



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

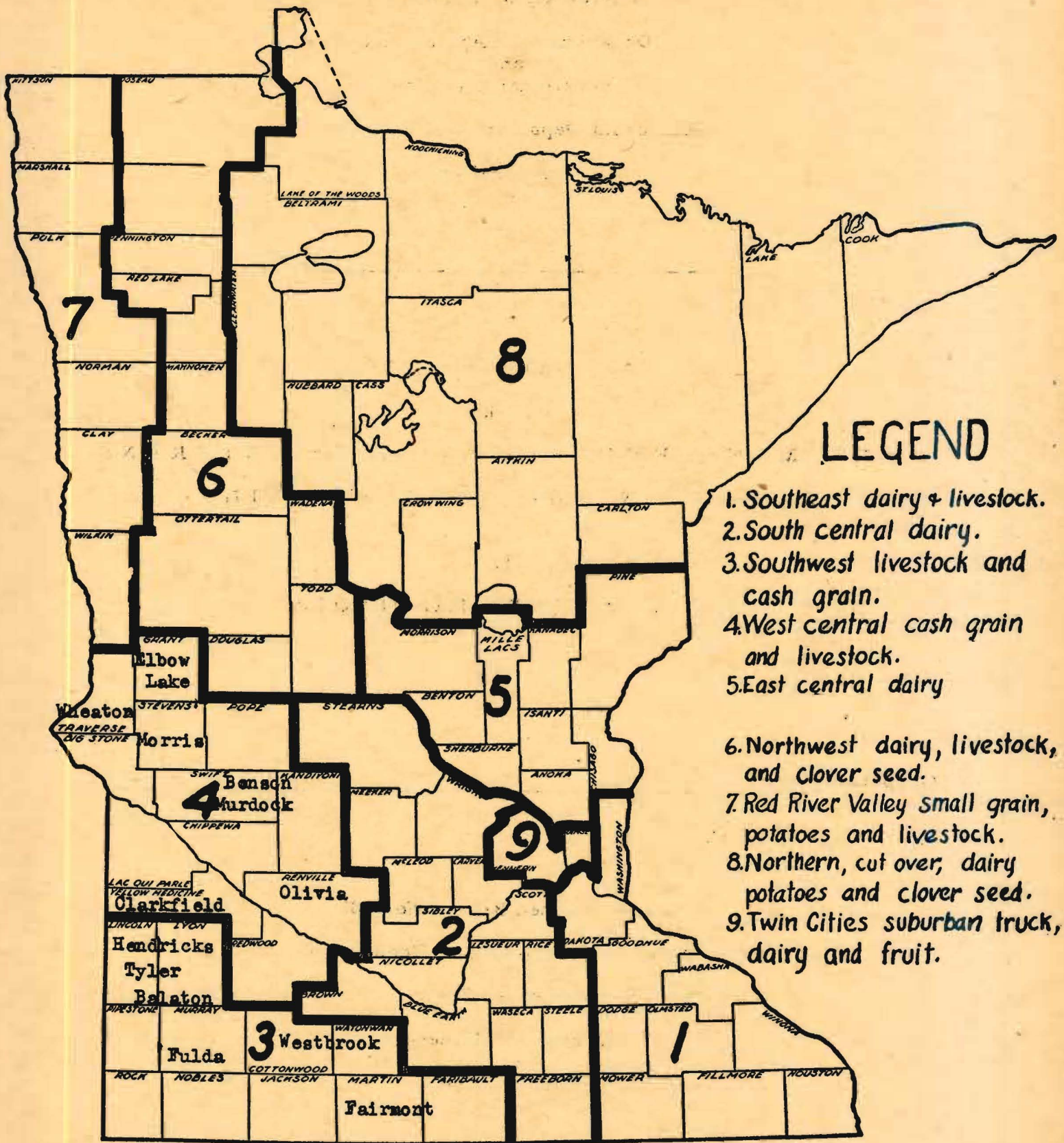
*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

University of Minnesota
Department of Agriculture
and
Vocational Division
Minnesota Department of Education
Cooperating

ANNUAL REPORT
of the
FARM MANAGEMENT SERVICE for VETERANS
TAKING ON-THE-FARM TRAINING
in
SOUTHWESTERN MINNESOTA
1949

Cooperator: _____

Mimeographed Report No. 182
Division of Agricultural Economics
University Farm
St. Paul 1, Minnesota
July, 1950



LEGEND

1. Southeast dairy & livestock.
2. South central dairy.
3. Southwest livestock and cash grain.
4. West central cash grain and livestock.
5. East central dairy
6. Northwest dairy, livestock, and clover seed.
7. Red River Valley small grain, potatoes and livestock.
8. Northern, cut over, dairy potatoes and clover seed.
9. Twin Cities suburban truck, dairy and fruit.

Type of Farming Areas in Minnesota and Location of Schools Submitting Farm Records for this Report

REPORT OF THE FARM MANAGEMENT SERVICE FOR VETERANS TAKING ON-THE-FARM
TRAINING IN SOUTHWESTERN MINNESOTA, 1949

T. R. Nodland, G. A. Pond and B. F. Stanton

INDEX

	Page
Introduction	1
Farm Inventories	2
Farm Earnings	2
Family Living From the Farm	6
Household and Personal Expenses and Receipts	6
Net Worth	7
Returns to Capital and Family Labor	9
Management Factors and Their Relation to Earnings	10
Cumulative Effect of Excelling in a Number of Management Factors	12
Explanation of "Work Units"	13
Measures of Farm Organization and Management Efficiency	14
Thermometer Chart	15
Distribution of Acres in Farm	16
Crop Yields Per Acre	17
Power and Machinery Expenses	17
Amount of Livestock	18
Total Feed Costs and Returns From Livestock Enterprises	18
Dairy and Dual Purpose Cattle	19
Hogs	22
Chickens	22
Beef Breeding Herd	24
Feeder Cattle	24
Sheep	25
Summary of Farm Inventories by Years	25
Summary of Farm Earnings by Years	26
Summary of Acres and Crop Yields by Years	27
Summary of Miscellaneous Items by Years	28

INTRODUCTION

In the fall of 1946, the Vocational Division of the Minnesota Department of Education asked the University of Minnesota to set up a farm management service for veterans taking on-the-farm training in the public schools throughout the state. The service was initiated on January 1, 1947. The cooperating agencies are the Division of Agricultural Economics, University of Minnesota, and the Vocational Division, Minnesota Department of Education representing the public schools.

The purpose of the project as far as the schools are concerned is (1) to give assistance to the instructors in the mechanics of keeping farm records, and (2) to aid in the analysis of the farm business through the use of records as a basis for vocational guidance. Schools with an on-the-farm training program can enroll their students in the farm management service. The enrollment is on a voluntary basis insofar as the number of schools participating and the number of veterans enrolled in the service are concerned.

