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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 1947

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Cooperator: _____

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Division of Agricultural Economics
University Farm
St. Paul 1, Minnesota
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Twentieth Annual Report of the Farm Management Service of Dakota, Dodge, Freeborn, Goodhue, LeSueur, Mower, Nicollet, Olmsted, Rice, Scott, Steele, Wabasha, Waseca, and Winona Counties for the year 1947.

Prepared by T. R. Nodland 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 and the United States Department of Agriculture.

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 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. Glen Myers is the field agent for this project. At the end of the year, S. A. Engene and R. R. Beneke of the Division of Agricultural Economics aided in closing the records. County agricultural extension agents who cooperate in this project include C. O. Quie, V. Sander, C. L. Blakeslee, R. E. Jacobs, G. J. Kunau, Russell Miller, F. L. Liebenstein, F. E. Wetherill, Ray Aune, Ed Slettom, C. Graham, J. R. Gute, Herbert Feldman, C. F. Murphy, and Norman Mindrum.

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 determinepolicies and especially to maintain the field organization and membership. Officers for 1947 were:

President: A. M. Falkenhagen, Kasson, Dodge County;
Vice President: Harvey Dankers, Goodhue, Goodhue County;
Secretary-Treasurer: Emery Lindesmith, Owatonna, Steele County.

The board of directors included these officers and also the following; Wm. Benitt, Dakota County; John Jerdee, Freeborn County; Wilfred Denisen, Mower County; Adolph Lokensgard, Nicollet County; Vernon Lance, Olmsted County; John Holmes, Rice County; Herman Krueger, Scott County; Harvey Carlton, Wabasha County; David Zimmerman, Waseca County; and George Rowekamp, Winona County.

The following tabulation shows by counties the number of records submitted in 1947:

Dakota	7	Mower	12	Steele	18
Dodge	14	Nicollet	10	Wabasha	13
Freeborn	17	Olmsted	12	Waseca	18
Goodhue	20	Rice	11	Winona	9
LeSueur	5	Scott	8	Total	174

The table on page 4 and succeeding pages show 170 farms. Four farms have been omitted from all the averages in the tables because they differed so widely in type from the others or the records were not sufficiently complete for a full analysis.

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 1. Monthly and Annual Precipitation

	Rochester		Albert Lea		Faribault	
	Precipitation	Departure from normal	Precipitation	Departure from normal	Precipitation	Departure from normal
	Inches	Inches	Inches	Inches	Inches	Inches
January	1.14	+0.04	1.31	+ .50	0.61	- .07
February	0.60	-0.22	0.19	- .72	0.12	- .57
March	1.42	+ .10	1.96	+ .73	1.45	+ .34
April	2.83	+0.37	3.69	+1.29	4.33	+2.42
May	4.19	+ .39	2.22	-1.61	2.59	- .61
June	4.90	+ .31	8.26	+3.68	5.30	+ .93
July	2.86	- .30	3.72	+0.24	1.56	-1.79
August	6.59	+3.14	4.38	+ .73	7.16	+3.75
September	3.39	-0.09	3.71	- .02	3.62	+ .17
October	2.67	+0.57	2.97	+ .84	2.08	0.00
November	1.75	+ .18	1.58	+ .11	2.52	+1.18
December	1.63	+ .71	1.12	+ .17	0.72	+0.04
1947 Total	33.97	+5.20	35.11	+5.94	32.06	+5.79
1946 Total	23.09	-0.68	36.09	+6.92	28.39	+2.12
1945 Total	34.16	+5.39	38.71	+9.54	36.34	+10.07
1944 Total	22.47	-6.30	30.95	+1.78	31.84	+5.57
1943 Total	23.50	-5.27	37.78	+8.61	28.12	+1.85
1942 Total	41.68	+12.91	31.22	+2.05	28.57	+2.30
1941 Total	29.80	+1.03	36.35	+7.18	23.08	-3.19

The spring season temperatures were somewhat below normal with weather conditions unfavorable for early seeding of small grains. May was cool and dry but was followed by generous rains in June. Low rainfall and high temperatures during late July and early August caused some damage to pastures, hay and corn. Heavy rains occurring during the latter half of August helped corn and soybeans. Most crops had matured before the killing frosts on September 22. October was ideal for harvesting corn and soybeans. A heavy snowfall occurred early in November.

Table 2. Summary of Farm Inventories, 1947*

Items	Your farm Jan. 1	Your farm Dec. 31	Average of 170 farms Jan. 1	Average of 170 farms Dec. 31
Size of farm (acres)			223	
Size of business (work units)**			573	
Dairy and dual purpose cows			$1525	$1593
Other dairy & dual purpose cattle			865	997
Beef cattle (incl. feeders)			459	489
Hogs			1373	1714
Sheep (including feeders)			200	209
Poultry (including turkeys)			380	370
Productive livestock (total)			4802	5372
Horses			178	147
Crop, seed, and feed			4005	5857
Power mach. (farm share)			1024	1266
Crop & general mach. (farm share)			1732	2092
Livestock equipment & supplies			625	618
Mach. & equipment (total)			3381	3976
Misc.			33	49
Buildings, fences, etc.			7551	8091
Land			9462	9462
Total farm capital			29412	32954

Items	34 most profitable farms Jan. 1	34 most profitable farms Dec. 31	34 least profitable farms Jan. 1	34 least profitable farms Dec. 31
Size of farm (acres)	296		187	
Size of business (work units)**	695		513	
Dairy & dual purpose cows	$1559	$1708	$1653	$1625
Other dairy & dual purpose cattle	916	1163	799	930
Beef cattle (inc. feeders)	778	906	377	413
Hogs	2407	2996	857	843
Sheep (including feeders)	478	405	109	104
Poultry (including turkeys)	517	433	488	355
Productive livestock (total)	6655	7611	4283	4270
Horses	193	158	197	173
Crop, seed, and feed	6416	10496	2963	3354
Power mach. (farm share)	1319	1584	910	1088
Crop & general mach.	2439	3219	1476	1693
Livestock equipment & supplies	731	675	647	627
Mach. & equipment (total)	4489	5478	3033	3408
Misc.	-	-	105	154
Buildings, fences, etc.	8845	9866	7307	7838
Land	12721	12721	7508	7508
Total farm capital	39319	46330	25396	26705

*For the purpose of comparison, all the data shown in this report with the exception of Tables 5 and 6 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 24 for an explanation of "work units."

