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

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Annual Report of the Southwestern Minnesota Farm Management Service 1944

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Cooperator: _____

Mimeographed Report of No. 152
Division of Agricultural Economics
University Farm
St. Paul 8, Minnesota
May 1945

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Fourth Annual Report of the Southwest Minnesota Farm Management Service of Cottonwood, Faribault, Jackson, Martin, Murray, Nobles, Redwood, Rock, and Watonwan Counties for the Year 1944

Prepared by T. R. Nodland and G. A. Pond

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INTRODUCTION

The Division of Agricultural Economics and the Division of Agricultural Extension of the University of Minnesota, the Bureau of Agricultural Economics of the United States Department of Agriculture and the county extension services of several southwestern Minnesota counties are cooperating with the Southwest Minnesota Farm Management Association in maintaining a farm management service. The Association was organized in the fall of 1939 by farmers in that part of the state for the purpose of studying the farm business thru farm records. Each farmer pays an annual fee which covers a part of the cost. The balance of the cost is defrayed by the University of Minnesota and the United States Department of Agriculture.

The analysis of the records and the preparation of the reports are handled by the Division of Agricultural Economics under the direction of G. A. Pond and T. R. Nodland. Extension work in connection with the project is handled by S. B. Cleland and J. B. McNulty of the Agricultural Extension Division.

J. R. Burkholder is the field agent for this project. At the end of the year G. E. Toben and S. A. Engene of the Division of Agricultural Economics aided in closing the records. County agricultural extension agents who cooperate in this project include H. J. Vossen, C. G. Gaylord, Fred Geisler, Roland Abraham, S. B. Simpson, A. B. Hagen, C. E. Stower, J. I. Swedberg, C. R. Simon, Wayne Hanson and Ed Kaeder.

The officers for the Southwest Farm Management Association for 1944 were:

President, Robert Soderholm, Reading, Nobles County
Vice-President, Chas. Winzer, Heron Lake, Jackson County
Secretary-Treasurer, Arthur Foster, Garvin, Murray County

The board of directors include these officers and also the following: Walter Schmotzer, Cottonwood County; C. J. Zupp, Faribault County; M. E. Teeter, Martin County; Herbert Johnson, Murray County; Robert Soderholm, Nobles County; Carl Rolland, Redwood County; George Hofelman, Rock County and Clayton Johnson, Watonwan County.

The following tabulation shows by counties the numbers of members who completed records in 1944:

Cottonwood	10	Martin	13	Redwood	24
Faribault	18	Murray	18	Rock	11
Jackson	19	Nobles	38	Watonwan	15
					166

In the tables on page 4 and succeeding pages are shown data for 163 farms. Three farms have been omitted from all of the averages in the tables because they differed widely in type from the others or the records were not sufficiently complete for a full analysis.

TYPE OF FARMING

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

TOPOGRAPHY, SOILS, AND WEATHER

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

The spring of 1944 was cooler and considerably wetter than usual. Weather conditions were very unfavorable for early spring farm activities. The seeding of small grains was seriously delayed and by the end of May some lowlands were still too wet for seeding. A considerable amount of buckwheat and millet was planted in these wet areas. Haying and cultivating were delayed by heavy rains during the latter part of June and early in July. There was some loss from hail storms during July. Weather conditions in August and September were generally favorable for haying, harvesting and maturing corn and other late crops. The months of September and October were very dry. Killing frosts occurred early in October. A considerable amount of corn at harvest time contained excessive moisture for storage.

Table 1. Monthly and Annual Precipitation

	Worthington		Fairmont		New Ulm		Redwood Falls	
	Precipitation	Departure from normal	Precipitation	Departure from normal	Precipitation	Departure from normal	Precipitation	Departure from normal
	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches
January	0.94	+0.31	0.92	+0.12	0.75	-0.38	0.32	-0.62
February	1.35	+0.58	0.98	+0.01	1.10	+0.04	1.14	+0.20
March	0.81	-0.45	0.75	-0.66	1.84	+0.23	0.97	-0.13
April	2.38	+0.30	2.57	+0.34	2.89	+0.70	2.52	+0.27
May	4.83	+0.89	5.91	+1.99	5.37	+1.80	4.58	+1.16
June	5.00	+0.71	6.42	+2.28	5.64	+0.99	4.47	-0.02
July	6.04	+2.65	4.47	+0.91	3.24	-0.44	4.19	+1.15
August	6.90	+3.14	6.33	+2.78	5.34	+1.79	3.40	+0.42
September	2.41	-1.00	1.92	-1.40	2.28	-1.20	1.49	-1.37
October	0.52	-1.17	0.34	-1.51	0.36	-1.80	0.38	-1.29
November	1.56	+0.39	0.65	-0.74	2.34	+1.03	1.34	+0.13
December	0.09	-0.62	0.28	-0.62	0.27	-0.63	0.06	-0.84
1944 Total	32.83	+5.73	31.54	+3.50	31.42	+2.13	24.86	-0.94
1943 Total	33.15	+6.05	36.64	+8.60	41.10	+11.81	31.04	+5.24
1942 Total	33.47	+6.37	25.98	-2.06	29.63	+0.34	21.02	-4.78
1941 Total	28.22	+1.12	32.92	+4.88	34.94	+5.65	26.07	+0.27
1940 Total	22.50	-4.60	28.72	+0.68	36.90	+7.61	25.95	+0.15
1939 Total	24.27	-2.83	21.92	-6.12	23.04	-6.25	18.52	-7.28
1938 Total	40.50	+13.40	39.99	+11.95	29.98	+0.69	26.84	+1.04
Normal Annual Prec.	27.10		28.04		29.29		25.80	

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, who visited each farm in the nine counties several times during the year. In addition to securing the supplementary information, the field agent's duties included numerous services, such as, 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.

Because the farmers included in this study are, in general, above the average in managerial ability and operate larger and more productive farms, they have returns materially higher than the average for this section of the state. There were, nevertheless, wide variations in the methods and practices followed by these men. It is reasonable to assume that similar variations occur among all farmers in the area. To the extent that this is true, this report should be of value to all farmers and to others interested in agriculture in that it illustrates how farm records may be used as a basis for making an analysis of a farm business and for improving the management of a farm.

Table 2. Summary of Farm Inventories, 1944*

Items	Your farm	Average of 163 farms	33 most profitable farms	33 least profitable farms
Size of farm (acres)	_____	268	319	269
Size of business (work units)**	_____	530	663	445
Beginning of Year				
Productive livestock (total)	$_____	$6368	$8029	$6364
Dairy and dual purpose cows	_____	607	631	367
Other dairy & dual pur. cattle	_____	354	359	253
Beef cattle (incl. feeders)	_____	2251	2141	3202
Hogs	_____	2194	2876	1695
Sheep (including feeders)	_____	656	1668	528
Poultry (including turkeys)	_____	306	354	319
Horses	_____	293	288	326
Crop, seed, and feed	_____	4462	6624	3870
Mach. & equipment (total)	_____	3295	3984	2851
Power mach. (f. share)	_____	1176	1390	1003
Crop & gen. mach. (f. share)	_____	1538	1873	1314
Livestock equip. & supplies	_____	581	721	534
Buildings, fences, etc.	_____	7453	8124	6499
Land	_____	14335	17446	13604
Total farm capital	_____	$36206	$44495	$33514
End of Year				
Productive livestock (total)	$_____	$5927	$7480	$5772
Dairy & dual purpose cows	_____	582	615	389
Other dairy & dual pur. cattle	_____	388	477	210
Beef cattle (incl. feeders)	_____	2422	2417	3478
Hogs	_____	1735	2496	1090
Sheep (including feeders)	_____	529	1177	379
Poultry (including turkeys)	_____	271	298	226
Horses	_____	253	262	274
Crop, seeds, and feed	_____	4508	6893	3361
Mach. & equipment (total)	_____	3392	4393	2776
Power mach. (f. share)	_____	1230	1521	960
Crop & gen. mach.	_____	1584	2110	1296
Livestock equipment & supplies	_____	578	762	520
Buildings, fences, etc.	_____	7379	8005	6484
Land	_____	14335	17446	13604
Total farm capital	_____	$35794	$44479	$32271

* For the purpose of comparison all the data shown in this report with the exception of Tables 7 and 8 are presented on a full-owner basis. The assets, expenses and receipts of the landlord were included in the records from rented farms.