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. The State Department of Education was represented by G. R. Cochran, State Supervisor of Agricultural Education. At the end of the year, W. E. McDaniel, Richard Nelson, Richard Zoller and James Tyvand of the Division of Agricultural Economics aided in closing and summarizing the records.

This report deals with the veterans enrolled by thirteen schools located in southwestern Minnesota (Type-of-Farming Area 3 and 4).¹ The map on the inside front cover of this report shows the location of the schools. The following tabulation shows by schools the number of farm records submitted in 1949:

Balaton	3	Morris	11
Benson	10	Murdock	4
Clarkfield	4	Olivia	3
Elbow Lake	10	Tyler	4
Fairmont	10	Westbrook	8
Fulda	1	Wheaton	13
Hendricks	9	Total	90

The subsequent pages in this report show the data for 88 farms. Two farms were omitted from all the averages in the tables because the records were not sufficiently complete for a full analysis.

The records kept by the enrollees included farm inventories at the beginning and at the end of the year, cash farm receipts and expenses, feed consumed by the various classes of livestock, family living received from the farm, liabilities and assets other than the farm capital and household and personal cash expenses and receipts.

Only records from actual farm operators are included in this report. All types of tenure arrangements from full owners to partnerships in which the operator furnishes little or no capital are represented.

FARM INVENTORIES

The capital investment per farm varied from \$8978 to \$47872. The average investment for all farm included in this report and for the one-fifth high and the one-fifth low in operator's labor earnings is shown in Table 1.

Landlords or partners supplied some capital in 76 out of the 88 cases included in this report. The landlord's investment has been included in Table 1 in order to show the total amount used per farm.

FARM EARNINGS

Operator's labor earnings is a measure of the relative financial success of a farmer as compared with other farmers and represents the returns above all farm expenses and a charge for the use of farm capital. For purposes of comparison, the earnings are presented on a full-owner basis.

There are two methods of computing operator's labor earnings. Table 2 shows the earnings statement on a cash basis and Table 3 shows the earnings on an enterprise or accrual basis. The principal difference in the two statements is in the method of handling the net increase or decrease in the value of farm capital. In the cash statement the net increase or decrease in farm capital is entered as one item. In the enterprise statement the net change in the inventory has been included in each enterprise in order to compute "total returns and net increases", or "total expenses and net decreases" by enterprises.

1. For a description of the area, see Engene, S. A. and Pond, G. A. "Agricultural Production and Types of Farming in Minnesota." Minn. Agri. Expt. Sta. Bul. 347 May, 1940.

Table 1. Summary of Farm Inventories, 1949*

Items	Your farm		Average of 88 farms	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31
Size of Farm (acres)			220	
Size of business (work units)**			315	
Dairy and dual purpose cows			\$ 665	\$ 738
Other dairy & dual purpose cattle			391	439
Beef cattle			498	518
Hogs			862	707
Sheep			52	60
Poultry			170	185
Productive livestock (total)			2638	2647
Horses			61	41
Crop, seed, and feed			2210	2292
Power mach. (farm share)			1604	1852
Crop & general mach. (farm share)			1429	1849
Livestock equip. (bot...)			254	287
Mach. and equipment (total)			3287	3988
Misc.			-	-
Buildings, fences, etc.			5426	5540
Land			10177	10177
Total farm capital			23799	24685

Items	18 most profitable farms		18 least profitable farms	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31
Size of farm (acres)	260		182	
Size of business (work units)**	358		298	
Dairy & dual purpose cows	\$ 606	\$ 609	\$ 838	\$ 995
Other dairy & dual purpose cattle	211	247	777	618
Beef cattle	1235	1070	163	106
Hogs	1106	846	838	793
Sheep	110	101	13	8
Poultry	203	232	144	149
Productive livestock (total)	3471	3105	2773	2669
Horses	77	78	53	38
Crop, seed, and feed	2914	3089	2052	1735
Power mach. (farm share)	1484	1833	1614	1829
Crop & general mach.	1489	2240	1480	1695
Livestock equipment & supplies	362	356	279	393
Mach. & equipment (total)	3335	4429	3373	3917
Miscellaneous	-	-	-	-
Buildings, fences, etc.	5211	5086	4821	5246
Land	11802	11802	9638	9638
Total farm capital	26810	27589	22710	23243

* For the purpose of comparison, all the data shown in this report with the exception of Table 6 and 7 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 2. Summary of Farm Earnings (Cash Statement), 1949

Items	Your farm	Average of 88 farms	18 most profitable farms	18 least profitable farms
FARM RECEIPTS				
Dairy and dual-purpose cows	_____	\$ 173	\$ 155	\$ 298
Dairy products	_____	555	527	768
Other dairy & dual-purpose cattle	_____	249	77	525
Beef cattle	_____	467	1283	131
Hogs	_____	2097	2421	2202
Sheep and wool	_____	65	68	13
Poultry	_____	156	155	119
Eggs	_____	785	989	553
Horses	_____	7	4	17
Corn	_____	1210	1731	617
Small grain	_____	1477	2628	752
Other crops	_____	284	474	233
Machinery & equip. sold	_____	265	161	416
Agricultural adjustment payments	_____	14	22	11
Income from work off the farm	_____	134	131	103
Miscellaneous	_____	18	15	55
(1) Total farm sales	_____	7956	10841	6813
(2) Increase in farm capital	_____	886	779	533
(3) Family living from the farm	_____	391	383	369
(4) Total farm receipts (1)+(2)+(3)	_____	9233	12003	7715
FARM EXPENSES				
Dairy and dual-purpose cows bought	_____	\$ 140	\$ 124	\$ 140
Other dairy and dual-pur. cattle bot.	_____	76	70	65
Beef cattle bought	_____	176	265	42
Hogs bought	_____	223	214	251
Sheep bought	_____	26	2	-
Poultry bought	_____	97	134	67
Horses bought	_____	6	10	2
Misc. livestock expense	_____	96	127	98
Misc. crop expenses	_____	436	501	371
Feed bought	_____	741	665	901
Custom work hired	_____	291	343	259
Mech. power mach. (farm share)(new)	_____	696	711	890
Mech. power mach. (farm share)(upkp.)	_____	215	196	242
Mech. power (f.share)(gas, oil, etc.)	_____	664	694	568
Crop and general mach. (new)	_____	729	964	497
Crop and general mach. (upkeep)	_____	137	157	128
Livestock equipment (new)	_____	112	191	175
Livestock equipment (upkeep)	_____	36	41	41
Buildings and fencing (new)	_____	418	172	765
Buildings and fencing (upkeep)	_____	124	96	233
Hired labor	_____	178	195	128
Taxes	_____	299	318	285
General farm and insurance	_____	61	55	67
(5) Total farm purchases	_____	5977	6245	6215
(6) Decrease in farm capital	_____	-	-	-
(7) Interest on farm capital	_____	1212	1360	1149
(8) Unpaid family labor	_____	329	392	477
(9) Board furnished hired labor	_____	56	42	40
(10) Total farm exp. (sum of (5) to (9))	_____	7574	8039	7881
(11) Oper. labor earnings (4) - (10)	_____	1659	3964	-166