Table 3. Summary of Farm Earnings (Cash Statement), 1947

Items	Your farm	Average of 170 farms	34 most profitable farms	34 least profitable farms
FARM RECEIPTS				
Dairy and dual-purpose cows	_____	$ 826	$ 928	$ 749
Dairy products	_____	4129	4295	4238
Other dairy & dual-purpose cattle	_____	654	722	567
Beef cattle (including feeders)	_____	628	1094	191
Hogs	_____	4362	8104	2234
Sheep and wool (including feeders)	_____	224	475	148
Poultry (including turkeys)	_____	609	851	707
Eggs	_____	1410	1539	1630
Horses	_____	23	22	19
Corn	_____	402	572	193
Small grain	_____	904	1848	794
Other crops	_____	1033	2021	459
Machinery & equip. sold	_____	291	279	285
Agricultural adjustment payments	_____	65	103	59
Income from work off the farm	_____	302	301	222
Miscellaneous	_____	85	178	66
(1) Total farm sales	_____	15947	23332	12561
(2) Increase in farm capital	_____	3542	7011	1309
(3) Family living from the farm	_____	741	815	725
(4) Total farm receipts (1)+(2)+(3)	_____	20230	31158	14595
FARM EXPENSES				
Dairy and dual-purpose cows bought	_____	$ 137	$ 131	$ 67
Other dairy & dual-pur.cattle bot	_____	159	169	96
Beef cattle bot (incl. feeders)	_____	140	362	94
Hogs bought	_____	226	223	158
Sheep bought (including feeders)	_____	65	12	9
Poultry bought (including turkeys)	_____	149	120	195
Horses bought	_____	11	8	11
Misc. livestock expenses	_____	250	331	243
Misc. crop expenses	_____	780	1210	603
Feed bought	_____	2224	3211	2229
Custom work hired	_____	400	469	341
Mech.pow.mach.(farm share)(new)	_____	527	609	459
Mech.pow.mach.(farm share)(upkp.)	_____	310	438	246
Mech.pow.(farm share)(gas,oil,etc.)	_____	678	859	578
Crop and general mach.(new)	_____	726	1287	515
Crop and general mach.(upkeep)	_____	212	288	165
Livestock equipment (new)	_____	97	80	75
Livestock equipment (upkeep	_____	91	123	99
Buildings and fencing(new)	_____	897	1522	842
Buildings and fencing (upkeep)	_____	354	468	328
Hired labor	_____	893	1222	844
Taxes	_____	362	457	308
General farm and insurance	_____	157	196	139
(5) Total farm purchases	_____	9845	13795	8644
(6) Decrease in farm capital	_____	-	-	-
(7) Interest on farm capital	_____	1559	2141	1303
(8) Unpaid family labor	_____	582	820	567
(9) Board furnished hired labor	_____	201	247	184
(10) Total farm.exp.(Sum of (5)to(9)	_____	12187	17003	10698
(11) Operator's labor earnings(4)-(10)	_____	8043	14155	3897

Table 4. Summary of Farm Earnings (Enterprise Statement) 1947*

Items	Your farm	Average of 170 farms	34 most profitable farms	34 least profitable farms
RETURNS AND NET INCREASES				
Dairy and dual purpose cows	_____	$ 4881	$ 5236	$ 4903
Other dairy & dual pur. cattle	_____	1073	1252	996
Beef breeding herd	_____	226	251	141
Feeder cattle	_____	274	661	2
Hogs	_____	4604	8623	2127
Sheep - farm flock	_____	139	367	134
Sheep - feeders	_____	28	25	-
Turkeys	_____	323	544	262
Chickens	_____	1647	1756	1855
All productive livestock	_____	13195	18715	10420
Crops, seed and feed	_____	1182	4066	-970
Agricultural conservation payments	_____	65	103	59
Income from labor off the farm	_____	173	111	178
Miscellaneous	_____	196	186	228
(1) Total returns & net increases	_____	14811	23181	9915
EXPENSES AND NET DECREASES				
Horses	_____	$ 148	$ 151	$ 162
Tractor	_____	524	759	437
Truck	_____	155	231	125
Auto (farm share)	_____	241	260	200
Gas engine and elect.exp.(F.share)	_____	119	161	121
Hired power	_____	213	244	194
Total power	_____	1400	1806	1239
Crop and general machinery	_____	478	667	398
Livestock equipment	_____	183	237	188
Buildings, fencing and tiling	_____	606	764	542
Misc. productive livestock expense	_____	236	330	211
Labor	_____	1787	2428	1690
Real estate taxes	_____	300	385	254
Personal property tax	_____	62	72	54
Insurance	_____	63	85	54
General farm	_____	94	111	85
Interest on farm capital	_____	1559	2141	1303
(2) Total expenses & net decreases	_____	6768	9026	6018
(3) Oper. labor earnings (1) - (2)	_____	8043	14155	3897

*Cash receipts and expenses are adjusted for changes in inventory for each enterprise and for each item of expense in order to show total receipts and net increases, and total expenses and net decreases. The operator's labor earnings are the same as those on page 4.

Table 5. Net Worth Statement for Those Farmers Who Kept a Complete Record of All Assets and Liabilities, 1947 (Operator's Share)

	Your Farm		44 Owners	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31
Total acres in farm	———		186.3	
Owned	———		186.3	
Rented	———		-	
Total farm capital	———	———	$25037	$28207
Accounts receivable	———	———	143	242
Stocks and bonds	———	———	3241	3774
Life insurance	———	———	992	1136
Outside real estate	———	———	390	708
Other outside investments	———	———	438	381
Total outside investments	———	———	5061	5999
Cash on hand and in bank	———	———	1238	1436
Other household & personal assets	———	———	1140	1366
Total cash, household & personal assets	———	———	2378	2802
TOTAL ASSETS	———	———	32619	37250
Federal Land Bank Mortgage	———	———	389	202
Other mortgages on land operated	———	———	4165	3476
Mortgages on other real estate	———	———	80	259
Production Credit Association	———	———	35	43
Other chattel mortgages	———	———	330	366
Notes payable	———	———	1240	1143
Accounts payable	———	———	201	138
TOTAL LIABILITIES	———	———	6440	5627
Farmer's net worth	———	———	26179	31623
Gain in net worth		———		+5444

	20 part-owners*		16 Renters**	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31
Total acres in farm	243.8		189.8	
Owned	141.2		-	
Rented	102.6		189.8	
Total farm capital	$24212	$27522	$8498	$11030
Accounts receivable	192	224	143	142
Stocks and bonds	1424	1532	1230	1451
Life insurance	286	348	349	405
Outside real estate	45	301	42	42
Other outside investments	409	432	216	234
Total outside investments	2164	2613	1837	2132
Cash on hand and in bank	1433	1686	754	864
Other household & personal assets	949	1273	1291	1685
Total cash, household & personal assets	2382	2959	2045	2549
TOTAL ASSETS	28950	33318	12523	15853
Federal Land Bank Mortgage	1670	1507	-	-
Other mortgages on land operated	1615	1175	-	-
Mortgages on other real estate	-	-	-	-
Production Credit Association	249	331	-	-
Other chattel mortgages	259	300	674	597
Notes payable	1033	1477	477	792
Accounts payable	309	224	455	572
TOTAL LIABILITIES	5135	5014	1606	1961
Farmer's net worth	23815	28304	10917	13892
Gain in net worth		+4489		+2975

*12 rented for cash, 4 cash and crop share, 3 crop share and 1 livestock share.
**9 rented for cash, 3 cash and crop share, and 4 livestock share.

Table 6. Summary of Farm Earnings by Tenure, 1947 (Operator's Share)