**See page 13 for an explanation of "work units".

Table 3. Family Living from the Farm, 1944

Items	Your farm	Average 163 farms	33 most profit-able farms	33 least profit-able farms	Your farm	Average 163 farms	33 most profit-able farms	33 least profit-able farms
No.of pers.(Fam.	____	3.0	2.9	2.9				
adult equiv.(Oth.*	____	.5	.6	.7				
Wholemilk	____	1104 qts.	1048	1055	$____	$57.13	$62.10	$53.93
Skim milk	____	300 qts.	390	327	____	2.48	2.77	4.04
Cream	____	208 pts.	278	204	____	36.86	50.64	36.80
Farm made butter	____	6 lbs.	8	10	____	3.01	3.96	5.11
Eggs	____	164 doz.	185	147	____	50.36	56.49	44.57
Cattle	____	451 lbs.	456	485	____	49.99	52.47	51.81
Hogs	____	515 lbs.	549	573	____	67.79	72.18	75.56
Sheep	____	3 lbs.	6	3	____	.41	.78	.37
Poultry	____	106 lbs.	122	83	____	22.00	24.22	17.75
Potatoes	____	10 bu.	15	7	____	13.40	19.99	9.99
Vegetables & fruits					____	57.20	68.81	45.03
Farm fuel					____	9.82	11.94	5.82
Rental vl. of house					____	201.93	171.15	192.48
Total					____	$572.38	$597.50	$543.26

Table 4. Household and Personal Expenses for Those Farms Which Kept Complete Accounts of These Expenses, 1944

Items	Your farm	Average of 87 farms	17 most profit-able farms	17 least profit-able farms
Number of persons - family	____	4.0	3.7	4.5
Number of persons, (Family	____	3.0	2.8	3.3
adult equivalent (Other*	____	.5	.7	.6
Food and meals bought	$____	$456	$598	$395
Operating and supplies	____	142	120	178
Clothing and clothing materials	____	266	444	224
Personal care, personal spending	____	77	79	103
Furnishings and equipment	____	82	94	67
Education, recreation and development	____	91	140	119
Medical care and health insurance	____	135	169	160
Church, welfare, gifts	____	176	248	122
Income tax	____	292	569	374
Personal share of auto expense	____	47	45	42
Household share of elect. & gas eng. exp.	____	32	34	31
H.H.&pers.shr. of new auto, gas eng.&motors bot.	____	3	7	-
Life insurance and other investments	____	1478	3190	783
Total household and personal cash expenses	____	$3277	$5737	$2598
Food furnished by the farm	____	372	462	372
Fuel furnished by the farm	____	10	11	4
House rental	____	191	186	195
Total household and personal expenses	____	$3850	$6396	$3169

* Hired help or others boarded

Table 5. Summary of Farm Earnings (Cash Statement), 1944

Items	Your farm	Average of 163 farms	33 most profitable farms	33 least profitable farms
FARM EXPENSES				
Dairy and dual-purpose cows bought	$	$ 63	$ 49	$ 107
Other dairy & dual-pur. cattle bot.		49	62	41
Beef cattle bot. (incl. feeders)		1109	1638	1199
Hogs bought		315	544	261
Sheep bought (including feeders)		321	733	136
Poultry bought (including turkeys)		200	326	192
Horses bought		43	36	26
Misc. livestock expense		173	268	135
Misc. crop expenses		582	737	538
Feed bought		2164	2876	1869
Custom work hired		261	384	213
Mech.power mach.(farm share)(new)		337	433	220
Mech.power mach.(farm share)(upkp)		172	198	168
Mech.power (f.share)(gas,oil,etc.)		527	621	474
Crop and general mach. (new)		332	587	216
Crop and general mach. (upkeep)		174	202	155
Livestock equipment (new)		91	159	62
Livestock equipment (upkeep)		78	91	65
Buildings and fencing (new)		297	229	384
Buildings and fencing (upkeep)		192	190	153
Hired labor		651	821	627
Taxes		311	346	282
General farm and insurance		121	131	110
(1) Total farm purchases		$ 8563	$11661	$ 7633
(2) Decrease in farm capital		412	16	1243
(3) Board furnished hired labor		118	150	132
(4) Interest on farm capital		1800	2224	1645
(5) Unpaid family labor		316	346	332
(6) Total farm exp.(Sum of (1) to (5)		$11209	$14397	$10985
FARM RECEIPTS				
Dairy and dual-purpose cows	$	$ 215	$ 219	$ 124
Dairy products		865	895	626
Other dairy & dual-purpose cattle		177	154	147
Beef cattle (including feeders)		2478	3314	2455
Hogs		4671	6790	3472
Sheep and wool (including feeders)		768	1938	444
Poultry (including turkeys)		829	1602	920
Eggs		911	1006	839
Horses		47	32	33
Corn		578	1052	296
Small grain		669	1367	307
Other crops		600	1219	270
Machinery & equip. sold		185	268	144
Agricultural adjustment payments		74	95	72
Income from work off the farm		310	409	200
Misc.		70	72	40
(7) Total farm sales		$13447	$20432	$10389
(8) Increase in farm capital		-	-	-
(9) Family living from the farm		572	598	543
(10) Total farm receipts (7)+(8)+(9)		$14019	$21030	$10932
(6) Total farm expenses		11209	14397	10985
(11) Oper. labor earnings (10)-(6)		2810	6633	-53

Table 6. Summary of Farm Earnings (Enterprise Statement) 1944*

Items	Your farm	Average of 163 farms	33 most profitable farms	33 least profitable farms
EXPENSES AND NET DECREASES				
Total power	$	$ 1107	$ 1283	$ 1065
Horses		183	186	198
Tractor		453	511	436
Truck		92	155	68
Auto (farm share)		216	206	221
Gas engine (farm share)		3	4	4
Elec. plant or current(f.share)		56	66	46
Hired power		104	155	92
Crop and general machinery		414	440	363
Livestock equipment		156	204	132
Buildings, fencing and tiling		436	439	440
Misc. productive livestock expense		171	266	132
Labor		1154	1418	1149
Real estate taxes		252	269	226
Personal property tax		59	77	56
Insurance		41	46	36
General farm		80	85	74
Interest on farm capital		1800	2224	1645
(1) Total expenses & net decreases		5670	6751	5318
RETURNS AND NET INCREASES				
All productive livestock	$	$ 8814	$12496	$ 6861
Dairy and dual purpose cows		987	1112	589
Other dairy & dual pur.cattle		343	419	173
Beef breeding herd		573	599	582
Feeder cattle		1049	1404	1141
Hogs		3963	5937	2681
Sheep - farm flock		120	138	128
Sheep - feeders		202	579	35
Turkeys		398	1052	491
Chickens		1179	1256	1041
Crops, seed and feed		-736	400	-1907
Income from labor off the farm		183	246	119
Agricultural conservation payments		74	95	72
Miscellaneous		145	147	120
(2) Total returns & net increases		8480	13384	5265
(1) Total expenses & net decreases		5670	6751	5318
(3) Oper. labor earnings (2) - (1)		2810	6633	-53

* 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.

Table 7. Net Worth Statement for Those Farmers Who Kept a Complete Record of All Assets and Liabilities*

	Your farm	41 owners	35 part owners**	43 renters***
January 1, 1944				
Total acres in farm	_____	235.7	332.4	248.9
Owned	_____	235.7	207.4	-
Rented	_____	-	125.0	248.9
Total farm capital	$_____	$32737	$33200	$10701
Accounts receivable	_____	609	76	90
Stocks and bonds	_____	1187	1422	1386
Life insurance	_____	586	687	424
Outside real estate	_____	184	1314	128
Other outside investments	_____	86	114	79
Total outside investments	_____	2043	3537	2017
Cash on hand and in bank	_____	974	683	332
Other household & personal assets	_____	972	1256	1007
Total cash, household & pers. assets	_____	1946	1939	1339
Total assets	_____	37335	38752	14147
Federal Land Bank Mortgage	_____	2572	2413	-
Land Bank Commissioner	_____	263	33	-
Other mortg. on land operated	_____	5670	3476	-
Mortgages on other real estate	_____	-	316	-
Production Credit Assoc.	_____	-	877	499
Other chattel mortgages	_____	429	639	502
Notes payable	_____	1193	1105	838
Accounts payable	_____	83	121	164
Total liabilities	_____	10210	8980	2003
Farmer's net worth	_____	27125	29772	12144
December 31, 1944				
Total farm capital	$_____	$32295	$32942	$10691
Accounts receivable	_____	539	43	90
Stocks and bonds	_____	2028	2640	2271
Life insurance	_____	632	746	458
Outside real estate	_____	649	1268	128
Other outside investments	_____	87	113	85
Total outside investments	_____	3396	4767	2942
Cash on hand and in bank	_____	571	615	651
Other household & personal assets	_____	960	1291	975
Total cash, household & pers. assets	_____	1531	1906	1626
Total assets	_____	37761	39658	15349
Federal Land Bank Mortgage	_____	2242	1940	-
Land Bank Commissioner	_____	224	25	-
Other mortg. on land operated	_____	4832	3032	-
Mortgages on other real estate	_____	-	329	-
Production Credit Assoc.	_____	396	1450	611
Other chattel mortgages	_____	431	320	424
Notes payable	_____	1028	1327	748
Accounts payable	_____	129	162	159
Total liabilities	_____	9282	8585	1942
Farmer's net worth	_____	28479	31073	13407
Gain in net worth	_____	+1354	+1301	+1263

*Only operator's share of the assets and liabilities is included.
**14 rented for cash, 9 cash and crop share, and 12 crop share.
***9 farms were rented for cash, 22 cash and crop share, 1 crop share and 11 livestock share.