Table 3. Summary of Farm Earnings (Enterprise Statement) 1949*

Items	Your farm	Average of 88 farms	18 most profitable farms	18 least profitable farms
RETURNS AND NET INCREASES				
Dairy and dual purpose cows	_____	\$ 686	\$ 615	\$ 994
Other dairy & dual pur.cattle	_____	386	172	590
Beef breeding herd	_____	143	447	7
Feeder cattle	_____	165	377	47
Hogs	_____	1757	2004	1938
Sheep - farm flock	_____	47	57	8
Chickens	_____	905	1091	659
All productive livestock	_____	4089	4763	4243
Crops, seed and feed	_____	1831	3831	49
Agricultural conservation payments	_____	14	22	11
Income from labor off the farm	_____	68	57	67
Miscellaneous	_____	126	130	122
(1) Total returns & net increases	_____	6128	8803	4394
EXPENSES AND NET DECREASES				
Horses	_____	\$ 33	\$ 46	\$ 35
Tractor	_____	638	646	562
Truck	_____	69	29	98
Auto (farm share)	_____	343	374	357
Gas engine and elect. exp.(f.shr.)	_____	52	59	54
Hired power	_____	104	138	94
Total power	_____	1239	1292	1200
Crop and general machinery	_____	470	527	457
Livestock equipment	_____	85	99	100
Buildings, fencing, and tiling	_____	360	336	477
Misc. productive livestock exp.	_____	95	127	98
labor	_____	648	725	727
Real estate taxes	_____	263	280	245
Personal property tax	_____	36	38	40
Insurance	_____	27	18	23
General farm	_____	34	37	44
Interest on farm capital	_____	1212	1360	1149
(2) Total expenses & net decreases	_____	4469	4839	4560
(3) Oper. labor earnings(1)-(2)	_____	1659	3964	-166

* 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.

FAMILY LIVING FROM THE FARM

The family living from the farm is the estimated value of the farm produce used in the house and shelter furnished the farmer and his family by the farm. It is a part of the income of the farm and a part of the expenses of operating the household even though cash transactions are not involved. The omission of the farm produce used in the home results in an incomplete record of both farm income and personal expense.

The value of the family living as shown in Table 4 amounts to five per cent of the total farm receipts on these farms. The values assigned are a conservative market price on the farm. If these products had been purchased, the amount paid out would have been considerably higher.

The rental value of the dwelling is calculated by taking ten per cent of the average inventory value of the dwelling.

Table 4. Family Living From the Farm, 1949

Items	Your farm	18 most 18 least		18 most 18 least	
		Average 88 farms	profit-able farms	profit-able farms	Average 88 farms
Adult equiv.--family	_____	2.4	2.2	2.4	
-others	_____	.2	.2	.2	
Whole milk	_____	453 qts.	505	419	\$ 45.41
Skim milk	_____	80 qts.	7	203	2.06
Cream	_____	92 pts.	81	68	22.05
Farm made butter	_____	5 lbs.	1	3	2.79
Beef	_____	95 lbs.	59	129	16.18
Hogs	_____	330 lbs.	344	282	54.82
Sheep	_____	1 lb.	-	-	.28
Poultry	_____	73 lbs.	81	97	13.69
Eggs	_____	91 doz.	102	79	32.66
Potatoes	_____	4 bu.	6	6	7.12
Vegetables & fruits	_____				11.84
Farm fuel	_____				5.89
Rental vl. of house	_____				176.65
Total					391.44
					\$ 48.15
					\$35.20
					5.5
					16.4
					1.60
					20.67
					45.29
					-
					17.87
					29.55
					8.17
					11.62
					13.42
					172.93
					163.29
					368.84

HOUSEHOLD AND PERSONAL EXPENSES AND RECEIPTS

Household and personal accounts are important if the family is to manage its financial affairs wisely. The household and personal expenses and receipts are presented in Table 5. These farmers spent an average of \$149 per month for family living in addition to the food, fuel and housing furnished by the farm. Most of the personal receipts were in the form of veterans' compensation payments.

Table 5. Household and Personal Expenses and Receipts for Those Farmers Who Kept Complete Accounts of These Items, 1949

Items	Your farm	Average of 76 farms*	15 most profitable farms	15 least profitable farms
Number of persons in family	—	3.5	3.3	3.3
Number of adult equivalents in family	—	2.4	2.3	2.4
Number of other adult equivalents**	—	.2	.2	.2
EXPENSES				
Food and meals bought	\$ —	\$546	\$519	\$524
Operating and supplies	—	195	227	162
Clothing and clothing materials	—	214	271	194
Personal care, personal spending	—	102	135	95
Furnishings and equipment	—	234	237	329
Education, recreation and development	—	57	103	47
Medical care and health insurance	—	126	161	109
Church, welfare, gifts	—	107	130	74
Personal share of auto expense	—	85	92	81
Household share of elect. & gas eg. exp.	—	27	36	24
H.H. & pers. shr. of new auto & motors bot.	—	98	106	156
Total cash living expenses	—	1791	2017	1795
State and federal income tax	—	45	94	—
Insurance	—	90	106	74
Total household and pers. cash exp.	—	1926	2217	1869
Food furnished by the farm	—	217	232	185
Fuel furnished by the farm	—	4	3	9
House rental	—	175	174	163
Total cash expenses and perquisites	—	2322	2626	2226
Purchase of stocks, bonds, and other invest.	—	22	—	32
RECEIPTS				
Sale of investments	—	—	—	—
Income from outside investments	—	7	—	8
Veterans compensation	—	1082	1228	1095
Misc. income	—	46	33	150

* Twelve farm operators did not keep a record of household and personal expenses.

** Hired help or others boarded.

NET WORTH

A net worth statement includes a listing of all the assets and liabilities as of a given date. The difference between the farmer's total assets and his liabilities is his net worth. A net worth statement for owners and cash and crop shared renters is presented in Table 6. Both the farm and personal assets and liabilities are included.

The difference between the operator's net worth at the beginning and at the end of the year shows the gain in net worth. It represents the financial progress that has been made during the year.