	Your farm	44 Owners	20 part-owners	16 renters
FARM RECEIPTS				
Dairy and dual purpose cows	____	$ 668	$ 774	$ 769
Dairy products	____	3735	3675	3515
Other dairy and dual purpose cattle	____	427	531	563
Beef cattle (including feeders)	____	509	359	34
Hogs	____	3942	3928	3232
Sheep and wool (including feeders)	____	308	119	145
Poultry (including turkeys)	____	829	246	302
Eggs	____	1398	1221	1607
Horses	____	23	26	19
Corn	____	153	527	336
Small grain	____	491	999	512
Other crops	____	704	1645	467
Machinery & equipment sold	____	259	244	461
Agricultural adjustment payments	____	74	49	61
Income from work off the farm	____	481	437	239
Misc.	____	115	86	16
(1) Total farm sales	____	$14116	$14866	$12278
(2) Increase in farm capital	____	3170	3310	2532
(3) Family living from the farm	____	737	670	661
(4) Total farm rec. (1)+(2)+(3)	____	$18023	$18846	$15471
FARM EXPENSES				
Dairy and dual purpose cows bot.	____	$ 124	$ 460	$ 141
Other dairy & dual pur.cattle bot.	____	139	188	119
Beef cattle bot.(including feeders)	____	47	199	31
Hogs bot.	____	172	104	305
Sheep bot. (including feeders)	____	234	14	6
Poultry bot. (including turkeys)	____	197	107	131
Horses bot.	____	12	11	6
Misc. livestock expenses	____	249	199	154
Misc. crop expenses	____	608	861	507
Feed bot.	____	2122	1711	1861
Custom work hired	____	432	316	330
Mech. power mach.(farm share) (new)	____	478	462	875
Mech. power mach. (farm share)(upkeep)	____	306	331	314
Mech. power (farm share)(gas,oil,etc.)	____	600	732	511
Crop and general mach. (new)	____	553	792	763
Crop and general mach. (upkeep)	____	159	332	202
Livestock equipment (new)	____	133	84	88
Livestock equipment (upkeep)	____	99	70	95
Land, buildings & fencing (new)	____	922	321	235
Buildings and fencing(upkeep)	____	395	364	84
Hired labor	____	782	1169	577
Taxes (real estate & pers. property)	____	297	234	39
General farm and insurance	____	147	154	112
Cash rent	____	-	439	998
Interest paid	____	224	175	55
(5) Total farm purchases	____	$9431	$9829	$8539
(6) Decrease in farm capital	____	-	-	-
(7) Interest on farm capital	____	1107	1118	433
(8) Unpaid family labor	____	454	347	235
(9) Board furnished hired labor	____	154	254	144
(10) Total farm exp.(Sum of (5)to(9)	____	$11146	$11548	$ 9351
(11) Operator's labor earn. (4) - (10)	____	6877	7298	6120
(12) Ret. cap.& family lab.(7)+(8)+(11)	____	8438	8763	6788

Table 7. Household and Personal Expenses for These Farms Which Kept Complete Accounts of These Expenses, 1947

Items	Your farm	Average of 93 farms	19 most profit-able farms	19 least profit-able farms
Number of persons - family	_____	3.9	4.4	3.7
Number of adult equiv. - family	_____	3.0	3.2	3.1
others*	_____	.6	.6	.6
Food and meals bought	_____	$617	$676	$634
Operating and supplies	_____	233	211	274
Clothing and clothing materials	_____	309	411	279
Personal care, personal spending	_____	72	80	103
Furnishings and equipment	_____	335	379	216
Education, recreation and development	_____	163	130	240
Medical care and health insurance	_____	157	181	94
Church, welfare, gifts	_____	303	461	413
Personal share of auto expense	_____	123	127	148
Household share of elect. & gas eng. exp.	_____	54	65	50
H.H.&pers.shr.of new auto,gas eg.&motors bot.	_____	102	81	187
Total cash living expenses	_____	$2468	$2802	$2638
State and federal income taxes	_____	325	395	328
Insurance	_____	275	535	226
Total household and personal cash exp.	_____	$3068	$3732	$3192
Food furnished by the farm	_____	503	558	465
Fuel furnished by the farm	_____	20	33	23
House rental	_____	202	196	250
Total cash expenses & perquisites	_____	$3793	$4519	$3930
Investments and savings	_____	$ 436	$ 813	$ 178
Receipts:				
Sale of investments	_____	$ 17	$ -	$ 31
Misc. income	_____	363	619	266

*Hired help or others boarded.

Table 8. Family Living From the Farm, 1947

Items	Your farm	Average 170 farms	34 most profit-able farms	34 least profit-able farms	Your farm	Average 170 farms	34 most profit-able farms	34 least profit-able farms
Adult equiv. - family	____	3.1	3.5	3.0				
- others	____	.6	.8	.6				
Whole milk	____	1410 qts.	1478	1410	____	$109.20	$111.46	$109.82
Skim milk	____	129 qts.	184	227	____	1.39	1.95	2.05
Cream	____	105 pts.	152	116	____	28.21	41.17	31.42
Farm made butter	____	1 lb.	-	-	____	.62	-	-
Beef	____	441 lbs.	341	330	____	66.00	57.04	48.02
Hogs	____	436 lbs.	625	287	____	105.57	155.17	67.27
Sheep	____	3 lbs.	5	7	____	.38	1.21	.53
Poultry	____	143 lbs.	111	119	____	29.05	21.89	24.39
Eggs	____	216 doz.	235	265	____	78.38	89.30	82.47
Potatoes	____	10 bu.	13	10	____	14.68	18.76	15.28
Vegetables & fruits	____				____	73.07	77.65	71.56
Farm fuel	____	3 cds.	4	2	____	18.60	27.41	14.41
Rental vl. of house					____	216.16	211.63	257.35
Misc.					____	.07	-	-
Total						$741.38	$814.64	$724.57

CUMULATIVE EFFECT OF EXCELLING IN A NUMBER OF MANAGEMENT FACTORS

Studies of earnings of farmers in this area show that there are seven major management factors causing variations in earnings among farmers within a given year. These seven factors are (1) crop yields, (2) choice of crops, (3) returns from livestock, (4) amount of livestock, (5) size of business, (6) work accomplishment per worker, and (7) control over expenses. The combined or cumulative influence of these seven management factors on earnings is shown in Table 9. The farmer's earnings are determined to a considerable extent by his accomplishments in these seven factors.

Table 9. Relation of Operator's Labor Earnings to the Number of Factors in which the Farmer Excels

No. of factors in which farmer 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 1	13	____	xxxxxxxxxxxxxxxxxxxxxxxxxx	$6795
2 or 3	73	____	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	7496
4 or 5	74	____	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	8501
6 or 7	10	____	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	10240

The array in Table 9 indicates that it will be worth while for each cooperator to study carefully his ranking on pages 10 and 11, and learn his standing in respect to each of the above factors and the elements of strength and weakness in his farm business.

Table 10. Measures of Farm Organization and Management Efficiency, 1947

Measures used in chart on page 11	Your farm	Average of 170 farms	34 most profit-able farms	34 least profit-able farms
Operator's Labor Earnings	$_____	$8042	$14,155	$3897
(1) Crop yields*	_____	100	105	97
(2) % of tillable land in high ret.crops**	_____	50.2	49.7	47.9
(3) Ret. for $100 feed to prod.livestock***	_____	100	102	96
(4) Prod.livestock units per 100 acres****	_____	22.6	21.3	24.1
(5) Size of business - work units	_____	573	695	513
(6) Work units per worker	_____	287	290	257
(7) Pow.,mach.,equip.,&bldg.exp.per work unit	$_____	$4.74	$5.07	$4.66
Measures and items related to some of the above measures:				
(3) Index of return for $100 feed from:				
Dairy cattle (see pages 16 & 17)	_____	100	99	100
Dual purpose cattle (see pages 18 &19)	_____	100	118	75
Beef breeding herd (see page 20)	_____	100	107	80
Feeder cattle (see page 20)	_____	100	92	-
Hogs (see page 15)	_____	100	108	95
Native sheep (see page 23)	_____	100	112	74
Turkeys (see page 22)	_____	100	-	-
Chickens (see page 21)	_____	100	98	105
(4) Number of animal units prod. livestock	_____	41.5	52.5	36.3
(5) Work units on crops	_____	146	207	112
Work units on productive livestock	_____	397	469	369
Other work units	_____	30	19	32
(6) Number of family workers	_____	1.3	1.5	1.4
Number of hired workers	_____	.7	.9	.6
Total number of workers	_____	2.0	2.4	2.0
(7) Power expense per work unit	$_____	$2.47	$2.61	$2.43
Crop mach. expense per work unit	_____	.85	.99	.75
Livestock equip. exp. per work unit	_____	.33	.35	.36
Building exp. per work unit	_____	1.09	1.12	1.12

*Given as a percentage of the average

**Crops are marked on page 12 as (A), (B), (C), and (D). All of the 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 10, locate your standing with respect to the various measures of farm organization and management efficiency. The averages for the 170 farms included in this summary are located between the dotted lines across the center of this page.