Table 8. Summary of Farm Earnings by Tenure, 1944

	Your farm	41 owners	35 part-owners	43 renters
FARM EXPENSES				
Dairy and dual-purpose cows bought	$	$ 58	$ 108	$ 40
Other dairy & dual-pur.cattle bought		44	33	66
Beef cattle bot. (incl. feeders)		733	1600	1046
Hogs bought		278	522	194
Sheep bought (including feeders)		194	210	340
Poultry bought (including turkeys)		180	220	145
Horses bought		24	50	55
Misc. livestock expenses		191	170	132
Misc, crop expenses		580	580	467
Feed bought		1896	2470	1606
Custom work hired		191	291	284
Mech. power mach. (farm share) (new)		267	213	468
Mech. power mach. (farm share) (upkp)		171	180	135
Mech. power (f. share)(gas, oil, etc.)		508	566	464
Crop and general mach. (new)		258	372	365
Crop and general mach. (upkeep)		152	198	164
Livestock equipment (new)		72	101	96
Livestock equipment (upkeep)		77	98	72
Buildings and fencing (new)		254	459	26
Buildings and fencing (upkeep)		188	264	28
Hired labor		698	872	430
Taxes (real estate & pers. property)		263	236	45
General farm and insurance		114	139	80
Cash rent		-	294	529
Interest paid		406	326	62
(1) Total farm purchases		$ 7797	$10572	$ 7339
(2) Decrease in farm capital		442	258	10
(3) Board furnished hired labor		127	148	102
(4) Interest on farm capital		1220	1328	473
(5) Unpaid family labor		207	272	263
(6) Total farm exp. (Sum of (1) to (5)		$ 9793	$12578	$ 8187
FARM RECEIPTS				
Dairy and dual-purpose cows	$	$ 144	$ 184	$ 173
Dairy products		978	798	611
Other dairy and dual-purpose cattle		195	147	126
Beef cattle (including feeders)		2129	3143	2028
Hogs		4406	5448	3041
Sheep and wool (including feeders)		458	656	655
Poultry (including turkeys)		634	879	736
Eggs		881	1007	802
Horses		37	17	40
Corn		303	490	233
Small grain		411	782	483
Other crops		450	617	453
Machinery & equip. sold		111	215	174
Agricultural adjustment payments		83	63	69
Income from work off the farm		340	361	283
Misc.		101	69	49
(7) Total farm sales		$11661	$14876	$ 9956
(8) Increase in farm capital		-	-	-
(9) Family living from the farm		552	595	512
(10) Total farm receipts (7)+(8)+(9)		$12213	$15471	$10468
(6) Total farm expenses		9793	12578	8187
(11) Operator's labor earnings (10)-(6)		2420	2893	2281
(12) Ret.cap. & fam.lab. (4)+(5)+(11)		3847	4493	3017

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 $6,633 and of those in the lower 20 per cent was $-53. This is a range of $6,686 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.

Table 9. Relation of Crop Yields to Farm Earnings

Per cent crop yields were of the average for all 163 farms		No. of farms	Average operator's labor earnings
Group	Average		
Below 86	76	43	$1247
86-113	100	82	3207
114 and above	129	38	3725

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 10. 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 47.0	40.1	33	$1667
47.0-61.9	53.7	95	2968
62.0 & above	68.8	35	3460

*Crops are marked on page 16 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.

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

Table 11. Relation of Returns from Productive Livestock to Farm Earnings

Index of returns for $100 feed fed to productive livestock* Group	Average	No. of farms	Average operator's labor earnings
Below 82	73	30	$1426
82-115	98	104	3024
116 and above	136	29	3475

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

The majority of these farms are livestock farms. A large proportion of the crops raised are fed on the farm and some additional feed is purchased. Feed is the major item of cost in livestock production and livestock constitutes an important source of income on these farms. Hence there is a marked relationship between returns for $100 of feed and operator's labor earnings on these farms. There are a number of reasons for differences among farms in livestock returns. High productivity per animal and economy in the use of feed and labor are important. Other factors of considerable importance are kind of feed used, quality of pastures, balance of ration, degree of sanitation, and kind of shelter and equipment.

Table 12. Relation of Amount of Productive Livestock to Farm Earnings

Productive livestock units per 100 acres* Group	Average	No. of farms	Average operator's labor earnings
Below 17.0	12.9	39	$2380
17.0-27.9	21.6	74	2661
28.0 and above	34.1	34	3527

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

The amount of livestock was less important in 1944 than in 1943. Sixteen highly specialized crop farms with more than 50 per cent of the total work units expended on crops were omitted from the averages in Table 13. The amount of livestock is an important factor only on livestock farms.

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 13. Relation of Size of Business (Work Units) to Farm Earnings

No. of work units Group	Average	No. of farms	Average operator's labor earnings
Below 350	310	35	$1498
350-699	507	98	2744
700 and above	888	30	4716

The size of the farming operations is one of the important factors affecting the earnings of farmers. On the average, the farmers with a large business had larger earnings than the farmers with a small business. The size of the farm business is here measured in terms of the number of work units. For farmers operating their farms at a loss, the larger the volume of business, the larger will be the loss; but a farmer who is making a profit could make a larger profit if he increased his size of business, providing that in so doing he does not lower materially the efficiency in some one or more important branches of his business. Those farmers who have large businesses usually have more flexibility of their organization than does the man with a small business, and can utilize more efficiently and to better advantage available labor, power, machinery and buildings. The size of the farm business may be increased by farming more land, by keeping more livestock, or by keeping livestock or growing crops of a more intensive type.

Table 14. Relation of Amount of Work Accomplished per Worker to Farm Earnings

Work units per worker		No. of	Average operator's
Group	Average	farms	labor earnings
Below 230	194	34	$1397
230-334	280	97	2738
335 and above	393	32	4530

Farmers' earnings are generally higher on those farms on which a large amount of work is accomplished per worker. 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 15. Relation of Power, Machinery, Equipment and Building Expense to Farm Earnings*

Expense per work unit		No. of	Average operator's
Group	Average	farms	labor earnings
$5.25 and above	$6.13	34	$1492
$3.25-$5.24	4.12	95	2913
Below $3.25	2.55	34	3843

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

Some of the cash expenses can be kept down by careful management. Oftentimes necessary repairs and improvements can be made by using the available farm labor rather than by hiring extra help. Repairs and overhauling should be done before spring work begins insofar as possible; or on rainy days or in other spare time during the summer. Reducing the number of horses to the minimum required for efficient operation of the farm helps reduce the power expense. In some cases farmers can offset some or all of the power and machinery expense by using their equipment for outside work.

EFFECT OF WELL-BALANCED EFFICIENCY ON FARM PROFITS

It is quite evident from this report that few farmers have a monopoly on efficiency. Quite often farm operators show efficient management in one part of the farm business, which is offset by poor results in other phases. These farmers get medium returns while those who fall down all along the line get the lowest returns; and on the other hand those few who can manage to attain high efficiency in all parts of their organization receive returns well above the average. This is well illustrated in Table 16.

Table 16. 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 is in proportion to the average operator's labor earnings	Average operator's labor earnings
None or one	32		xxxxxx	$979
Two	24		xxxxxxxxxxxx	2090
Three	35		xxxxxxxxxxxxxxxx	2713
Four	27		xxxxxxxxxxxxxxx	2705
Five	25		xxxxxxxxxxxxxxxxxxx	3698
Six	16		xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	5653
Seven	4		xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	6440

EXPLANATION OF "WORK UNITS"

The total "work units" for any one farm is a measure of the size of that farm business. A work unit as used in this report is the average accomplishment of a farm worker in a ten hour day working on crops and productive livestock at average efficiency or ten hours of work off the farm for pay. The number of work units for each class of livestock and each acre of crop are presented in Table 17.

Table 17. Number of Work Units for Each Class of Livestock and Each Acre of Crop

Item	No. of work units	Item	No. of work units
Dairy and dual pur. cows	13.5 per cow	Small grain	.7 per acre
Other dairy & du.pur.cattle	4.0 per an.unit*	Sugar beets	3.0 per acre
Beef breeding herd	4.0 per an.unit*	Sweet corn	2.3 per acre
Feeder cattle	.35 per 100 lbs.	Corn, husked	1.0 per acre
Sheep - farm flock	1.6 per an. unit*	Corn, hogged	.6 per acre
Sheep - feeders	.4 per 100 lbs.	Corn, shredded	2.1 per acre
Hogs	.25 per 100 lbs.	Corn silage	1.7 per acre
Turkeys	.7 per 100 lbs.	Corn fodder	.9 per acre
Hens	26.0 per 100 hens	Alfalfa hay	1.0 per acre
Canning peas	2.0 per acre	Soybean hay	1.4 per acre
Soybeans for grain	.9 per acre	Other hay crops	.6 per acre

* 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 1400 pounds of turkeys produced.

Table 18. Measures of Farm Organization and Management Efficiency, 1944

Measures used in chart on page 15	Your farm	Average of 163 farms	33 most profit-able farms	33 least profit-able farms
Operator's labor earnings	$_____	$2810	$6632	$ -53
(1) Crop yields*	_____	100	114	83
(2) % of tillable land in high ret. crops**	_____	54.2	56.2	48.0
(3) Ret. for $100 feed to prod. livestock***	_____	100	109	91
(4) Prod. livestock units per 100 acres****	_____	21.4	21.6	20.9
(5) Size of business - work units	_____	530	663	445
(6) Work units per worker	_____	279	316	234
(7) Pow.,mach.,equip.,& bldg.exp.per work unit	$_____	$4.20	$3.76	$4.65
Items related to some of the above measures:				
(3) Index of return for $100 feed from -				
Dairy cattle (See pages 20 & 21)	_____	100	116	98
Dual-purpose cattle (See pp. 22 & 23)	_____	100	109	83
Beef cattle - breeding herd (See p.26)	_____	100	112	95
Beef cattle - feeders (See page 25)	_____	100	125	98
Hogs (See page 19)	_____	100	115	87
Sheep - farm flock (See page 28)	_____	100	74	91
Sheep - feeders (See page 29)	_____	100	131	-
Turkeys (See page 26)	_____	100	104	-
Chickens (See page 27)	_____	100	105	101
(5) Work units on crops	_____	181	229	162
Work units on productive livestock	_____	312	384	258
Other work units	_____	37	50	25
(6) Total number of workers	_____	1.9	2.1	1.9
Number of family workers	_____	1.3	1.3	1.3
Number of hired workers	_____	.6	.8	.6
(7) Power expense per work unit	$_____	$2.20	$2.05	$2.49
Crop machinery expense per work unit	_____	.83	.70	.84
Livestock equip. expense per work unit	_____	.32	.31	.31
Bldgs. & fencing exp. per work unit	_____	.85	.70	1.01

*Given as a percentage of the average.

**Crops are marked in Table 19 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 14, locate your standing with respect to the various measures of farm organization and management efficiency. The averages for the 163 farms included in this summary are located between the dotted lines across the center of this page.