Table 6. Net Worth Statement for Those Farmers Who Kept a Complete Record of All Assets and Liabilities, 1949 (Operator's Share)

	Your farm		12 Owners	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31
Total acres in farm			185.9	
Owned			185.9	
Rented			-	
Total farm capital			20832	\$22201
Accounts receivable			24	12
Stocks and bonds			75	21
Life insurance			164	171
Other real estate			-	-
Other outside investments			18	14
Total outside investments			257	206
Cash on hand and in bank			365	510
Other household & personal assets			1159	1331
Total cash, household & personal assets			1524	1841
TOTAL ASSETS			22637	24260
Federal Land Bank Mortgage			896	1042
Other mortg. on land operated			7158	7219
Mortg. on outside real estate			-	-
Production Credit Association			-	184
Other chattel mortgages			681	596
Notes payable			717	782
Accounts payable			172	269
TOTAL LIABILITIES			9634	10092
Farmer's net worth			13003	14168
Gain in net worth				+1165
			43 cash & crop share renters*	
			Jan. 1	Dec. 31
Total acres in farm		227.6		
Owned		-		
Rented		227.6		
Total farm capital		6745	\$7763	
Accounts receivable		34	38	
Stocks and bonds		74	78	
Life insurance		112	124	
Real estate		-	326	
Other outside investments		5	7	
Total outside investments		191	535	
Cash on hand and in bank		229	207	
Other household and personal assets		1171	1358	
Total cash, household & personal assets		1400	1565	
TOTAL ASSETS		8370	9901	
Real estate mortgages		-	302	
Chattel mortgages		1226	1471	
Notes payable		711	617	
Accounts payable		187	149	
TOTAL LIABILITIES		2124	2539	
Farmer's net worth		6246	7362	
Gain in net worth			+1116	

* 3 rented for cash, 4 crop share and 36 cash and crop share

Table 7. Summary of Farm Earnings by Tenure, 1949 (Operator's Share)

	Your farm	12 owners	43 cash & cr. shr. renters
FARM RECEIPTS			
Dairy and dual purpose cows		\$ 74	\$ 148
Dairy products		539	476
Other dairy and dual purpose cattle		261	197
Beef Cattle		219	160
Hogs		2254	1892
Sheep and wool		-	83
Poultry		93	120
Eggs		662	564
Horses		16	6
Corn		445	556
Small grain		751	990
Other crops		212	145
Machinery & equipment sold		230	329
Agricultural adjustment payments		17	9
Income from work off the farm		146	141
Misc.		84	4
(1) Total farm sales		6003	5820
(2) Increase in farm capital		1369	1018
(3) Family living from the farm		440	365
(4) Total farm rec. (1)+(2)+(3)		7812	7203
FARM EXPENSES			
Dairy and dual purpose cows bot		\$ 82	\$ 141
Other dairy & dual pur. cattle bot		80	89
Beef cattle bot. (including feeders)		5	66
Hogs bot		214	216
Sheep bot (including feeders)		-	44
Poultry bot (including turkeys)		62	87
Horses bot		-	8
Misc. livestock expenses		106	68
Misc. crop expenses		423	397
Feed bot		648	657
Custom work hired		289	298
Mech. power mach. (farm share) (new)		681	790
Mech. power mach. (farm share) (upkeep)		230	226
Mech. power (farm share) (gas, oil, etc.)		577	677
Crop and general mach. (new)		515	800
Crop and general mach. (upkeep)		119	147
Livestock equipment (new)		61	88
Livestock equipment (upkeep)		32	30
Land, buildings & fencing (new)		1116	39
Buildings and fencing (upkeep)		152	35
Hired labor		231	132
Taxes (real estate & pers. property)		245	30
General farm and insurance		96	40
Cash rent		-	248
Interest paid		256	83
(5) Total farm purchases		6220	5436
(6) Decrease in farm capital		-	-
(7) Interest on farm capital		820	280
(8) Unpaid family labor		143	249
(9) Board furnished hired labor		72	53
(10) Total farm exp. (sum of (5) to (9))		7255	6018
(11) Operator's labor earn. (4) - (10)		557	1185
(12) Ret. cap. & family lab. (7)+(8)+(11)		1500	1711

RETURNS TO CAPITAL AND FAMILY LABOR

The return to capital and family labor represents the amount available to the operator for living expenses, payment on indebtedness, and savings. The landlord's expenses and receipts are not included.

The average return to capital and family labor for 12 owners and 43 cash and crop share renters is shown in Table 7. The statement includes only the veterans share of the earnings of the partnership. The earnings as shown in Table 7 are on an actual basis as compared to the full-owner basis in Tables 2 and 3.

MANAGEMENT FACTORS AND THEIR RELATION TO EARNINGS

Every study of farm earnings shows a wide variation in earnings among farmers in a given year. The average labor earnings of those farmers ranking in the upper 20 per cent of the range according to earnings was \$3964 and of those in the lower 20 per cent was \$-166. This is a range of \$4130 between the average earnings of these two groups. Some of the causes for these differences in earnings, such as weather, may be beyond the control of the individual farmer. Other factors are within his control. 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.

Crop Yields. The measure of crop yields used is the crop yield index. It is a comparison of the yield per acre of all crops on a given farm with the average yields for all farms included in the study. High crop yields make their maximum contribution to earnings if they are the result of good crop selection, the use of adapted varieties, skill and timeliness in performing the operations.

Table 8. Relation of Crop Yields to Farm Earnings

Index of crop yields	No. of	Average operator's
Range	farms	labor earnings
Below 80	19	\$1211
80 - 119	52	1711
120 and above	17	2000

Choice of Crops. Over a period of years certain crops have a definite advantage over others. The crops are classified on page 16 as A, B, C or D crops on the basis of their average net returns per acre. The relation of choice of crops to earnings is shown in Table 9.

Table 9. Relation of Choice of Crops to Farm Earnings

Percent of tillable land	No.	Average
in high return crops	of	operator's
Range	farms	labor earnings
Below 31.0	16	\$1397
31.0 - 55.9	56	1652
56.0 and above	16	1945

Return from Livestock. This is a measure of feeding efficiency. The majority of these farmers maintain some cattle, hogs and poultry. Three farmers did not keep any livestock. Most of the crops raised and some additional purchased feed are fed to livestock. Since feed is the major item of cash in livestock production, an increase in feeding efficiency results in higher earnings.

Table 10. Relation of Returns from Productive Livestock to Farm Earnings

Index of returns for \$100 feed consumed by productive livestock*	Average	No. of farms	Average operator's labor earnings
Below 81	69	15	\$ 893
81 - 115	98	53	1606
116 and above	134	17	2187

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

Amount of Livestock. This factor measures the importance of livestock in the farm business. It is the amount of livestock units per 100 acres in the farm other than land in timber, roads, waste and farmstead. Livestock are important in that they add to the size of business. They provide employment throughout the year and aid in maintaining or building up the fertility of the land.