	Oper. labor earnings	Crop 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
	$14400	140	74.0	140	38.5	895	445	$1.55
	13600	135	71.0	135	36.5	855	425	1.95
	12800	130	68.0	130	34.5	815	405	2.35
	12000	125	65.0	125	32.5	775	385	2.75
	11200	120	62.0	120	30.5	735	365	3.15
	10400	115	59.0	115	28.5	695	345	3.55
	9600	110	56.0	110	26.5	655	325	3.95
	8800	105	53.0	105	24.5	615	305	4.35
	8000	100	50.0	100	22.5	575	285	4.75
	7200	95	47.0	95	20.5	535	265	5.15
	6400	90	44.0	90	18.5	495	245	5.55
	5600	85	41.0	85	16.5	455	225	5.95
	4800	80	38.0	80	14.5	415	205	6.35
	4000	75	35.0	75	12.5	375	185	6.75
	3200	70	32.0	70	10.5	335	165	7.15
	2400	65	29.0	65	8.5	295	145	7.55

Table 11. Distribution of Acres in Farm, 1947

Crop: (A), (B), (C) and (D) refer to ranking used in calculating % of tillable land in High Return Crops (see page 10)		No. growing this crop	Your farm	Average of 170 farms	34 most profit-able farms	34 least profit-able farms	Acres per fa growin crop
Canning peas	(A)	18	_____	1.9	3.3	-	17.6
Flax	(C)	46	_____	5.4	11.6	2.6	19.8
Soybeans	(C)	59	_____	8.0	17.6	4.3	23.1
Barley	(D)	51	_____	3.7	7.0	3.6	12.3
Oats and barley	(D)	37	_____	4.4	3.3	4.3	20.4
Oats	(D)	153	_____	25.2	33.2	19.3	28.0
Oats and wheat	(D)	36	_____	3.8	6.0	2.7	18.0
Wheat	(D)	73	_____	5.1	10.1	4.1	11.9
Rye, millet and buckwheat	(D)	17	_____	.9	1.0	1.1	9.1
Total small grain and peas		169		58.4	93.1	42.0	58.8
Sugar beets, hybrid seed corn, potatoes and truck crops	(A)	50	_____	2.6	5.7	1.4	8.8
Corn grain	(A)	169	_____	39.2	55.4	22.6	39.4
Corn silage	(B)	142	_____	10.5	11.6	11.7	12.6
Sweet corn	(B)	13	_____	1.1	.9	.5	14.4
Corn fodder	(D)	19	_____	.4	.3	.4	3.9
Total cultivated crops		170		53.8	73.9	36.6	53.8
Alfalfa hay	(A)	131	_____	16.3	19.0	15.5	21.1
Red clover hay	(B)	37	_____	3.3	5.5	1.9	15.2
Soybean hay	(C)	20	_____	.7	1.0	1.1	6.1
Mixed legumes & non-legumes	(C)	63	_____	7.4	7.5	8.5	20.1
Legumes for seed	(C)	12	_____	.4	.3	.2	5.4
Timothy and/or brome hay	(D)	22	_____	1.1	2.0	1.4	8.6
Timothy seed	(D)	5	_____	.4	.7	.6	12.2
Other annual hay	(D)	7	_____	.4	.4	1.5	10.9
Total tillable land in hay		169		30.0	36.4	30.7	30.2
Alfalfa and mixtures incl. alf.	(A)	64	_____	6.1	6.1	7.4	16.2
Sweet clover pasture	(B)	10	_____	1.0	1.6	.4	17.4
Other legumes and mixtures	(C)	50	_____	4.4	9.5	1.7	15.1
Sudan grass or rape pasture	(C)	31	_____	.8	.5	1.0	4.4
Other tillable pasture	(D)	69	_____	7.7	7.5	6.4	18.9
Total tillable land in pasture		149		20.0	25.2	16.9	22.8
Tillable land not cropped	(D)	36	_____	1.8	2.6	1.9	8.4
Total tillable land		170		164.0	231.2	128.1	164.0
Phalaris hay (non-tillable)		9	_____	1.3	.7	3.9	23.7
Wild hay (non-tillable)		51	_____	2.7	3.9	2.0	9.1
Non-tillable pasture		136	_____	29.0	29.2	30.9	36.2
Timber (not pastured)		71	_____	7.4	10.2	6.7	17.6
Roads and waste			_____	12.0	11.1	9.6	
Farmstead			_____	6.5	9.5	5.7	
Total acres in farm			_____	222.9	295.8	186.9	
Per cent land tillable			_____	73.6	78.2	68.5	
Per cent tillable land in high ret. crops			_____	50.2	49.7	47.9	

Table 12. Crop Yields Per Acre, 1947

Crop	Your farm	Average 170 farms	34 most profitable farms	34 least profitable farms
Canning peas, value above seed cost	$_____	$63.83	$53.64	- -
Flax, bu.	_____	13.1	13.2	13.2
Soybeans, bu.	_____	14.6	16.8	15.1
Barley, bu.	_____	29.4	29.3	27.3
Oats and barley, bu.	_____	41.8	40.3	39.9
Oats, bu.	_____	47.5	52.8	44.1
Oats and wheat, bu.	_____	37.6	39.6	29.9
Wheat, bu.	_____	17.5	17.2	14.9
Rye, bu.	_____	17.0	23.0	20.6
Buckwheat, bu.	_____	5.0	- -	- -
Corn, grain, bu.	_____	41.6	43.2	39.3
Corn and cane silage, tons	_____	7.8	8.4	7.3
Sweet corn, tons	_____	2.6	3.2	2.4
Corn and cane fodder, tons	_____	2.9	2.5	2.3
Alfalfa hay, tons	_____	2.4	2.4	2.2
Red clover hay, tons	_____	2.0	2.0	1.9
Soybean hay, tons	_____	1.4	1.6	1.2
Mixed legume & non-legume hay, tons	_____	1.6	1.5	1.7
Legumes for seed, lbs.	_____	99.	165.	- -
Timothy and/or brome hay, tons	_____	1.4	1.0	1.6
Timothy seed, lbs.	_____	127.	125.	- -
Other annual hay, tons	_____	1.1	1.2	1.5
Phalaris hay or non-tillable land, tons	_____	.9	1.0	- -
Wild hay, tons	_____	.9	.6	1.0

Table 13. Average Price of Feeds, 1947

Item	Value	Item	Value
Ear corn, per bu.	$1.76	Alfalfa hay, per ton	$21.50
Oats, per bu.	.92	Red or alsike clov. hay, per ton	18.50
Barley, per bu.	1.82	Soybean hay, per ton	18.50
Wheat, per bu.	2.38	Timothy, per ton	12.70
Rye, per bu.	2.29	Sweet clover, per ton	12.75
Soybeans, per bu.	3.10	Wild hay, per ton	10.75
Bran, per cwt.	3.20	Corn fodder, per ton	9.75
Linseed oilmeal, per cwt.	4.50	Corn silage, per ton	6.60
Soybean oilmeal, per cwt.	4.55	Pasture, per mo. per an. unit	1.25
Tankage, per cwt.	6.20	Skim milk, per cwt.	.40

Table 14. Feed Costs for Horses and Misc. Power and Machinery Expense, 1947

Items	Your farm	Average of 153 farms*	30 most profitable farms*	31 least profitable farms*
Feed per horse,** Lbs.:				
Grain	_____	541	506	599
Hay	_____	3207	3282	3573
Fodder and stover	_____	414	344	438
Feed costs per horse:				
Grain	_____	$15.85	$14.20	$18.46
Roughage	_____	26.78	26.32	29.71
Pasture	_____	5.93	5.30	6.42
TOTAL FEED COSTS	$_____	$48.56	$45.82	$54.59
Number of work horses	_____	2.8	3.3	2.7
Number of colts	_____	.3	.3	.5
Crop acres per farm	_____	146.2	208.0	115.2
Tractor and horse exp. per crop acre	_____	$4.78	$4.72	$5.33
Crop & Gen. Mach. exp. per crop acre	_____	3.37	3.53	3.35

*Seventeen farmers did not have horses. The crop acres and expenses per crop acre are averages for 170 farms.
**Two colts equal one horse.