Oper. labor earnings	Crops yields	High return crops	Return from productive livestock	Pr. l.s. units per 100 A.	Work units	Work units per worker	Pow., mach., eq., & bldg. exp. per work unit
$7600	140	78.0	140	37.5	850	440	$1.80
7000	135	75.0	135	35.5	810	420	2.10
6400	130	72.0	130	33.5	770	400	2.40
5800	125	69.0	125	31.5	730	380	2.70
5200	120	66.0	120	29.5	690	360	3.00
4600	115	63.0	115	27.5	650	340	3.30
4000	110	60.0	110	25.5	610	320	3.60
3400	105	57.0	105	23.5	570	300	3.90
2800	100	54.0	100	21.5	530	280	4.20
2200	95	51.0	95	19.5	490	260	4.50
1600	90	48.0	90	17.5	450	240	4.80
1000	85	45.0	85	15.5	410	220	5.10
400	80	42.0	80	13.5	370	200	5.40
-200	75	39.0	75	11.5	330	180	5.70
-800	70	36.0	70	9.5	290	160	6.00
-1400	65	33.0	65	7.5	250	140	6.30

Table 19. Distribution of Acres in Farm, 1944

Crop: (A) (B) (C) and (D) refer to ranking used in calculating % of tillable land in High Return Crops (see page 14)		No. growing this crop	Your farm	Average of 163 farms	33 most profit-able farms	33 least profit-able farms
Canning peas	(A)	7	_____	.5	1.4	-
Flax	(C)	97	_____	15.2	22.3	11.4
Barley	(D)	9	_____	.8	1.0	1.3
Wheat	(D)	9	_____	.4	.8	.1
Oats	(D)	156	_____	39.3	51.1	30.9
Soybeans for grain	(D)	55	_____	6.3	12.4	5.5
Rye	(D)	3	_____	.2	.5	-
Millet	(D)	33	_____	3.1	2.1	2.8
Buckwheat	(D)	7	_____	.8	2.2	.3
Total Small Grain, Peas & Soybeans		159	_____	66.6	93.8	52.3
Sugar beets, hybrid seed corn, potatoes and truck crops	(A)	28	_____	1.3	2.3	1.3
Corn grain	(A)	163	_____	82.8	108.0	67.2
Corn or sorghum silage	(B)	90	_____	7.8	5.9	9.9
Sweet corn	(B)	11	_____	1.4	2.8	2.0
Corn or sorghum fodder	(D)	41	_____	2.1	1.8	3.3
Total cultivated crops		163	_____	95.4	120.8	83.7
Alfalfa hay	(A)	140	_____	16.4	20.5	13.0
Soybean hay	(C)	41	_____	1.7	1.1	1.8
Mixed legumes & non-legumes	(C)	37	_____	3.5	4.7	6.8
Legumes for seed	(C)	4	_____	.4	-	-
Timothy and/or brome for hay or seed	(D)	23	_____	1.3	.2	1.3
Other annual hay	(D)	22	_____	1.8	.1	4.9
Total tillable land in hay		160	_____	25.1	26.6	27.8
Alfalfa and mixtures incl. alfalfa	(A)	75	_____	5.6	4.1	3.1
Sweet clover pasture	(B)	21	_____	2.7	5.5	1.8
Other legumes and mixtures	(C)	35	_____	5.0	5.3	3.1
Sudan grass and/or rape	(C)	27	_____	1.3	2.0	.9
Other tillable pasture	(D)	77	_____	6.7	8.1	7.7
Total tillable land in pasture		139	_____	21.3	25.0	16.6
Tillable land not cropped	(D)	91	_____	13.7	9.7	24.9
Total tillable land			_____	222.1	275.9	205.3
Wild or phalaris hay (non-tillable)		60	_____	4.2	3.3	7.2
Non-tillable pasture		97	_____	22.6	18.7	38.5
Roads, waste and timber			_____	10.9	12.7	9.4
Farmstead			_____	8.6	8.6	8.5
Total acres in farm			_____	268.4	319.2	268.9
% land tillable			_____	83.8	86.9	81.3
% tillable land in high return crops			_____	54.2	56.2	47.8

Table 20. Crop Yields per Acre, 1944

Crop	Your farm	Average of 163 farms	33 most profitable farms	33 least profitable farms
Canning peas, value above seed cost	$ _____	$21.94	$23.52	$ -
Flax, bu.	_____	6.0	6.9	4.3
Barley, bu.	_____	18.8	14.5	-
Wheat, bu.	_____	12.4	19.0	-
Oats, bu.	_____	36.3	43.0	30.7
Soybeans for grain, bu.	_____	18.5	18.9	16.1
Rye, bu.	_____	7.4	-	-
Millet, bu.	_____	13.6	10.5	11.2
Buckwheat, bu.	_____	13.4	-	-
Corn grain, bu.	_____	49.6	54.9	42.4
Corn or sorghum silage, tons	_____	7.5	8.2	5.7
Sweet corn, tons	_____	2.7	-	1.8
Corn or sorghum fodder, tons	_____	1.9	2.2	1.8
Alfalfa hay, tons	_____	2.0	2.2	1.6
Soybean hay, tons	_____	1.4	1.6	1.2
Mixed legume & non-legume hay, tons	_____	1.7	1.5	1.6
Legumes for seed, lbs.	_____	104	-	-
Timothy and/or brome hay, tons	_____	1.3	-	1.3
Timothy seed, lbs.	_____	119	-	-
Other annual hay, tons	_____	1.0	-	1.0
Phalaris hay on non-tillable land, tons	_____	1.0	-	-
Wild hay, tons	_____	.9	1.2	.8

Table 21. Average Price of Feeds, 1944

Item	Value	Item	Value
Ear corn, per bu.	$ .90	Alfalfa hay, per ton	$15.00
Oats, per bu.	.70	Red or alsike clover hay, per ton	12.75
Barley, per bu.	.92	Soybean hay, per ton	12.75
Wheat, per bu.	1.35	Timothy hay, per ton	9.00
Soybeans, per bu.	1.93	Brome hay, per ton	9.00
Bran, per cwt.	2.20	Sweet clover hay, per ton	8.75
Linseed oilmeal, per cwt.	2.85	Wild hay, per ton	7.50
Soybean oilmeal, per cwt.	3.15	Corn fodder, per ton	6.75
Tankage, per cwt.	4.18	Corn silage, per ton	5.00
Skim milk, per cwt.	.26	Pasture, per mo. per an. unit	1.10

Table 24. Feed Costs and Returns from Hogs, 1944

Items	Your farm	Average of 159 farms	32 farms highest in returns above feed	32 farms lowest in returns above feed
Feed per cwt. hogs produced, lbs.:				
Corn	_____	435	311	626
Small grain	_____	73	48	119
Com. feeds - under 25% protein	_____	8	4	15
Com. feeds - over 25% protein	_____	27	26	31
Total concentrates	_____	543	389	791
Skim milk and buttermilk	_____	71	48	96
Feed cost per cwt. hogs produced:				
Concentrates	$_____	$10.00	$7.26	$14.61
Skim milk and buttermilk	_____	.17	.13	.23
Pasture	_____	.15	.13	.18
TOTAL FEED COSTS	$_____	$10.32	$7.52	$15.02
Net increase in val. per cwt.hogs prod.	$_____	$13.63	$14.29	$13.16
RETURNS ABOVE FEED COST PER CWT.HOGS PROD.	$_____	$3.31	$6.77	$-1.86
RETURNS FOR $100 OF FEED	$_____	$142	$194	$91
Price received per cwt. hogs sold	$_____	$13.12	$13.58	$12.78
No. of spring litters raised	_____	13.4	11.4	11.6
No. of fall litters raised	_____	3.8	3.9	2.0
Total no. of litters raised	_____	17.2	15.3	13.6
No. of pigs born per litter	_____	7.5	7.7	6.6
No. of pigs weaned per litter	_____	5.9	6.0	5.1
Pounds of hogs produced	_____	29797	29353	19221

High returns are associated with high quality management. The combined effect on return over feed from excelling in a number of hog management factors is shown in Table 25. The factors included are: (1) pounds of concentrates required to produce 100 pounds of hogs including skimmilk and buttermilk on a grain equivalent basis, (2) price received for hogs sold, (3) number of pigs born per litter, (4) number of pigs weaned per litter, and (5) sanitation (pigs raised on clean ground). Eighteen farmers were below the average of the group in all five factors; their average return over feed was $-3.92 per 100 pounds of hogs. The 4 farmers who were above average in all five factors had an average return over feed of $5.56 per 100 pounds. The difference between the two extremes amounts to $9.48 per 100 pounds or $2825 for the average production of 29,797 pounds of hogs on these farms.

Table 25. Relation of Return Over Feed per 100 Pounds of Hogs to the Number of Management Factors in Which Farmers Excelled

No. of factors in which farmer excels	No. of farms*	The length of the shaded lines is in proportion to the average return over feed per 100 pounds of hogs	Average return over feed
0	18	xxxxxxxxxxxxx	$-3.92
1	27	xxxxxxxx	2.28
2	36	xxxxxxxxxxxx	3.61
3	32	xxxxxxxxxxxxxxxx	4.69
4	27	xxxxxxxxxxxxxxxx	4.82
5	4	xxxxxxxxxxxxxxxxxxx	5.56

* The data from 15 farmers who purchased feeder pigs or who did not supply information on sanitation practices were omitted from this table.