Size of Business. Productive man work units are a measure of size of business. The relationship of size of business to farm earnings is shown in Table 11. Average farm earnings tend to increase with an increase in size of business is size is accompanied by good management. For farmers operating their farms at a loss, the larger the volume of business, the larger will be the loss. Normally a large business has an advantage over a small business because they utilize more efficiently and to better advantage available labor, power, machinery, equipment and buildings.

Table 11. Relation of Size of Business to Farm Earnings

Work units	Average	No. of farms	Average operator's labor earnings
Below 210	169	11	\$867
210 - 419	303	65	1728
420 and above	513	12	2011

Work Accomplished Per Worker. The work accomplished per worker is determined by dividing the total man work units by the number of workers on the farm during the year. An increase in the productive work accomplished per worker reduces the labor charge per unit of business. Planning of the farm work and economical use of labor-saving machinery help to increase the output of work per worker.

Table 12. Relation of Work Accomplished Per Worker to Farm Earnings

Work units per worker	Average	No. of farms	Average operator's labor earnings
Below 157	140	9	\$1431
157 - 289	221	68	1619
290 and above	347	11	2089

Control Over Expenses. The depreciation and cash cost of upkeep for power, machinery, equipment and buildings per unit of work is used as a measure of the efficiency of their use on a farm. Some farmers lack power, machinery and buildings for satisfactory operation. In case of others, an excessive investment in these items may constitute an important factor limiting earnings.

Table 13. Relation of Expenses to Farm Earnings

Expenses per work unit Range	Average	No. of farms	Average operator's labor earnings
\$8.95 and above	\$11.00	13	\$ 651
\$5.35 - \$8.94	6.86	59	1799
Below \$5.35	4.87	16	1960

CUMULATIVE EFFECT OF EXCELLING IN A NUMBER OF MANAGEMENT FACTORS

The relation of several management factors to operator's labor earnings has been shown in the preceding section. Because of the large number of interrelationships between these factors the exact relationship between one factor and earnings cannot be determined. The combined or cumulative influence of the seven management factors on earnings is shown in Table 14. Insofar as these factors are within the farmer's control, he may be well paid for his efforts to improve his efficiency as measured by them.

Table 14. 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 lines is in proportion to the average operator's labor earnings	Average operator's labor earnings
None or 1	12	_____	XXXXXXXXXXXXXXXXXXXX	\$1210
2 or 3	37	_____	XXXXXXXXXXXXXXXXXXXX	1488
4 or 5	29	_____	XXXXXXXXXXXXXXXXXXXX	1738
6 or 7	10	_____	XXXXXXXXXXXXXXXXXXXX	2599

The array in Table 14 suggests that it may be well worth while for each cooperator to study carefully his ranking on pages 14 and 15, and learn his standing in respect to each of the seven factors as indicators of elements of strength and weakness in his farm business.

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 15.

Table 15. 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*	Corn, husked	1.1 per acre
Beef breeding herd	4.0 per an.unit*	Corn, hogged	.7 per acre
Feeder cattle	.35 per 100 lbs.	Corn, shredded	2.2 per acre
Sheep - farm flock	1.8 per an. unit*	Corn, silage	1.7 per acre
Hogs	.3 per 100 lbs.	Corn, fodder	1.0 per acre
Turkeys	.7 per 100 lbs.	Alfalfa hay	.9 per acre
Hens	22.0 per 100 hens	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 16. Measures of Farm Organization and Management Efficiency, 1949

Measures used in chart on page 15	Your farm	Average of 88 farms	18 most profit- able farms	18 least profit- able farms
Operator's labor earnings	\$ _____	\$1659	\$3964	\$ -166
(1) Crop yields*	_____	100	116	92
(2) % of tillable land in high ret. crops**	_____	44.1	43.9	43.1
(3) Ret. for \$100 feed to prod. livestock***	_____	100	109	97
(4) Prod. livestock units per 100 acres****	_____	9.6	9.6	10.9
(5) Size of business - work units	_____	315	358	298
(6) Work units per worker	_____	225	239	213
(7) Pow., mach., equip., & bldg. exp. per work unit	_____	\$7.11	\$6.61	\$8.19

Items related to some of the above measures:

(3) Index of return for \$100 feed from				
Dairy cattle (See pages 20 and 21)	_____	100	111	96
Dual purpose cattle (See pages 20 and 21)	_____	100	-	124
Beef breeding herd (See page 24)	_____	100	119	-
Beef cattle - feeders (See page 24)	_____	100	106	-
Hogs (See page 22)	_____	100	101	95
Sheep - farm flock (See page 25)	_____	100	108	-
Chickens (See page 23)	_____	100	118	102
(4) Number of animal units	_____	17.6	20.9	17.8
(5) Work units on crops	_____	148	186	115
Work units on productive livestock	_____	156	162	172
Other work units	_____	11	10	11
(6) Number of family workers	_____	1.2	1.4	1.3
Number of hired workers	_____	.2	.1	.1
Total number of workers	_____	1.4	1.5	1.4
(7) Power expense per work unit	\$ _____	\$4.15	\$3.83	\$4.48
Crop machinery expense per work unit	_____	1.54	1.59	1.67
Livestock equip. expense per work unit	_____	.26	.26	.32
Bldgs. & fencing exp. per work unit	_____	1.16	.93	1.72

*Given as a percentage of the average.

**Crops are marked in Table 17 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 88 farms included in this summary are located between the dotted lines across the center of this page.