Table 15. Feed Costs and Returns from Hogs, 1947

Items	Your farm	Average of 145 farms	29 farms highest in returns above feed	29 farms lowest in returns above feed
Feed per cwt. hogs produced, lbs.:				
Corn	_____	393	319	535
Small grain	_____	102	79	125
Commercial feeds	_____	40	33	44
Total concentrates	_____	535	431	704
Skim milk, buttermilk and whey	_____	70	39	41
Feed cost per cwt. hogs produced:				
Concentrates	$_____	$17.51	$13.64	$23.39
Skim milk, buttermilk and whey	_____	.28	.16	.16
Pasture	_____	.20	.18	.20
TOTAL FEED COSTS	$_____	$17.99	$13.98	$23.75
Net increase in value per cwt. hogs prod.	_____	$26.18	$27.86	$24.65
RETURNS ABOVE FEED COST PER CWT. HOGS PROD.	$_____	$8.19	$13.88	$.90
RETURNS FOR $100 OF FEED	$_____	$153.00	$185.00	$107.00
Price received per cwt. hogs sold	$_____	24.54	25.06	24.32
No. of spring litters raised	_____	8.7	8.7	8.2
No. of fall litters raised	_____	4.2	3.3	3.7
Total no. of litters raised	_____	12.9	12.0	11.9
No. of pigs born per litter	_____	7.8	7.4	7.5
No. of pigs weaned per litter	_____	6.2	5.9	5.7
Pounds of hogs produced	_____	20700	21839	17709

Table 16. Factors of Cost and Returns from Dairy Cows, 1947

Items	Your farm	Average of 146 farms	29 farms highest in butterfat per cow	29 farms lowest in butterfat per cow
Pounds of butterfat per cow	_____	281	359	206
% butterfat in milk	_____	3.7	3.6	3.6
Price rec. per lb. B.F. sold (cents)	_____	94.2	95.6	91.1
As manufacturing cream (cents)	_____	83.6	85.8	82.8
Other (cents)	_____	96.6	97.6	96.0
Feeds per cow, lbs:				
Corn	_____	1277	1389	853
Small grain	_____	796	1095	488
Commercial feeds	_____	439	699	179
Legume hay	_____	3077	3525	2870
Other hay	_____	977	763	895
Fodder and stover	_____	160	167	94
Total concentrates	_____	2512	3183	1520
Total dry roughage	_____	4214	4455	3859
Silage	_____	6826	7378	7022
Total digestible nutrients*	_____	5105	5644	4257
T.D.N. per lb. B.F.	_____	18.2	15.7	20.7
% T.D.N. that is protein	_____	13.3	13.5	13.1
Feed cost per cow:				
Concentrates	$_____	$76.50	$99.60	$44.43
Roughages	_____	58.76	63.75	56.16
Pasture	_____	6.16	5.89	6.41
TOTAL FEED COSTS	$_____	$141.42	$169.24	$107.00
Value of produce per cow:				
B.F. Sales	$_____	$244.66	$324.49	$162.58
Dairy produce used in house	_____	9.78	9.32	13.93
Milk to livestock	_____	15.22	13.59	19.87
Net increases in value of cows	_____	24.82	32.65	20.94
TOTAL VALUE PRODUCED	$_____	$294.48	$380.05	$217.32
RETURNS ABOVE FEED COST PER COW	$_____	$153.06	$210.81	$110.32
RETURNS FOR $100 OF FEED	$_____	$217.00	$232.00	$213.00
Feed cost per lb. B.F. (cents)	_____	50.6	45.5	52.4
% fall freshening	_____	55.4	63.3	50.6
Number of cows**	_____	18.2	18.9	16.9

*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 17. Feed Costs and Returns from Other Dairy Cattle, 1947

Items	Your farm	Average of 144 farms*	29 farms highest in butterfat per cow	29 farms lowest in butterfat per cow*
Feeds per head, lbs.:				
Concentrates	_____	575	643	348
Hay and fodder	_____	1626	1650	1538
Silage	_____	2399	2104	2892
Skim milk	_____	221	142	471
Whole milk	_____	341	314	396
TOTAL FEED COSTS PER HEAD	$_____	$54.58	$56.06	$50.20
Net inc. in value of other dairy cattle	_____	$63.73	$76.93	$58.65
RETURNS ABOVE FEED COST PER HEAD	$_____	$9.15	$20.87	$8.45
RETURNS FOR $100 OF FEED	$_____	$124.00	$152.00	$127.00
Number of head of other dairy cattle	_____	17.9	19.9	16.1

Table 18. Feed Costs and Returns From All Dairy Cattle, 1947

Items	Your farm	Average of 146 farms	29 farms highest in butterfat per cow	29 farms lowest in butterfat per cow
Feeds per animal unit, lbs.:				
Concentrates	_____	2011	2464	1223
Hay and fodder	_____	3831	3962	3499
Silage	_____	6040	6119	6603
TOTAL FEED COSTS PER ANIMAL UNITS	$_____	$119.60	$138.13	$92.38
Value of produce per animal unit:				
Dairy products	$_____	$170.01	$215.63	$120.62
Net increase in val. of dairy cattle	_____	56.64	73.41	50.23
TOTAL VALUE PRODUCED	$_____	$226.65	$289.04	$170.85
RETURNS ABOVE FEED PER ANIMAL UNIT	$_____	$107.05	$150.91	$78.47
RETURNS PER $100 OF FEED	$_____	$195.00	$209.00	$195.00
Animal units of dairy cattle	_____	27.4	29.3	25.3