Table 26. Factors of Cost and Returns from Dairy Cows, 1944

	Your farm	Average of 65 farms	13 farms highest in butterfat per cow	13 farms lowest in butterfat per cow
Pounds of butterfat per cow	_____	226	322	138
Feeds per cow, lbs.:				
Corn	_____	1543	1849	1161
Small grain	_____	620	959	184
Com. feeds - under 25% protein	_____	41	133	-
Com. feeds - over 25% protein	_____	103	145	20
Legume hay	_____	3718	4359	3216
Other hay	_____	277	369	494
Fodder and stover	_____	230	255	142
Total concentrates	_____	2307	3086	1365
Total dry roughage	_____	4225	4983	3852
Silage	_____	3661	4326	3399
Total digestible nutrients*	_____	4475	5434	3616
T. D. N. per lb. B.F.	_____	19.8	16.8	26.2
% T. D. N. that is protein	_____	14.8	15.7	14.2
Feed cost per cow:				
Concentrates	$_____	$43.91	$60.06	$24.14
Roughages	_____	38.36	45.43	34.95
Pasture	_____	5.77	5.87	6.25
TOTAL FEED COSTS	_____	$88.04	$111.36	$65.34
Value of produce per cow:				
B.F. Sales	$_____	$125.72	$198.84	$57.88
Dairy produce used in house	_____	12.53	9.95	17.79
Milk to livestock	_____	16.18	20.88	10.76
Net increases in value of cows	_____	3.07	5.33	4.55
TOTAL VALUE PRODUCED	_____	$157.50	$235.00	$90.98
RETURNS ABOVE FEED COST PER COW	$_____	$69.45	$123.64	$25.64
RETURNS FOR $100 OF FEED	$_____	$189	$228	$161
Price rec. per lb. B.F. sold (cts.)	_____	61.8	67.2	57.6
As manufacturing cream (cents)	_____	58.2	60.2	57.6
Other	_____	84.3	83.7	-
Feed cost per lb. B.F. (cents)	_____	39.0	34.6	47.3
% fall freshening	_____	39.3	47.7	32.4
Number of cows**	_____	11.1	13.7	8.4

* Not including nutrients received from pasture.

** All dairy cows which have at some time in the past freshened are included in the dairy herd, and affect the average number of cows used in computing this table. There is some variation in the number of months of dry period per cow; however, this variation is small for the majority of farms.

Table 27. Feed Costs and Returns from Other Dairy Cattle, 1944

Items	Your farm	Average of 61 farms*	13 farms highest in butterfat per cow	11 farms lowest in butterfat per cow*
Feeds per head, lbs.:				
Concentrates	_____	666	1017	587
Hay and fodder	_____	1331	1643	1396
Silage	_____	1262	1602	1511
Skim milk	_____	964	1445	569
Whole milk	_____	427	458	215
Feed cost per head:				
Concentrates	$_____	$12.94	$19.37	$10.80
Roughages	_____	12.05	15.16	13.32
Milk	_____	11.11	13.36	6.19
Pasture	_____	2.03	1.58	2.22
TOTAL FEED COSTS	$_____	$38.13	$49.47	$32.53
Net inc. in value of other dairy cattle	_____	$45.54	$58.72	$38.58
RETURNS ABOVE FEED COST PER HEAD	$_____	$7.41	$9.25	$6.05
RETURNS FOR $100 OF FEED	$_____	$126	$117	$119
Number of head of other dairy cattle	_____	13.7	16.9	11.7

Table 28. Feed Costs and Returns from All Dairy Cattle, 1944

Items	Your farm	Average of 65 farms	13 farms highest in butterfat per cow	13 farms lowest in butterfat per cow
Feeds per animal unit, lbs.:				
Concentrates	_____	1928	2601	$1346
Hay and fodder	_____	3548	4187	3432
Silage	_____	3266	3916	3140
Feed cost per animal unit:				
Concentrates	$_____	$36.83	$50.28	$24.38
Roughages	_____	32.49	38.92	31.33
Pasture	_____	5.11	4.84	5.53
TOTAL FEED COSTS	$_____	$74.43	$94.04	$61.24
Value of produce per animal unit:				
Dairy products	$_____	$92.63	$133.13	$53.00
Net incr.in value of dairy cattle	_____	31.29	44.17	28.92
TOTAL VALUE PRODUCED	$_____	$123.92	$177.30	$81.92
RETURNS ABOVE FEED PER ANIMAL UNIT	$_____	$49.49	$83.26	$20.68
RETURNS PER $100 OF FEED	$_____	$174	$204	$139
Animal units of dairy cattle	_____	18.0	22.6	13.6

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

Table 29. Factors of Cost and Returns from Dual Purpose Cows, 1944

Items	Your farm	Average of 38 farms	9 farms highest in butterfat per cow	9 farms lowest in butterfat per cow
Pounds of butterfat per cow	_____	172	221	132
Feeds per cow, lbs.:				
Corn	_____	1278	1297	902
Small grain	_____	412	524	393
Com. feeds - under 25% protein	_____	13	-	6
Com. feeds - over 25% protein	_____	21	8	10
Legume hay	_____	3100	3338	2003
Other hay	_____	110	88	192
Fodder and stover	_____	206	293	-
Total concentrates	_____	1724	1829	1311
Total dry roughage	_____	3416	3719	2195
Silage	_____	2830	3372	3541
Total digestible nutrients*	_____	3579	3980	2718
T.D.N. per lb. B.F.	_____	20.8	18.0	20.6
% T.D.N. that is protein	_____	14.0	14.1	13.0
Feed cost per cow:				
Concentrates	$_____	$31.75	$34.06	$24.42
Roughages	_____	30.32	33.25	23.54
Pasture	_____	5.95	6.45	5.41
TOTAL FEED COSTS	$_____	$68.02	$73.76	$53.37
Value of produce per cow:				
B.F. sales	$_____	$75.04	$92.15	$57.47
Dairy produce used in house	_____	16.03	21.92	12.03
Milk to livestock	_____	16.50	21.63	13.04
Net increases in value of cows	_____	6.46	6.00	2.05
TOTAL VALUE PRODUCED	$_____	$114.03	$141.70	$84.59
RETURNS ABOVE FEED COST PER COW	$_____	$46.01	$67.94	$31.22
RETURNS FOR $100 OF FEED	$_____	$176	$201	$158
Price recd. per lb. B.F. sold (cts.)	_____	57.0	57.1	55.6
Feed cost per lb. B.F. (cents)	_____	39.5	33.4	40.4
% fall freshening	_____	33	42	14
Number of cows	_____	8.0	5.9	10.1

* Not including nutrients received from pasture.

Table 30. Feed Costs and Returns from Other Dual-Purpose Cattle, 1944

Items	Your farm	Average of 28 farms*	7 farms highest in returns above feed	7 farms lowest in returns above feed
Feeds per head, lbs.:				
Concentrates	_____	906	849	1118
Hay and fodder	_____	1169	803	1456
Silage	_____	899	602	1740
Skim milk	_____	879	1033	744
Whole milk	_____	322	303	488
Feed cost per head:				
Concentrates	$_____	$16.72	$15.28	$21.02
Roughages	_____	9.90	6.38	14.71
Milk	_____	9.50	9.73	12.49
Pasture	_____	2.89	2.78	3.03
TOTAL FEED COSTS	$_____	$39.01	$34.17	$51.25
Net increase in value	$_____	$42.75	$61.32	$31.52
RETURNS ABOVE FEED COST PER HEAD	$_____	$3.74	$27.15	$-19.73
RETURNS FOR $100 OF FEED	$_____	$119	$187	$60
No. of head of other dual-purpose cattle	_____	14.5	11.4	15.7

Table 31. Feed Costs and Returns from All Dual-Purpose Cattle, 1944

Items	Your farm	Average of 38 farms	9 farms highest in returns above feed	9 farms lowest in returns above feed
Butterfat per cow	_____	172	197	145
Feeds per animal unit, lbs.:				
Concentrates	_____	1732	1849	1788
Hay and fodder	_____	2913	2349	2678
Silage	_____	2715	2543	5662
Feed cost per animal unit:				
Concentrates	$_____	$31.87	$33.80	$34.33
Roughages	_____	25.78	23.13	30.66
Pasture	_____	5.79	5.28	6.28
TOTAL FEED COSTS	$_____	$63.44	$62.21	$71.27
Value of produce per animal unit:				
Dairy products	$_____	$65.24	$99.70	$45.58
Net increase in value	_____	32.13	28.81	25.47
TOTAL VALUE PRODUCED	$_____	$97.37	$128.51	$71.05
RETURNS ABOVE FEED PER ANIMAL UNIT	$_____	$33.93	$66.30	$-.22
RETURNS FOR $100 OF FEED	$_____	$160	$211	$99
Animal units of dual-purpose cattle	_____	13.6	10.1	19.7

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

The farmer who excels in all phases of the management of his dairy cows receives a larger return than one who excels in none or only a few of the management factors. The combined effect on return over feed per dairy cow from excelling in a number of management factors is shown in Table 32. The factors included are (1) pounds of butterfat per cow, (2) total digestible nutrients per pound of butterfat, (3) percentage of protein in the T.D.N., (4) price received for butterfat, (5) feed cost per pound of butterfat, and (6) percentage of fall freshening. Seven farmers were below the average of the group in all six factors; their return over feed amounted to $9.25 per cow. Eleven farmers who were above the average of the group in either five or six factors received a return over feed of $117.24 per cow. The difference between these two extremes amounts to $107.99 per cow or $1199 for the average herd of 11.1 cows.

Table 32. Relation of Return Over Feed per Dairy Cow to Number of Management Factors in Which Farmers Excelled

No. of factors in which farmer excels	No. of farms	The length of the shaded lines is in proportion to the average return over feed per dairy cow	Average return over feed
0	7	xx	$ 9.25
1	4	xxxxxxxx	33.62
2	16	xxxxxxxxxxxxxxx	61.74
3	16	xxxxxxxxxxxxxxxx	64.20
4	11	xxxxxxxxxxxxxxxxxxxx	89.10
5 or 6	11	xxxxxxxxxxxxxxxxxxxxxxxxxxxxx	120.17

Similar variations occur in the returns secured from dual purpose cows. The data in Table 33 show the combined effect from excelling in the six factors listed above. The 6 farmers who were below the average of the group in all six factors or excelled in only one factor received a return over feed cost per cow of $28.31. Nine farmers who excelled in four or five factors received a return of $75.43 per cow. The difference between these two extremes amounts to $47.12 per cow or $377 for the average milking herd of 8 cows.