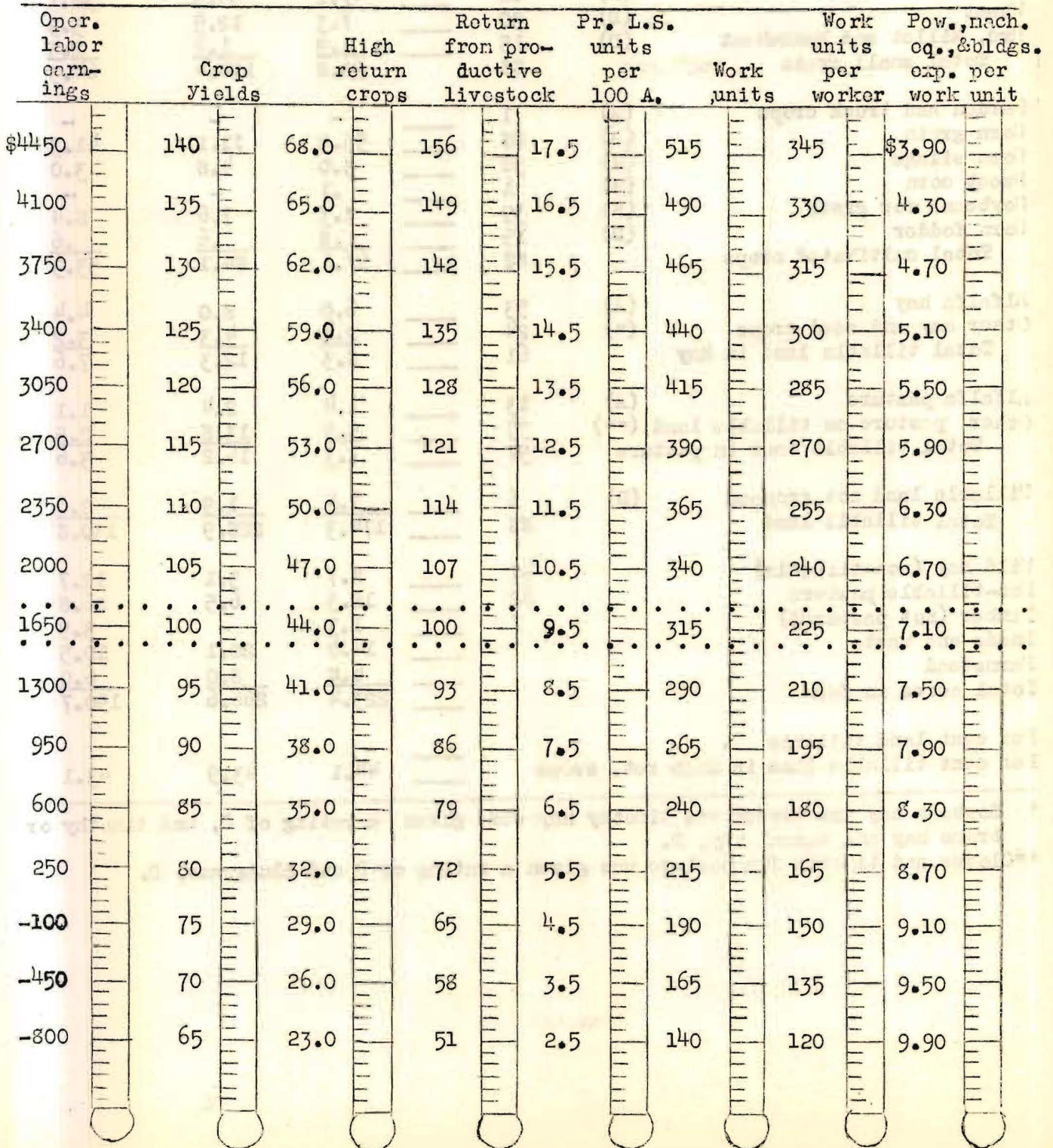


Table 17. Distribution of Acres in Farm, 1949

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 88 farms	18 most profitable farms	18 least profitable farms
Canning peas (A)	2	—	.2	.8	—
Flax (C)	60	—	24.3	33.1	11.1
Barley (D)	34	—	9.4	11.4	9.5
Oats (D)	88	—	47.1	54.9	38.1
Wheat (D)	30	—	7.3	12.5	3.3
Rye, Millet and buckwheat (D)	15	—	1.9	1.7	2.3
Total small grain	88	—	90.2	114.4	64.3
Garden and truck crops (A)	1	—	—	—	—
Corn grain (A)	88	—	55.9	71.1	41.3
Corn silage (B)	32	—	3.0	4.8	3.0
Sweet corn (B)	1	—	.1	—	—
Soybeans for grain (B)	39	—	7.3	7.6	8.4
Corn fodder (D)	15	—	.8	.6	.6
Total cultivated crops	88	—	67.1	84.1	53.3
Alfalfa hay (A)	53	—	6.0	8.0	4.4
Other hay and seed crops (*)	24	—	2.3	4.3	3.2
Total tillable land in hay	61	—	8.3	12.3	7.6
Alfalfa pasture (A)	13	—	1.4	2.4	1.1
Other pasture on tillable land (**)	35	—	5.9	13.8	2.5
Total tillable land in pasture	37	—	7.3	16.2	3.6
Tillable land not cropped (D)	6	—	1.4	1.9	2.0
Total tillable land	88	—	174.3	228.9	130.8
Wild hay (non-tillable)	47	—	8.7	3.1	12.7
Non-tillable pasture	62	—	18.3	6.5	26.8
Timber (not pastured)	7	—	1.3	—	3.9
Roads and waste	—	—	14.0	20.1	10.5
Farmstead	—	—	6.8	8.0	6.0
Total acres in farm	—	—	223.4	266.6	190.7
Per cent land tillable	—	—	—	—	—
Per cent tillable land in high ret. crops	—	—	44.1	43.9	43.1

* Soybean hay and clover and timothy hay were given a rating of C, and timothy or brome hay and annual hay, D.

**Clover and timothy for pasture was given a rating of C and bluegrass, D.

Table 18. Crop Yields Per Acre, 1949

Crop	Your farm	Average of farms growing each crop
Flax, bu.	_____	9.6
Barley, bu.	_____	20.3
Oats, bu.	_____	31.3
Wheat, bu.	_____	13.4
Rye, bu.	_____	15.4
Millet, bu.	_____	13.7
Buckwheat, bu.	_____	11.8
Corn grain, bu.	_____	38.0
Corn silage, tons	_____	7.8
Soybeans, bu.	_____	13.9
Corn fodder, tons	_____	1.8
Alfalfa hay, tons	_____	2.0
Soybean hay, tons	_____	1.5
Other leg. & leg. mix. for hay, tons	_____	1.6
Legume seed, lbs.	_____	78.0
Brome or timothy hay, tons	_____	.7
Annual hay, tons	_____	1.2
Wild hay on non-tillable land, tons	_____	1.2

POWER AND MACHINERY EXPENSES

Power and machinery expense per crop acre is an indication of the economy with which capital is invested in these items. The crop acres per farm ranged from 53 to 432 with an average of 174.3 (Table 19). The expenses are high on the farms with a small acreage. In some cases, low expenses for labor might be offset by high power and equipment costs. The farmer is interested in operating at the lowest cost for power, machinery and labor combined.

Table 19. Power and Machinery Expenses Per Crop Acre, 1949

Items	Your farm	Average of 88 farms	18 most profitable farms	18 least profitable farms
Crop acres per farm	_____	174.3	213.9	137.9
Tractor and horse exp. per crop acre	_____	\$4.06	\$3.42	\$4.56
Crop & gen. mach. exp. per crop acre	_____	2.91	2.65	3.65

The feed cost for horses is a part of the cost of power on those farms maintaining horses. The annual feed cost per horse is shown in Table 20. Fifty-five farmers did not maintain horses.