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

Table 19. Factors of Cost and Returns from Dual Purpose Cows, 1947

Items	Your farm	Average of 15 farms	7 farms highest in butterfat per cow	7 farms lowest in butterfat per cow
Pounds of butterfat per cow	_____	180	223	136
% butterfat in milk	_____	3.7	3.7	3.8
Price received per lb. B.F. sold (cents)	_____	84.2	86.9	82.3
As manufacturing cream (cents)	_____	80.6	82.3	79.7
Other (cents)	_____	93.4	92.5	97.4
Feeds per cow, lbs.:				
Corn	_____	737	824	539
Small grain	_____	454	541	336
Commercial feeds	_____	157	174	161
Legume hay	_____	2492	2717	2534
Other hay	_____	860	557	1155
Fodder and stover	_____	345	335	405
Total concentrates	_____	1348	1539	1036
Total dry roughage	_____	3697	3609	4094
Silage	_____	5490	5749	4856
Total digestible nutrients*	_____	3792	3940	3639
T.D.N. per lb. B.F.	_____	21.1	17.7	26.8
% T.D.N. that is protein	_____	12.6	13.1	12.5
Feed cost per cow:				
Concentrates	$_____	$39.55	$44.35	$31.54
Roughages	_____	47.98	49.36	48.34
Pasture	_____	6.30	6.01	6.62
TOTAL FEED COSTS	$_____	$93.83	$99.72	$86.50
Value of produce per cow:				
B.F. sales	_____	$130.31	$167.14	$94.66
Dairy produce used in house	_____	11.14	11.11	10.36
Milk to livestock	_____	20.65	21.79	20.37
Net increases in value of cows	_____	38.50	42.14	32.68
TOTAL VALUE PRODUCED	$_____	$200.60	$242.18	$158.07
RETURNS ABOVE FEED COST PER COW	$_____	$106.77	$142.46	$71.57
RETURNS FOR $100 OF FEED	$_____	$226.00	$252.00	$204.00
Feed cost per lb. B.F. (cents)*	_____	52.1	44.7	63.6
% fall freshening	_____	51	69	41
Number of cows	_____	14.3	15.0	14.0

*Not including nutrients received from pasture.

Table 20. Feed Costs and Returns from Other Dual Purpose Cattle, 1947

Items	Your farm	Average of 15 farms	7 farms highest in returns above feed	7 farms lowest in returns above feed
Feeds per head, lbs.:				
Concentrates	_____	506	443	548
Hay and fodder	_____	1418	1283	1559
Silage	_____	1879	2397	1463
Skim milk	_____	634	555	804
Whole milk	_____	261	236	260
TOTAL FEED COST PER HEAD	$_____	$45.88	$42.80	$47.82
Net increa se in value	_____	$53.29	$67.56	$37.66
RETURNS ABOVE FEED COST PER HEAD	$_____	7.41	24.76	-10.16
RETURNS FOR $100 OF FEED	_____	$122.00	$160.00	$85.00
Number of head	_____	23.8	24.3	22.6

Table 21. Feed Costs and Returns From All Dual Purpose Cattle, 1947

Items		Average of 15 farms	7 farms highest in returns above feed	7 farms lowest in returns above feed
Pounds of butterfat per cow	_____	180	197	167
Feeds per animal unit, lbs.:				
Concentrates	_____	1178	1066	1333
Hay and fodder	_____	3187	2934	3086
Silage	_____	4672	3895	6116
TOTAL FEED COSTS PER ANIMAL UNIT	$_____	$80.25	$70.08	$91.50
Value of produce per animal unit:				
Dairy products	_____	$78.39	$91.66	$68.28
Net increase in value	_____	65.47	77.60	51.90
TOTAL VALUE PRODUCED	_____	$143.86	$169.26	$120.18
RETURNS ABOVE FEED PER ANIMAL UNIT	$_____	63.61	99.18	28.68
RETURNS FOR $100 OF FEED	$_____	$190.00	$247.00	$135.00
Animal units	_____	26.6	23.3	29.6

Table 22. Feed Costs and Returns From Beef Cattle, 1947

Items	Your farm	Average of all farms
Beef breeding herd: no. of farms:		10
Feeds per animal unit, lbs:		
Concentrates	_____	1380
Legume hay	_____	1540
Other hay	_____	673
Fodder and stover	_____	344
Silage	_____	3718
Feed cost per animal unit:		
Concentrates	$_____	$42.46
Roughages	_____	32.19
Pasture	_____	5.55
TOTAL FEED COSTS	$_____	$80.20
Value of produce per animal unit:		
Dairy products	$_____	$11.24
Net increase in value of animals	_____	114.43
TOTAL VALUE PRODUCED	_____	$125.67
RETURNS ABOVE FEED COST PER ANIMAL UNIT	_____	$45.47
RETURNS FOR $100 OF FEED	$_____	$168.00
Number of cows and herd bulls	_____	19.2
Number of animal units in the herd	_____	30.9
Lbs. beef produced	_____	14560
Feeder cattle: no. of farms:		12
Feeds per cwt. beef produced, lbs.:		
Corn	_____	731
Small grain	_____	66
Commercial feeds	_____	42
Legume hay	_____	393
Other hay	_____	89
Fodder and stover	_____	57
Total concentrates	_____	839
Total dry roughages	_____	539
Silage	_____	539
Feed cost per cwt. beef produced		
Concentrates	$_____	$24.29
Roughages	_____	6.42
Pasture	_____	.53
TOTAL FEED COSTS	$_____	$31.24
Net increase in value of feeders	$_____	$38.62
RETURNS ABOVE FEED COST PER CWT. BEEF PRODUCED	_____	7.38
RETURNS FOR $100 OF FEED	_____	$150.00
Price recd. per cwt. beef sold in 1947	_____	21.94
Price paid per cwt. beef bought	$_____	21.91
No. of animal units	_____	22.5
Pounds of beef produced	_____	10075

Table 23. Feed Costs and Returns from Chickens, 1947

Items	Your farm	Average of 153 farms	31 farms highest in return above feed	31 farms lowest in return above feed
Feed per hen, lbs.:				
Grain	_____	109	115	127
Commercial feeds	_____	45	51	46
Total concentrates	_____	154	166	173
Skim milk and buttermilk	_____	6	3	8
TOTAL FEED COST PER HEN	$_____	$5.53	$5.28	$6.38
Value of produce per hen:				
Eggs sold and used in house	$_____	$6.08	$7.59	$4.76
Net increase in value of chickens	_____	.79	1.28	.62
TOTAL VALUE PRODUCED	_____	$6.87	$8.87	$5.38
RETURNS ABOVE FEED COST PER HEN	$_____	$1.34	$3.59	-$1.00
RETURNS FOR $100 OF FEED	$_____	$128.00	$174.00	$85.00
Price rec'd per doz. eggs sold (cents)	_____	41.7	43.0	40.9
Eggs laid per hen	_____	177	214	144
Ave. no. of hens on farm during the yr.	_____	261	279	217
% of hens that are pullets	_____	86	92	83
% of death loss of hens	_____	13	11	17
Number of chicks put on feed	_____	543	584	559
Price paid per 100 chicks purchased	_____	$25.57	$27.22	$22.92
Pounds of poultry produced	_____	1400	1800	1008

Table 24. Feed Costs and Returns for Turkeys, 1947

Items	Your farm	Average of 6 farms
Feed per cwt. turkeys produced, lbs.:		
Grain	_____	408
Commercial feeds	_____	268
Total concentrates	_____	676
Skim milk	_____	17
Feed cost per cwt. turkeys produced	$_____	$27.70
Value of produce per cwt. turkeys prod.		
Eggs and poults	$_____	$ .96
Net increa ses in turkeys	_____	$31.48
TOTAL VALUE PRODUCED	$_____	$32.44
RETURNS ABOVE FEED COST PER CWT. TURKEYS PRODUCED	$_____	4.74
RETURNS FOR $100 FEED	$_____	$123.00
Price rec'd per lb. turkey sold (cts.)	_____	36.0
No. of poults put on feed	_____	2017
Price paid per poult purchased (cts.)	_____	77.0
Weight per bird sold, lbs.	_____	16.8
% death loss	_____	18.3
Pounds of turkeys produced	_____	28109

