2	17.1	17.4

Summary by Years (continued)

Miscellaneous items (continued)	Average 1928-29	Average 1930-32	Average 1933-35	1936	1937	1938	1939	1940	1941
No. of litters of pigs	9.3	11.7	8.7	9.2	8.7	11.1	11.5	12.1	13.8
Pounds of hogs produced	12,706	16,219	12,260	12,786	12,770	15,948	16,014	17,671	20,330
No. of head of sheep	7.0	11.5	17.4	19.2	16.3	23.3	16.2	18.6	16.1
No. of hens	136	156	183	183	192	187	177	197	197
Pounds of B. F. per dairy cow	244	241	236	243	232	240	245	260	261
Pounds of B. F. per dual purpose cow	-	-	-	-	-	-	-	181	203
No. of pigs per litter	6.3	6.2	6.1	6.4	6.3	6.7	6.3	6.3	6.3
No. of eggs laid per hen	94.6	111.7	122.3	131.0	130.0	135.0	126.0	131.0	142.0
Price received per									
Lb. B. F. sold	\$.52	\$.30	\$.28	\$.37	\$.39	\$.31	\$.28	\$.33	\$.39
Cwt. hogs sold	8.92	5.82	5.39	9.26	9.47	7.69	6.17	5.27	9.20
Cwt. feeder cattle sold	-	-	-	-	-	-	-	8.67	9.72
Lamb sold	9.78	4.64	5.55	6.95	7.38	6.04	6.48	6.69	8.72
Lb. wool sold	.36	.13	.21	.29	.32	.18	.26	.31	.40
Doz. eggs sold	.28	.17	.16	.20	.19	.18	.15	.17	.22
Lb. turkey sold	-	-	.20	.18	.21	.20	.17	.16	.21
Return above feed cost per:									
Dairy cow	\$76.50	\$28.16	\$32.76	\$62.25	\$52.56	\$47.89	\$45.05	\$58.05	\$71.65
Dual Purpose cow	-	-	-	-	-	-	-	31.69	52.01
Cwt. hogs prod.	1.50	.30	1.82	3.17	2.48	3.47	1.82	1.50	5.41
Head of sheep	5.50	.07	2.24	3.54	3.63	1.28	3.18	3.43	5.48
Hen	1.82	1.13	1.05	1.07	.83	1.12	.97	.92	1.66
Cwt. turkeys prod.	-	-	11.59	5.66	12.53	12.38	8.27	6.30	10.72
Feed cost per:									
Dairy cow	\$69.50	\$52.27	\$43.37	\$43.70	\$51.29	\$40.55	\$38.67	\$43.22	\$49.10
Dual purpose cow	-	-	-	-	-	-	-	36.29	39.50
Cwt. hogs produced	7.66	4.50	4.36	6.27	6.33	3.86	3.51	4.11	5.17
Head of sheep	2.82	2.26	2.59	2.46	2.53	2.37	2.33	2.61	2.57
Hen	1.62	1.09	1.36	1.83	1.82	1.30	1.23	1.36	1.80
Cwt. turkeys prod.	-	-	7.70	10.00	8.32	7.75	7.09	9.06	9.33
Horse	55.09	36.13	37.52	38.60	40.95	29.94	27.61	31.33	35.49
Price of feed sh. corn (per bu.)	\$.70	\$.49	\$.48	\$.72	\$.78	\$.43	\$.36	\$.46	\$.52
Price of feed, barley (per bu.)	.60	.36	.53	.60	.60	.39	.30	.31	.38
Price of feed, oats (per bu.)	.48	.25	.29	.30	.35	.22	.23	.26	.32
Price of feed, bran (per cwt.)	1.70	1.00	1.05	1.30	1.45	1.05	1.10	1.20	1.45
Price of feed, oilmeal (per cwt.)	3.00	2.00	1.85	2.15	2.15	2.30	2.15	1.75	2.00
Price of feed, alfalfa (per ton)	14.75	12.00	10.80	8.00	11.00	7.50	7.00	7.50	8.00

Footnote for pages 26, 27 and 28.

The values of farm real estate in 1931 were reduced approximately 25 per cent from 1928-1930 values. The values in 1932 were reduced about 29 per cent from the 1931 values. Only land was affected by the reduction in 1931, but in 1932 buildings and improvements were cut 25 per cent. In 1936 the values of 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 1941.

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 and \$50 in 1941; and the board for hired labor was figured at \$20 per month in the 1938 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 and \$20 in 1941.

These adjustments should be considered in comparing 1941 results with previous years.

None of the wheat adjustment payments received under A.A.A. contracts were included in farm receipts for 1933. The wheat payments represent remuneration to the producer for adjustments made in 1934 and 1935 and are, therefore, credited in these years. One-half of the total amount that is due for the full period of the contract was credited as income in 1934 and the remaining one-half in 1935. All of the money received or due under the 1934 corn-hog and sugar-beet contracts was credited as income in 1934 even though final payments for 1934 were not made till 1935. Likewise, all of the money received or due under the 1935 corn-hog and sugar-beet contracts was credited as income in 1935, and all the money due as agricultural conservation payments for the years 1936 to 1941 was credited as income in the years 1936 to 1941, respectively.

Several changes appeared in the 1940 and 1941 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.