Table 20. Feed Costs for Horses, 1949

Items	Your farm	Average of 33 farms
Feed per horse, lbs.:		
Grain	_____	599
Hay	_____	2963
Fodder and stover	_____	95
Feed cost per horse:		
Grain	_____	\$11.31
Roughage	_____	14.18
Pasture	_____	7.15
Total feed cost	_____	32.64
Number of work horses	_____	2.3
Number of colts	_____	.2

AMOUNT OF LIVESTOCK

A large proportion of the farmers maintained some dairy or dual purpose cattle. However, the average number of milk cows per farm was small (Table 21). Ninety-two per cent of the farmers kept hogs and eighty per cent raised poultry.

Table 21. Amount of Livestock, 1949

	Your farm	Average of 88 farms	18 most profitable farms	18 least profitable farms
Number of milk cows	_____	4.5	3.6	6.1
Number of other dairy cattle	_____	5.8	3.3	7.9
Number beef cows	_____	1.3	3.0	.3
Number of sheep*	_____	4.4	6.6	.7
Number of hens	_____	160	190	122
Number of litters of pigs raised	_____	8.4	9.6	10.3
Pounds feeder cattle produced	_____	635	1429	168
Pounds of hogs produced	_____	11727	13446	13365
Number of horses	_____	.8	1.3	.9

*Two lambs under six months of age considered as one head.

TOTAL FEED COSTS AND RETURNS FROM YOUR LIVESTOCK ENTERPRISES

The total "return over feed costs" for each class of livestock is shown in Table 22. 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 5. The value of milk consumed by calves is included in the total returns from dairy or dual purpose cows and in the total feed cost for other dairy or other dual purpose cattle. The value of milk consumed by calves is not included in either the total returns or the feed cost of "all dairy" or "all dual purpose" cattle. 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 22. Total Feed Costs and Returns From Your Livestock Enterprises, 1949

	Dairy or dual purpose cattle			Beef breeding herd
	Cows	other	All	
Total returns	_____	_____	_____	_____
Total feed cost	_____	_____	_____	_____
Total return over feed	_____	_____	_____	_____
	Feeder cattle	Hogs	farm flock of sheep	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 considerably 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.

DAIRY AND DUAL PURPOSE CATTLE

The quantity of feed consumed, value of feeds and returns from dairy and dual purpose cattle are presented in Tables 23, 24, and 25. Thirty-nine herds were classified as dairy cattle and 16 herds were classified as dual purpose cattle. The return over feed cost per dairy cow varied from \$-66.77 to \$216.47 among the 39 dairy herds. The return over feed per dual purpose cow ranged from a low of \$-0.33 to a high of \$125.56. Some of the important factors that affected the return over feed were:

1. Rate of production (pounds of butterfat per cow).
2. Price received for butterfat.
3. Feeding efficiency (pounds T.D.N. fed per pound of butterfat).
4. Quality of ration (percentage of protein in T.D.N.).
5. Economy of ration (feed cost per pound butterfat).

Table 23. Factors of Cost and Returns from Dairy and Dual Purpose Cows, 1949

Items	Your farm	Average of 39 dairy herds	Average of 16 dual purpose herds
Pounds of butterfat per cow	_____	216	171
Price rec. per lb. B.F. sold (cents)	_____	67.0	64.6
As manufacturing cream (cents)	_____	65.8	64.6
Other (cents)	_____	87.6	-
Feeds per cow, lbs:			
Corn	_____	1398	1137
Small grain	_____	1087	717
Commercial feeds	_____	287	267
Legume hay	_____	2693	1696
Other hay	_____	1830	2378
Fodder and stover	_____	192	417
Total concentrates	_____	2772	2121
Total hay and fodder	_____	4715	4491
Silage	_____	4124	3980
Total digestible nutrients*	_____	5118	4181
T.D.N. per lb. B.F.	_____	25.2	24.7
% T.D.N. that is protein	_____	12.7	11.9
Feed cost per cow:			
Concentrates	\$ _____	\$54.42	\$38.90
Roughages	_____	49.25	36.36
Pasture	_____	7.11	7.45
TOTAL FEED COSTS	\$ _____	\$110.78	\$82.71
Value of produce per cow:			
B.F. sales	\$ _____	\$136.10	\$101.09
Dairy produce used in house	_____	16.14	15.62
Milk to livestock	_____	21.54	13.67
Net increases in value of cows	_____	-6.26	.70
TOTAL VALUE PRODUCED	\$ _____	\$167.52	\$131.08
RETURNS ABOVE FEED COST PER COW	\$ _____	\$56.74	\$48.37
RETURNS FOR \$100 OF FEED	\$ _____	\$158	\$162
Feed cost per lb. B.F. (cents)	_____	53.8	48.7
Number of cows**	_____	6.5	7.1

*Not including nutrients received from pasture.

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

Table 24. Feed Costs and Returns from Other Dairy and Dual Purpose Cattle, 1949

Items	Your farm	Average of 37 dairy herds	Average of 16 dual purpose herds
Foods per head, lbs.:			
Concentrates	_____	828	937
Hay and fodder	_____	1791	1748
Silage	_____	1243	1301
Skin milk	_____	1340	870
Whole milk	_____	155	131
Feed cost per head:			
Concentrates	\$ _____	\$14.88	\$17.97
Roughages	_____	16.82	14.00
Milk	_____	9.63	4.87
Pasture	_____	2.41	1.92
TOTAL FEED COSTS PER HEAD	\$ _____	\$43.74	\$38.76
Net inc. in value of other dairy cattle	_____	\$74.18	\$72.80
RETURNS ABOVE FEED COST PER HEAD	_____	\$30.44	\$34.04
RETURNS FOR \$100 OF FEED	_____	\$183	\$220
Number of head of other dairy cattle	_____	7.7	11.1

Table 25. Feed Costs and Returns From All Dairy and Dual Purpose Cattle, 1949

Items	Your farm	Average of 39 dairy herds	Average of 16 dual purpose herds
Foods per animal unit, lbs.:			
Concentrates	_____	2328	2035
Hay and fodder	_____	4195	3923
Silage	_____	3534	3187
Feed cost per animal unit:			
Concentrates	\$ _____	\$50.61	\$40.99
Roughages	_____	43.33	31.73
Pasture	_____	6.28	5.97
TOTAL FEED COST	\$ _____	100.22	78.69
Value of produce per animal unit:			
Dairy products	\$ _____	\$110.13	\$73.84
Net increase in val. of dairy cattle	_____	41.71	59.94
TOTAL VALUE	\$ _____	151.84	133.78
RETURNS ABOVE FEED PER ANIMAL UNIT	\$ _____	51.62	55.09
RETURNS PER \$100 OF FEED	\$ _____	\$159	\$179
Animal units of dairy cattle	_____	10.5	12.9

HOGS

The return over feed cost per 100 pounds of hogs produced varied from \$8.14 for those farmers ranking in the upper fifth in feeding efficiency to a return of \$0.43 loss than the feed cost for those in the lowest one-fifth. Some of the important factors that affected return over feed were:

1. Quantity of feed required to produce 100 pounds of hogs.
2. Price received.
3. Number of pigs born per litter.
4. Number of pigs weaned per litter.