Table 25. Feed Costs and Returns from a Farm Flock of Sheep, 1947

Items	Your farm	Average of 39 farms	10 farms highest in returns above feed	10 farms lowest in returns above feed
Feeds per head, *lbs.:				
Concentrates	_____	57	26	42
Legume hay	_____	175	62	248
Other hay	_____	99	132	61
Fodder and stover	_____	21	14	31
Silage	_____	163	160	185
Feed cost per head:				
Concentrates	$_____	$1.60	$.79	$1.25
Roughages	_____	2.84	1.78	3.51
Pasture	_____	1.10	1.24	1.04
TOTAL FEED COSTS	$_____	$5.54	$3.81	$5.80
Value of produce per head:				
Wool	_____	$2.40	$2.68	$2.52
Net increase in value of sheep	_____	10.47	15.28	4.19
TOTAL VALUE PRODUCED	$_____	$12.87	$17.96	$6.71
RETURNS ABOVE FEED COST PER HEAD	_____	$ 7.33	$14.15	$ .91
RETURNS FOR $100 OF FEED	$_____	$284.00	$544.00	$127.00
Price per cwt. of lambs sold	$_____	$21.74	$21.90	$20.82
Price per lb. wool sold (cts.)	_____	37.0	36.9	37.1
Pounds of wool per sheep sheared	_____	8.7	9.5	8.6
Number of ewes kept for lambing	_____	29	18	35
% lamb crop**	_____	102	108	89
% death loss**	_____	8.0	7.5	12.9
Pounds of sheep produced	_____	2149	1567	1822
No. of head of sheep*	_____	46.4	26.0	57.5

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

TOTAL RETURNS AND FEED COST FROM YOUR LIVESTOCK ENTERPRISES

The total "return over feed costs" for each class of livestock is shown in Table 26. This differs from the "return over feed" shown in the enterprise statement in that it is the total for each class of livestock instead of a return "per head" "per unit" or per "100 pounds". These data indicate the relative importance of different classes of livestock as a source of income and as a market for feed. The total return is the same as the returns and net increases shown on page 9. The return over feed is not a net return but rather the amount available from the gross income, after paying the feed bill, to cover the outlay for hired labor, power, equipment, taxes, insurance, interest, and veterinary bills and to provide a return for the use of family labor and capital.

Table 26. Total Feed Costs and Returns From Your Livestock Enterprises, 1947

	Dairy or dual purpose cattle			Beef breeding herd	Feeder cattle
	Cows	Other	All		
Total returns	_____	_____	_____	_____	_____
Total feed cost	_____	_____	_____	_____	_____
Total return over feed	_____	_____	_____	_____	_____

		Sheep			
	Hogs	Farm flock	Feeders	Turkeys	Chickens
Total returns	_____	_____	_____	_____	_____
Total Feed cost	_____	_____	_____	_____	_____
Total return over feed	_____	_____	_____	_____	_____

Feed is the largest single item of cost for all classes of livestock. However, the proportion of the total cost represented by feed varies considerable between classes of livestock. Feed makes up approximately 45 per cent of the total costs of maintaining dairy cattle and poultry, 50 per cent in the case of a farm flock of sheep and 75 to 90 per cent for hogs, feeder cattle and feeder lambs. Consequently, it is necessary to secure a relatively higher return over feed from dairy cattle and poultry than from the other livestock enterprises in order to be able to cover all the costs other than feed.

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 27.

Table 27. 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	14.0 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	1.1 per acre
Sheep - farm flock	1.8 per an. unit*	Corn, hogged	.7 per acre
Sheep - feeders	.4 per 100 lbs.	Corn, shredded	2.2 per acre
Hogs	.3 per 100 lbs.	Corn silage	1.7 per acre
Turkeys	.7 per 100 lbs.	Corn fodder	1.0 per acre
Hens	22.0 per 100 hens	Alfalfa hay	.9 per acre
Canning peas	2.0 per acre	Soybean hay	1.4 per acre
Soybeans for grain	.7 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 28. Summary by Years

	Average 1928-29	Average 1930-32	Average 1933-39	1940	1941	1942	1943	1944	1945	1946	1947
Number of farms	148	157	139	148	197	201	177	161	170	170	170
Acres in farm	170	194	214	225	227	230	224	229	224	222	223
Crop acres in farm	116	134	144	148	147	150	148	145	145	149	146
Farm inventory	$24574	$21767	$19341	$24044	$24117	$26088	$27278	$28034	$27634	$29020	$31183
Farm Earnings (see page 28)											
FARM EXPENSES											
Cattle	$ 141	$ 79	$ 177	$ 607	$ 421	$ 444	$ 374	$ 357	$ 372	$ 333	$ 436
Hogs bought	85	69	59	60	121	203	205	182	168	158	226
Sheep bought	6	10	73	82	45	53	62	80	108	86	65
Poultry bought	37	39	70	100	118	132	167	194	210	195	149
Horses bought	36	32	40	28	32	34	34	30	17	17	11
Misc. livestock expense	66	72	82	78	101	123	161	155	165	198	250
Misc. crop expenses	186	177	197	182	202	284	364	472	463	551	780
Feed bought	440	324	467	600	820	1416	1799	1730	1764	1920	2224
Custom work hired	-	-	-	123	115	164	185	240	273	363	400
Power mach. (new & exp.)	399	340	483	604	821	696	647	818	855	1135	1515
Mach. and equip. (new)	190	132	231	296	470	464	348	384	515	524	823
Mach. and equip. (upkeep)	72	57	63	68	90	166	188	208	231	257	303
Bldgs., fencing (new)	130	98	191	352	313	245	361	382	249	431	897
Bldgs., fencing (upkeep)	52	29	66	84	164	226	228	236	200	277	354
Hired labor	272	252	350	404	454	571	693	805	663	740	893
Taxes and insurance	298	338	280	276	280	313	312	332	338	384	425
General farm	30	31	32	42	43	46	63	67	72	79	94
Total farm purchases	$2,440	$2,079	$2,861	$3,986	$4,610	$5,580	$6,191	$6,672	$6,663	$7,648	$9,845
Decrease in farm capital	-	755	-	-	-	-	-	511	238	-	-
Board to hired labor	102	93	125	141	145	177	171	156	108	147	201
Interest on farm capital	1,228	1,089	967	1,202	1,206	1,304	1,364	1,402	1,382	1,451	1,559
Unpaid family labor	358	292	233	269	278	304	386	395	441	506	582
Total farm expenses	$4,128	$4,308	$4,186	$5,598	$6,239	$7,365	$8,112	$9,136	$8,832	$9,752	$12,187

Table 28. Summary by Years (continued)