Table 33. Relation of Return Over Feed per Dual Purpose Cow to Number of Management Factors in Which Farmers Excelled

No. of factors in which farmer excels	No. of farms	The length of the shaded lines is in proportion to the average return over feed per dual purpose cow	Average return over feed
None or 1	6	xxxxxxxxxxx	$28.31
2 or 3	23	xxxxxxxxxxxxxxxx	39.14
4 or 5	9	xxxxxxxxxxxxxxxxxxxxxxxxxxxxx	75.43

Table 34. Feed Costs and Returns from Feeder Cattle, 1944

Items	Your farm	Average of 77 farms	15 farms highest in returns above feed	15 farms lowest in returns above feed
Feeds per cwt. beef produced, lbs.:				
Corn	_____	609	420	665
Small grain	_____	17	17	9
Com. feeds - under 25% protein	_____	6	3	20
Com. feeds - over 25% protein	_____	26	13	13
Legume hay	_____	257	217	355
Other hay	_____	56	49	70
Fodder and stover	_____	34	26	28
Total concentrates	_____	658	453	707
Total dry roughages	_____	347	292	453
Silage	_____	410	348	793
Feed cost per cwt. beef produced:				
Concentrates	$_____	$11.52	$8.02	$11.75
Roughages	_____	3.22	2.74	4.92
Pasture	_____	.32	.43	.44
TOTAL FEED COSTS	$_____	$15.06	$11.19	$17.11
Net increase in value of feeders	$_____	$18.62	$21.30	$12.91
RET.ABOVE.FEED COST PER CWT.BEEF PROD.	$_____	$3.56	$10.11	$-4.20
RETURNS FOR $100 OF FEED	$_____	$134	$206	$75
Price recd. per 100 lbs. beef sold	$_____	$13.83	$14.01	$13.06
Price paid per 100 lbs. bought	$_____	$11.22	$11.10	$10.98
No. of animal units	_____	22.0	20.0	34.7
Pounds of beef produced	_____	11182	11782	13132
Lbs. gain in weight per day	_____	1.7	1.8	1.6

Superior management in the cattle feeding enterprise results in a comparatively high return just as superior management in the dairy herd resulted in a high return over feed per cow. The combined effect on return over feed per 100 pounds produced from excelling in five factors is shown in Table 35. The factors included are: (1) feed cost per 100 pounds of cattle produced, (2) the price received per 100 pounds sold, and (3) gain in weight per day. The 11 farmers who were below the average in all three factors failed to secure a return large enough to cover the cost of the feed. Four farmers were above the average in the three factors and their return over feed amounted to $9.64. The difference between the two extremes is $11.49 or $1285 for the average production of 11,182 pounds per farm.

Table 35. Relation of Return Over Feed per 100 Pounds of Beef Cattle Produced to Number of Management Factors in Which Farmers Excelled

No. of factors in which farmer excels	No. of farms*	Length of shaded lines is in proportion to the average return over feed per 100 pounds of beef cattle	Average return over feed
0	11	xxxxx	$-1.85
1	30	xxxxxxxxxx	3.57
2	23	xxxxxxxxxxxxxxxx	5.59
3	4	xxxxxxxxxxxxxxxxxxxxxxxxxxx	9.64

*The records of 9 farmers who did not sell cattle during the year were omitted.

Table 36. Feed Costs and Returns from Beef Breeding Herd, 1944

Items	Your farm	Average of 59 farms	12 farms highest in returns above feed	12 farms lowest in returns above feed
Feeds per animal unit, lbs.:				
Concentrates	_____	1028	1339	1192
Legume hay	_____	2164	1774	2455
Other hay	_____	380	181	531
Fodder and stover	_____	272	321	352
Silage	_____	2934	1947	3582
Skim milk*	_____	101	234	33
Whole milk*	_____	7	21	10
Feed cost per animal unit:				
Concentrates	$_____	$18.86	$24.21	$22.78
Roughages	_____	24.76	19.06	28.94
Milk*	_____	.43	1.10	.30
Pasture	_____	5.87	5.92	5.77
TOTAL FEED COSTS	$_____	$49.92	$50.29	$57.79
Value of produce per animal unit:				
Dairy products	$_____	$13.45	$25.56	$7.95
Net increase in value of animals	_____	48.67	67.02	35.86
TOTAL VALUE PRODUCED	$_____	$62.12	$92.58	$43.81
RET. ABOVE FEED COST PER ANIMAL UNIT	$_____	$12.20	$42.29	$-13.98
RETURNS FOR $100 OF FEED	$_____	$130	$200	$75
Number of cows and herd bulls	_____	16.6	18.0	18.9
Number of animal units in the herd	_____	26.1	29.4	29.2

* Several farmers had both dairy or dual purpose cows and beef cows and fed some milk produced by the milking herd to beef calves.

Table 37. Feed Costs and Returns for Turkeys, 1944

Items	Your farm	Average of 8 farms	4 farms highest in returns above feed	4 farms lowest in returns above feed
Feed per cwt. turkeys produced, lbs.:				
Grain	_____	338	337	339
Con. feeds - under 25% protein	_____	3	5	1
Con. feeds - over 25% protein	_____	184	198	170
Total concentrates	_____	525	540	510
Feed cost per cwt. turkeys produced	$_____	$14.88	$15.51	$14.26
NET INCREASES IN VALUE OF TURKEYS	$_____	$25.15	$28.51	$21.79
RETURNS ABOVE FEED COST PER CWT.TURKEYS	$_____	$10.27	$13.00	$7.53
RETURNS FOR $100 OF FEED	$_____	$168	$185	$151
Price recd.per lb. turkey sold (cts.)	_____	34.5	33.7	35.2
Pounds of turkeys produced	_____	28517	40664	16370

Table 38. Feed Costs and Returns from Chickens, 1944

Items	Your farm	Average of 152 farms	30 farms highest in return above feed	30 farms lowest in return above feed
Feed per hen, lbs.:				
Grain	_____	107	109	115
Commercial feeds	_____	36	38	42
Total concentrates	_____	143	147	157
Skim milk and buttermilk	_____	15	17	11
Feed cost per hen:				
Concentrates	$_____	$3.42	$3.46	$3.80
Skim milk	_____	.04	.05	.03
TOTAL FEED COST	$_____	$3.46	$3.51	$3.83
Value of produce per hen:				
Eggs sold and used in house	$_____	$4.06	$4.84	$3.28
Net increase in value of chickens	_____	1.11	2.01	.64
TOTAL VALUE PRODUCED	$_____	$5.17	$6.85	$3.92
RETURNS ABOVE FEED COST PER HEN	$_____	$1.71	$3.34	$.09
RETURNS FOR $100 OF FEED	$_____	$158	$212	$105
Price rec'd. per doz. eggs sold (cents)	_____	30.9	31.8	29.9
Eggs laid per hen	_____	157	183	131
Ave. no. of hens on farm during the yr.	_____	247	211	205
% of hens that are pullets	_____	87	93	85
% death loss of hens	_____	13	8	15

Superior management leads to high returns. The combined effect on return over feed from excelling in a number of poultry management factors is shown in Table 39. The factors included are (1) pounds of concentrates per hen, including skim milk on a grain equivalent basis, (2) price received per dozen of eggs sold, (3) number of eggs laid per hen, (4) percentage of the hens that are pullets, and (5) death loss. Two farmers were below the average in all the factors; they failed to receive a return large enough to cover the cost of the feed. The 2 farmers who excelled in all five factors had an average return over feed of $3.13 per hen. The difference between the two extremes amounts to $3.39 or $837 for the average flock of 247 hens.

Table 39. Relation of Return Over Feed Per Hen to the Number of Management Factors in Which Farmers Excelled

No. of factors in which farmer excels	No. of farms	The length of the shaded lines is in proportion to the average return over feed per hen	Average return over feed per hen
0	2	xxx	$-.26
1	23	xxxxxxxx	.89
2	44	xxxxxxxxxxxxx	1.38
3	56	xxxxxxxxxxxxxxxxxx	1.92
4	25	xxxxxxxxxxxxxxxxxxxxxxxx	2.60
5	2	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	3.13

Table 40. Feed Costs and Returns from a Farm Flock of Sheep, 1944

Items	Your farm	Average of 50 farms	10 farms highest in returns above feed	10 farms lowest in returns above feed
Feeds per head,* lbs.:				
Concentrates	_____	68	45	119
Legume hay	_____	166	171	225
Other hay	_____	21	1	30
Fodder and stover	_____	9	28	14
Silage	_____	73	10	214
Feed cost per head:				
Concentrates	$_____	$1.31	$.80	$2.28
Roughages	_____	1.49	1.38	2.25
Pasture	_____	.98	.99	.93
TOTAL FEED COSTS	$_____	$3.78	$3.17	$5.46
Value of produce per head:				
Wool	$_____	$2.64	$2.79	$2.44
Net increase in value of sheep	_____	4.14	7.99	-.73
TOTAL VALUE PRODUCED	$_____	$6.78	$10.78	$1.71
RETURNS ABOVE FEED COST PER HEAD	$_____	$3.00	$7.61	$-3.75
RETURNS FOR $100 OF FEED	$_____	$226	$408	$34
Price per cwt. of lambs sold	$_____	$13.15	$13.64	$13.47
Price per lb. wool sold (cts.)	_____	41.1	42.3	39.5
Pounds of wool per sheep sheared	_____	8.4	9.1	7.8
Number of ewes kept for lambing	_____	40	29	63
% lamb crop**	_____	94	117	73
% death loss**	_____	8.7	2.6	18.1
No. of head of sheep*	_____	59	45	93

* Two lambs under six months of age considered as one head.
**Lambs which die during month of birth are not included.