	Average 1928-29	Average 1930-32	Average 1933-39	1940	1941	1942	1943	1944	1945	1946	1947
FARM RECEIPTS											
Cattle	$ 753	$ 467	$ 617	$1,176	$1,215	$1,514	$1,280	$1,492	$1,439	$1,520	$2,108
Dairy products	1,662	1,209	1,366	1,454	1,720	2,078	2,475	2,961	3,403	4,192	4,129
Hogs	1,164	950	926	984	1,778	3,104	3,551	3,168	2,573	2,863	4,362
Sheep and wool	52	39	169	162	173	177	203	214	230	265	224
Poultry	140	139	331	339	583	722	688	814	787	954	609
Eggs	275	232	340	405	523	765	1,040	1,022	1,265	1,172	1,410
Horses	30	30	46	48	31	34	31	28	23	20	23
Corn	37	39	137	128	88	111	137	143	175	207	402
Small grain	241	140	322	235	262	312	320	261	239	372	904
Other crops	163	170	162	250	287	457	520	762	776	705	1033
Income labor off farm	102	112	157	148	146	119	146	145	168	168	173
Agric. adj. payments	0	0	218	324	331	343	190	81	48	67	65
Misc.	134	151	210	295	342	269	214	290	300	431	505
(7) Total farm sales	$4,753	$3,678	$5,001	$5,948	$7,479	$10,005	$10,795	$11,381	$11,426	$12,936	$15,947
(8) Increase in farm cap.	617	-	534	1,017	1,432	1,498	1,167	-	-	1,706	3,542
(9) Fam. living from farm	325	248	254	458	505	576	643	646	639	700	741
(10) Total farm receipts	5,695	3,926	5,789	7,423	9,416	12,079	12,605	12,027	12,065	15,342	20,230
(6) Total farm expenses	4,128	4,308	4,186	5,598	6,239	7,365	8,112	9,136	8,832	9,752	12,187
(11) Oper. lab. earnings	1,567	-382	1,603	1,825	3,177	4,714	4,493	2,891	3,233	5,590	8,043
MISCELLANEOUS ITEMS											
Yield per A. corn (bu.)	44.8	43.5	46.1	56.3	57.6	61.2	51.8	51.6	34.0	50.7	41.6
Yield per A. barley (bu.)	36.0	30.1	26.3	41.0	29.0	28.1	16.2	9.8	32.7	31.0	29.4
Yield per A. oats. (bu.)	46.0	48.1	39.0	58.2	31.5	49.3	42.7	39.1	48.3	43.1	47.5
Yield per A. alfalfa (tons)	3.0	2.6	2.2	2.3	2.6	2.7	2.4	2.1	2.5	2.2	2.4
% high return crops	31.9	34.1	40.2	41.4	41.0	43.5	41.1	49.3	47.1	50.3	50.2
A.U. livestock per 100 A.	19.2	20.7	19.6	23.4	24.6	25.2	25.4	23.8	23.4	22.8	22.6
No. of work units	599	729	777	658	664	690	671	666	645	634	573
Work units per worker	310	339	339	292	301	316	305	303	323	317	287
Expenses per work unit	$1.76	$1.34	$1.30	$1.66	$1.87	$2.23	$2.79	$3.21	$3.32	$3.81	$4.74
No. of work horses	5.4	5.4	4.8	4.1	4.0	3.9	3.8	3.5	3.2	2.8	2.5
No. of colts	.8	.8	1.0	1.0	.9	.9	.7	.7	.5	.3	.2
No. of milk cows	14.2	17.1	18.1	17.1	17.4	18.1	17.5	17.9	17.3	16.7	16.9

Table 28. Summary by Years (continued)

Misc. items (cont.)	Average 1928-29	Average 1930-32	Average 1933-39	1940	1941	1942	1943	1944	1945	1946	1947
No. of litters of pigs	9.3	11.7	9.5	12.1	13.8	15.7	18.1	12.1	12.3	9.1	11.0
Lbs. of hogs produced	12,706	16,219	13,471	17,671	20,330	24,383	25,149	20,398	18,669	15,516	17,686
No. of head of sheep	7.0	11.5	18.2	18.6	16.1	16.2	15.2	12.7	11.3	11.3	11.0
No. of hens	136	156	184	197	197	219	246	250	247	240	239
Lbs. B.F. per dairy cow	244	241	238	260	261	253	247	237	254	266	281
Lbs. B.F. per dual pur.cow	-	-	-	181	203	189	182	169	173	170	180
Pigs weaned per litter	6.3	6.2	6.3	6.3	6.3	6.3	6.0	6.1	6.3	6.5	6.2
No. of eggs laid per hen	95	112	127	131	142	146	147	157	168	173	177
PRICE RECEIVED PER:											
Lb. B.F. sold as cream	$ .52	$ .30	$ .31	$ .33	$ .39	$ .45	$ .55	$ .61	$ .65	$ .82	$ .83
Cwt. hogs sold	8.92	5.82	6.96	5.27	9.20	13.24	13.88	13.08	14.24	17.23	24.54
Cwt. feeder cattle sold	-	-	-	8.67	9.72	11.69	13.84	13.84	13.86	15.53	21.94
Lb. wool sold	.36	.13	.24	.31	.40	.41	.42	.43	.44	.46	.37
Doz. eggs sold	.28	.17	.17	.17	.22	.29	.36	.32	.37	.35	.42
Lb. turkey sold	-	-	.19	.16	.21	.29	.33	.34	.33	.33	.36
RETURN ABOVE FEED COST PER:											
Dairy cow	$76.50	$28.16	$43.72	$58.05	$71.65	$84.86	$93.27	$101.31	$125.85	$178.55	$153.06
Dual purpose cow	-	-	-	31.69	52.01	55.88	57.81	60.36	74.15	110.58	106.77
Cwt. hogs produced	1.50	.30	2.34	1.50	5.41	7.09	2.90	2.77	4.26	7.04	8.19
Head of sheep	5.50	-.07	2.62	3.43	5.48	5.77	4.51	3.98	5.05	8.52	7.33
Hen	1.82	1.13	1.02	.92	1.66	2.16	2.55	1.82	2.66	2.05	1.34
Cwt. turkeys prod.	-	-	10.51	6.30	10.72	16.56	14.89	19.24	14.30	9.85	4.74
FEED COST PER:											
Dairy cow	$69.50	$52.27	$43.47	$43.22	$49.10	$58.29	$77.61	$87.44	$95.32	$106.99	$141.42
Dual purpose cow	-	-	-	36.29	39.50	50.39	62.90	71.32	69.93	69.97	93.83
Cwt. hgos produced	7.66	4.50	4.72	4.11	5.17	7.16	10.21	10.93	9.97	12.77	17.99
Head of sheep	2.82	2.26	2.56	2.61	2.57	3.01	4.34	3.96	4.60	4.40	5.54
Hen	1.62	1.09	1.47	1.36	1.80	2.27	3.03	3.42	3.56	4.11	5.53
Cwt. turkeys prod.	-	-	8.04	9.06	9.33	11.90	17.66	16.35	15.28	19.93	27.70
Horse	55.09	36.13	35.67	31.33	35.49	40.25	50.93	49.60	43.79	41.67	48.56
PRICE OF FEED:											
Corn (per bu.)	$ .70	$ .49	$ .53	$ .46	$ .52	$ .69	$ .91	$ .98	$ .88	$ 1.17	$ 1.76
Barley (per bu.)	.60	.36	.50	.31	.38	.57	.79	.92	.94	1.22	1.82
Oats (per bu.)	.48	.25	.28	.26	.32	.44	.62	.68	.64	.71	.92
Bran (per cwt.)	1.70	1.00	1.14	1.20	1.45	1.95	2.10	2.20	2.20	2.70	3.20
Oilmeal (per cwt.)	3.00	2.00	2.05	1.75	2.00	2.30	2.55	2.82	2.82	3.40	4.50
Alfalfa (per ton)	14.75	12.00	9.45	7.50	8.00	8.00	11.00	15.00	15.00	15.50	21.50

Footnote for pages 30, 31 and 32.

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 decreased 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 1947.

The charges for unpaid family labor and board for hired labor were also changed from year to year. The rates used for the period 1928 to 1947 were as follows:

Year	Unpaid family labor	Board for hired labor	Year	Unpaid family labor	Board for hired labor
1928	$60	$20	1938	$45	$18
1929	60	20	1939	45	18
1930	60	20	1940	45	18
1931	40	15	1941	50	20
1932	30	10	1942	60	25
1933	30	10	1943	75	25
1934	30	10	1944	85	25
1935	40	15	1945	90	25
1936	43	18	1946	100	30
1937	45	18	1947	125	36

Several changes were made in the 1940 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 the 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.

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

These adjustments should be considered in comparing 1947 results with previous years.