Superior management in the sheep enterprise results in a comparatively high return over feed just as superior management in the dairy herd or poultry flock resulted in a high return over feed per cow or per hen. The effect on return over feed from excelling in 6 factors is shown in Table 41. The factors included are (1) feed cost per head, (2) price received per 100 lbs. of lambs sold, (3) price received per lb. of wool sold, (4) lbs. of wool per sheep sheared, (5) per cent lamb crop, and (6) per cent death loss. The 7 farmers who were above the average in only one or two factors received a return above feed cost of $0.20 per head, while 8 farmers who excelled in 5 or 6 of the factors received a return of $6.78 per head. The difference between the two extremes is $6.58 or $388 for the average flock of 59 head.

Table 41. Relation of Return Over Feed Per Head of Sheep to Number of Management Factors in Which Farmers Excelled

No. of factors in which farmer excels	No. of farms	Length of shaded lines is in proportion to the average return over feed per head of sheep	Average return over feed
1 or 2	7	x	$0.20
3 or 4	20	xxxxxxxxxxxxxxxxx	4.14
5 or 6	8	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	6.78

*The records of 15 farmers who did not sell lambs or failed to report weights were omitted.

Table 42. Feed Costs and Returns from Feeder Sheep, 1944

Items	Your farm	Average of 21 farms	10 farms highest in returns above feed	10 farms lowest in returns above feed
Feeds per cwt. sheep produced, lbs.:				
Concentrates	_____	605	578	638
Legume hay	_____	241	257	248
Other hay	_____	37	37	27
Fodder and stover	_____	1	-	3
Silage	_____	113	86	150
Feed cost per cwt.:				
Concentrates	$_____	$10.04	$9.60	$10.64
Roughages	_____	2.22	2.31	2.31
Pasture	_____	.72	.19	1.21
TOTAL FEED COSTS	$_____	$12.98	$12.10	$14.16
Net increase in value of sheep	$_____	$23.83	$29.40	$18.66
RETURNS ABOVE FEED COST PER CWT. PRODUCED	$_____	$10.85	$17.30	$4.50
RETURNS FOR $100 OF FEED	$_____	$247	$322	$176
Price per cwt. sheep sold	$_____	$15.32	$16.03	$14.61
Price per cwt. for sheep bot in 1943	$_____	$12.13	$12.72	$11.54
% death loss	_____	3.1	2.3	3.7
Pounds of sheep produced	_____	6982	5103	8080

The effect on return over feed from feeder sheep from excelling in three factors is shown in Table 43. The factors included are (1) feed cost per 100 lbs. of sheep produced, (2) price received per 100 lbs. of sheep sold, and (3) death loss. Two farmers failed to excel in any of the three factors or excelled in only one factor; their return over feed was $6.09 per 100 lbs. produced. Ten farmers excelled in two or three of the factors and had an average return over feed of $14.80 per 100 lbs. The difference between the two extremes is $8.71 or $608 for the average production of 6982 lbs. of sheep.

Table 43. Relation of Return Over Feed per 100 Lbs. of Feeder Sheep Produced to Number of Management Factors in Which Farmers Excelled

No. of factors in which farmer excels	No. of farms*	Length of shaded lines is in proportion to the average return over feed per 100 lbs. produced	Average return over feed
None or 1	8	xxxxxxxxxxxx	$6.09
2 or 3	10	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	14.80

* The records of 3 farmers who did not sell sheep during the year were omitted.

Table 44. Summary of Farm Earnings - Averaged by Counties, 1944

	Cotton-wood	Fari-bault	Jackson	Martin	Murray	Nobles	Redwood	Rock	Watonwan
FARM EXPENSES									
Cattle bought	$ 1525	$ 1132	$ 878	$ 816	$ 1522	$ 1584	$ 1562	$ 931	$ 292
Hogs bought	217	533	154	186	699	306	220	440	58
Sheep bought	332	362	197	75	239	770	40	373	27
Poultry bought	214	229	121	104	108	396	95	223	110
Misc. livestock exp.	126	176	126	208	131	213	117	383	122
Crop expense	555	597	506	759	506	496	699	589	653
Feed	2016	1586	2089	1450	1567	3011	2442	2418	1585
Custom work hired	293	225	315	447	176	278	178	273	243
Power expense	872	1074	990	1109	1153	1131	1118	1207	935
Crop mach. & livestock equip.	807	580	517	532	821	712	675	967	529
Buildings	439	353	493	719	388	485	502	687	456
Labor	449	583	667	920	712	573	728	812	508
Taxes, insurance, & misc.	499	407	410	326	411	451	469	455	425
(1) Total purchases	$ 8344	$ 7837	$ 7463	$ 7651	$ 8433	$10406	$ 8845	$ 9758	$ 5943
(2) Decrease in cap.	-	941	1124	-	-	572	1102	-	1235
(3) Board to hired labor	60	49	75	243	126	77	138	236	160
(4) Unpaid family labor	357	352	304	276	179	298	361	355	405
(5) Int. on farm cap.	1857	1892	1697	1711	1646	1790	1959	2017	1655
(6) Total expenses	$10618	$11071	$10663	$ 9881	$10384	$13143	$12405	$12366	$ 9398
FARM RECEIPTS									
Cattle sales	$ 2052	$ 2509	$ 3141	$ 1492	$ 2332	$ 3728	$ 3882	$ 3039	$ 1379
Dairy products	759	857	605	1806	905	806	432	1344	961
Hogs	3511	4499	4693	4060	4027	4633	5454	6653	4258
Sheep	2035	877	231	277	123	1558	152	741	701
Poultry & eggs	1673	1633	1494	936	962	3039	1261	2102	1090
Crop	2263	2159	2021	2019	2219	1433	1879	1807	1408
AAA payment	75	83	91	84	69	100	57	30	38
Work off the farm	177	73	244	23	643	236	508	367	406
Misc. cash receipts	377	274	130	243	260	428	306	322	267
(7) Total farm sales	$12922	$12964	$12650	$10940	$11540	$15961	$13931	$16405	$10508
(8) Increase in cap.	275	-	-	583	1366	-	-	182	-
(9) Family living from farm	463	618	577	563	548	554	535	661	665
(10) Total receipts	$13660	$13582	$13227	$12086	$13454	$16515	$14466	$17248	$11173
(6) Total expenses	10618	11071	10663	9881	10384	13143	12405	12366	9398
(11) Oper. labor earnings	3042	2511	2564	2205	3070	3372	2061	4882	1775

Table 45. Miscellaneous Information - Averaged by Counties, 1944

	Cottonwood	Faribault	Jackson	Martin	Murray	Nobles	Redwood	Rock	Watonwan
FARM INVENTORIES (Beginning of Year)									
Productive livestock	$ 5579	$ 5808	$ 6035	$ 5025	$ 5108	$ 6763	$ 7880	$ 7915	$ 6010
Horses	206	283	250	399	222	343	266	262	358
Crop, seed and feed	3544	4545	3955	3334	4014	4694	5450	5879	3872
Mach. and equipment	3732	3244	3313	2795	3237	3104	3773	3640	2963
Buildings	8534	8868	7387	6908	7698	6803	6458	8437	7822
Land	15398	15567	13556	15464	11964	14380	15909	14115	12690
Total farm capital	$36993	$38315	$34496	$33925	$32243	$36087	$39736	$40248	$33715
MEAS. OF FARM ORG. AND MANAGEMENT EFFIC.									
Crop yields - % of ave.	97	104	102	100	105	95	95	121	91
% high return crops	56.9	53.5	53.2	55.0	57.0	56.9	50.4	56.8	47.9
Index ret. from livestock	102	100	102	111	97	104	88	102	100
A. U. livestock per 100 A.	16.3	23.7	18.6	20.1	21.9	24.2	18.1	28.9	19.3
Work units	463	503	463	466	583	528	583	663	494
Work units per worker	279	274	255	218	326	302	289	320	259
Exp. per work unit	$4.44	$4.48	$5.13	$5.04	$3.47	$4.10	$4.06	$3.48	$3.83
DISTRIBUTION OF ACRES IN FARM									
Small grain	76.0	65.1	64.7	59.6	72.4	65.1	70.6	81.9	50.5
Cultivated crops	112.4	93.0	92.5	91.4	91.0	94.7	116.5	91.1	70.9
Tillable hay land	21.8	20.5	19.4	17.6	26.3	23.7	37.8	27.9	25.3
Tillable pasture	18.0	29.8	20.7	23.1	22.0	19.2	18.5	22.1	21.7
Tillable land not cropped	19.3	8.9	12.3	1.5	10.8	5.6	36.7	1.6	21.9
Total acres in farm	292.0	248.0	251.7	218.6	281.2	245.1	348.0	282.0	244.1
% land tillable	82.8	87.2	83.1	88.9	79.6	85.4	85.2	82.0	77.9
CROP YIELDS PER ACRE									
Flax, bu.	5.6	7.3	5.9	5.3	8.2	4.5	5.1	8.9	4.3
Oats, bu.	38.8	38.9	34.3	29.5	37.5	34.9	44.8	39.4	28.6
Soybeans, bu.	19.0	20.1	19.3	17.9	19.5	17.5	15.4	21.0	17.1
Corn, grain, bu.	49.3	49.0	53.1	54.8	49.8	47.7	44.2	58.6	48.2
Corn silage, tons	8.3	8.1	6.9	8.9	8.5	6.7	6.8	8.2	7.3
Alfalfa hay, tons	1.5	2.2	2.1	1.8	2.1	2.1	1.7	2.6	1.7
AN. UNITS OF LIVESTOCK	38.8	52.4	44.1	37.3	51.0	53.3	59.3	73.7	43.1
% dairy and du. pur. cattle	35.4	21.5	23.6	36.8	25.9	21.1	21.1	26.3	32.0
% in beef breeding herd	5.1	18.7	19.4	15.0	28.6	16.1	11.0	27.6	17.0
% feeder cattle	10.6	12.2	16.0	9.0	15.7	18.0	26.0	5.6	5.8
% hogs	24.3	27.1	28.6	30.1	20.4	24.7	31.7	26.9	31.0
% sheep-farm flock	9.0	11.4	3.5	3.2	3.7	5.4	1.7	6.2	5.4
% sheep-feeders	6.1	3.7	1.9	.7	1.2	5.0	-	2.2	3.1
% turkeys	1.6	1.0	-	..	-	4.6	-	-	.2
% hens	7.9	4.4	7.0	5.2	4.5	5.1	8.5	5.2	5.5

Table 46. Summary of Farm Earnings by Years*

Items	1940	1941	1942	1943	1944
No. of farms	165	166	165	164	163
FARM EXPENSES					
Dairy and dual-pur. cattle bot.	$ 76	$ 138	$ 141	$ 135	$ 112
Beef cattle bot.(incl.feeders)	1243	1766	1718	1187	1109
Hogs bot.	103	209	339	408	315
Sheep bot. (incl. feeders)	414	686	866	694	321
Poultry bot. (incl. turkeys)	99	96	138	165	200
Horses bot.	32	32	49	33	43
Misc. livestock expense	72	109	148	199	173
Miscellaneous crop expenses	243	303	377	507	582
Feed bought	1007	1718	2235	3080	2164
Custom work hired	150	140	199	215	261
Power mach. (new)	379	446	256	180	337
Power mach. (upkeep)	411	497	533	617	699
Crop and gen. mach. (new)	319	416	387	221	332
Crop and gen. mach. (upkeep)	69	84	135	157	174
Livestock equipment (new)	74	123	134	138	91
Livestock equipment (upkeep)	20	32	57	87	78
Buildings and fencing (new)	412	434	327	236	297
Buildings and fencing (upkeep)	88	141	156	168	192
Hired labor	392	561	622	739	651
Taxes	313	337	355	335	311
Insurance	15	32	35	40	41
General farm	59	55	60	72	80
(1) Total farm purchases	$5990	$8355	$9267	$9613	$8563
(2) Decrease in farm capital	-	-	-	-	412
(3) Board furnished hired labor	131	171	143	147	118
(4) Interest on farm capital	1635	1831	1886	1880	1800
(5) Unpaid family labor	252	288	360	335	316
(6) Total farm exp.(Sum of (1)to(5)	$8008	$10645	$11656	$11975	$11209
FARM RECEIPTS					
Dairy and dual-purpose cattle	$ 265	$ 392	$ 446	$ 419	$ 392
Dairy products	570	758	804	916	865
Beef cattle (incl. feeders)	2373	3399	3860	3590	2478
Hogs	1162	2306	4336	5630	4671
Sheep and wool (incl. feeders)	470	1032	1402	968	768
Poultry (including turkeys)	372	396	598	622	829
Eggs	244	334	589	905	911
Horses	42	41	47	45	47
Corn	516	477	625	724	578
Small grain	849	1133	1120	1382	669
Other crops	239	283	366	510	600
Machinery and equipment sold	249	278	133	137	185
Agri. adjustment payment	506	503	503	264	74
Income from labor off the farm	193	196	163	137	183
Miscellaneous	394	176	166	185	197
(7) Total farm sales	$8444	$11704	$15158	$16434	$13447
(8) Increase in farm capital	1179	2618	2102	2	-
(9) Family living from farm	483	538	584	588	572
(10) Tot. farm rec. (7)+(8)+(9)	$10106	$14860	$17844	$17024	$14019
(6) Total farm expenses	8008	10645	11656	11975	11209
(11) Oper. lab. earn. (10) - (6)	2098	4215	6188	5049	2810

* The financial statements differ in that the unpaid family labor rate was $45 per month in 1940, $50 in 1941, $60 in 1942, $75 in 1943 and $85 in 1944; and the board for hired labor was calculated at $18 per month in 1940, $20 in 1941, $25 in 1942, 1943 and 1944.

Table 47. Summary of Miscellaneous Items by Years

Items	1940	1941	1942	1943	1944
Total farm capital	$32724	$36613	$37728	$37602	$36000
MEAS. OF FARM ORG. AND MANAGEMENT EFFICIENCY					
% high return crops*	35.9	36.5	38.9	40.3	54.2
Prod. livestock units per 100 A.	22.1	24.7	24.7	25.1	21.4
Work units	569	631	624	586	530
Work units per worker	263	264	281	279	279
Expenses per work unit	$2.17	$2.30	$2.90	$3.52	$4.20
ACRES PER FARM	279	295	291	280	268
Crop acres per farm	213	223	219	212	191
CROP YIELDS PER ACRE					
Flax, bu.	13.7	12.0	11.5	9.5	6.0
Barley, bu.	42.3	29.6	24.0	10.7	18.8
Oats, bu.	60.1	26.4	44.8	34.3	36.3
Corn, grain, bu.	46.2	55.9	57.4	39.6	49.6
Corn silage, tons	8.5	9.5	10.3	8.5	7.5
Alfalfa hay, tons	2.0	2.0	2.5	2.3	2.0
RETURN ABOVE FEED COST PER:					
Dairy cow	$43.03	$56.89	$70.13	$69.86	$69.46
Dual-purpose cow	26.49	39.13	54.28	41.21	46.01
Animal unit in beef breeding herd	18.20	25.06	35.53	18.54	12.20
100 lbs. feeder cattle produced	2.92	3.99	3.64	1.43	3.56
Head of sheep in farm flock	3.27	5.96	5.61	3.37	3.00
100 lbs. feeder sheep produced	2.13	8.01	6.67	4.24	10.85
100 lbs. hogs produced	1.23	5.15	7.61	2.93	3.31
Hen	.96	1.35	2.07	2.48	1.71
100 pounds turkeys produced	5.74	9.63	14.09	12.31	10.27
FEED COST PER:					
Dairy cow	$46.50	$53.11	$62.99	$88.03	$88.04
Dual-purpose cow	34.85	44.19	48.55	70.09	68.02
Animal unit in beef breeding herd	29.86	33.57	34.55	46.58	49.92
100 lbs. of feeder cattle produced	8.00	9.21	13.27	17.25	15.06
Head of sheep in farm flock	2.60	2.76	3.01	4.14	3.78
100 lbs. feeder sheep produced	7.16	8.38	14.23	13.85	12.98
100 lbs. hogs produced	4.29	5.55	6.76	9.89	10.32
Hen	1.11	1.50	2.15	3.17	3.46
100 lbs. turkeys produced	7.27	8.26	11.40	14.96	14.88
Horse	29.74	31.80	37.06	47.87	40.58
MISC. LIVESTOCK INFORMATION					
No. of work horses	4.1	4.2	4.0	3.7	3.3
No. of colts	1.0	1.0	.7	.7	.6
No. of dairy or dual-purpose cows	8.6	9.1	8.6	7.6	6.6
Head in beef breeding herd	9.0	9.4	9.9	10.7	13.5
Lbs. feeder cattle produced	8678	14087	10119	8483	5315
Litters of pigs	13.6	16.9	20.1	25.4	16.7
Pounds of hogs produced	21335	27550	34522	39596	29054
No. of hens	161	173	196	223	230
Lbs. of butterfat per dairy cow	250	254	250	251	226
Lbs. of butterfat per dual-pur. cow	179	190	190	182	172
No. of pigs weaned per litter	6.2	6.4	6.3	6.0	5.9
% lamb crop	110	110	109	105	94
Eggs per hen	113	117	135	146	157

* The crop ratings used in calculating the percentage of the tillable land in high return crops was changed considerably in 1944.

Table 47. Summary of Miscellaneous Items by Years (Continued)

Items	1940	1941	1942	1943	1944
PRICE RECEIVED PER:					
Lb. B.F. sold to creameries	$ .31	$ .37	$ .42	$ .53	$ .58
100 pounds feeder cattle	8.81	10.13	12.22	13.68	13.83
100 pounds feeder sheep	8.74	10.08	12.47	14.52	15.32
Pound of wool	.29	.38	.41	.41	.41
100 pounds of hogs	5.15	9.07	13.13	13.80	13.12
Dozen eggs	.15	.21	.28	.35	.31
Pound of turkeys	.14	.18	.29	.32	.34
PRICE OF FEED					
Shelled corn, bu.	$ .47	$ .54	$ .68	$ .91	$ .92
Oats, bu.	.26	.32	.41	.60	.70
Barley, bu.	.31	.39	.52	.77	.92
Alfalfa hay, ton	7.50	8.50	8.00	11.00	15.00
Timothy hay, ton	4.80	5.45	5.15	6.75	9.00
Corn silage, ton	2.10	2.55	2.75	3.62	5.00
Bran, cwt.	1.20	1.50	2.10	2.10	2.20
Linseed oilmeal, cwt.	1.75	2.00	2.40	2.55	2.85
Tankage, cwt.	2.50	3.20	4.10	4.00	4.18
Meat scraps, cwt.	2.55	3.20	4.10	4.00	4.18

Suggestions for Improvements