Table 26. Feed Costs and Returns From Hogs, 1949

Items	Your farm	Average of 81 farms	16 farms highest in returns above feed	16 farms lowest in returns above feed
Feed per cwt. hogs produced, lbs.:				
Corn	_____	336	272	\$429
Small grain	_____	152	101	229
Commercial feeds	_____	22	14	25
Total concentrates	_____	510	387	683
Skin milk and buttermilk	_____	100	122	88
Feed cost per cwt. hogs produced:				
Concentrates	\$ _____	\$10.12	\$7.32	\$13.38
Skin milk and buttermilk	_____	.43	.48	.43
Pasture	_____	.16	.21	.20
TOTAL FEED COSTS		10.71	8.01	14.01
Net increase in val. per cwt. hogs prod.	_____	\$15.06	\$16.15	\$13.58
RETURNS ABOVE FEED COST PER CWT. HOGS PROD.	_____	\$4.35	\$8.14	\$-.43
RETURNS FOR \$100 OF FEED	_____	\$148	\$203	\$99
Price received per cwt. hogs sold	_____	\$17.23	\$17.63	\$17.07
No. of spring litters raised	_____	7.0	5.5	7.0
No. of fall litters raised	_____	2.1	1.7	1.4
Total No. of litters raised	_____	9.1	7.2	8.4
No. of pigs born per litter	_____	8.0	8.3	7.5
No. of pigs weaned per litter	_____	6.2	6.5	5.6
Pounds of hogs produced	_____	12737	14698	10761

CHICKENS

Three out of the 70 farmers raising chickens failed to receive a return large enough to cover the cost of feed. The average return over feed from the 70 flocks included in this report was \$2.25 per hen (Table 27).

Table 29. Feed Costs and Returns from Beef Breeding Herds, 1949

Items	Your farm	Average of 10 farms
Feed per animal unit, lbs.:		
Concentrates	_____	821
Legume hay	_____	1759
Other hay	_____	1130
Fodder and stover	_____	358
Silage	_____	4501
Feed cost per animal unit:		
Concentrates	_____	\$15.39
Roughages	_____	35.37
Pasture	_____	7.43
Total feed cost	_____	58.19
Value of produce per animal unit:		
Dairy products	_____	\$3.35
Net increase in value of beef cattle	_____	77.21
Total value produced	_____	80.56
Return over feed cost per animal unit	_____	\$22.37
Return for \$100 of feed	_____	\$135
Number of cows and herd bulls	_____	10.3
Number of animal units	_____	15.7
Pounds of beef produced	_____	5681

Table 30. Feed Costs and Returns From Feeder Cattle, 1949

Items	Your farm	Average of 6 farms
Feeds per cwt. beef produced, lbs.:		
Corn	_____	452
Small grain	_____	55
Commercial feeds	_____	28
Legume hay	_____	242
Other hay	_____	115
Fodder and stover	_____	22
Total concentrates	_____	535
Total hay	_____	379
Silage	_____	275
Feed cost per cwt. beef produced:		
Concentrates	\$ _____	\$10.84
Roughages	_____	4.01
Pasture	_____	.63
TOTAL FEED COSTS	\$ _____	15.48
Net increase in value of feeders	\$ _____	25.47
RETURNS ABOVE FEED COST PER CWT.		
BEEF PRODUCED	_____	9.99
RETURNS FOR \$100 OF FEED	_____	\$204
Price rec'd per cwt. beef sold	_____	\$22.06
Price paid per cwt. beef bought	\$ _____	22.01
No. of animal units	_____	14.4
Pounds of beef produced	_____	9018

Table 31. Feed Costs and Returns from a Farm Flock of Sheep, 1949

Items	Your farm	Average of 8 farms
Feed per head,* lbs.:		
Concentrates	_____	82
Legume hay	_____	73
Other hay	_____	182
Fodder and stover	_____	117
Silage	_____	29
Feed cost per head:		
Concentrates	\$ _____	\$1.49
Roughages	_____	1.81
Pasture	_____	1.15
TOTAL FEED COSTS	\$ _____	4.45
Value of produce per head:		
Wool	_____	\$2.97
Net increase in value of sheep	_____	8.49
TOTAL VALUE PRODUCED	\$ _____	11.46
RETURNS ABOVE FEED COST PER HEAD	_____	7.01
RETURNS FOR \$100 OF FEED	\$ _____	\$230
Price per cwt. of lambs sold	\$ _____	\$21.49
Price per lb. wool sold (cents)	_____	39.3
Pounds of wool per sheep sheared	_____	8.5
Number of ewes kept for lambing	_____	34
% lamb crop**	_____	111
% death loss**	_____	7.9
Pounds of sheep produced	_____	3447
No. of head of sheep*	_____	48.5

* Two lambs under six months of age considered as one head.

**Lambs which die during month of birth are not included.

Table 32. Summary of Farm Inventories by Years

	1947	1948	1949
Number of farms	62	72	88
Dairy and dual purpose cows	\$438	\$685	\$702
Other dairy & dual purpose cattle	190	412	415
Beef cattle (inc. feeders)	80	464	508
Hogs	652	840	784
Sheep	104	120	56
Poultry	122	182	178
Productive livestock (total)	1586	2703	2643
Horses	40	48	51
Crop, seed, & feed	1452	2402	2251
Power mach. (farm share)	1223	1594	1728
Crop & general mach. (farm share)	939	1477	1639
Livestock equipment & supplies	156	279	270
Mach. & equipment (total)	2318	3350	3637
Miscellaneous	1	1	-
Buildings, fences, etc.	4260	5240	5483
Land	8515	8900	10177
Total farm capital	18172	22644	24242

Table 33. Summary of Farm Earnings by Years

	1947	1948	1949
Monthly charge for unpaid family labor	\$ 121	\$ 129	\$ 125
Monthly charge for board to hired labor	35	41	35
FARM RECEIPTS			
Dairy and dual-purpose cows	\$ 88	\$ 304	\$ 173
Dairy products	434	800	555
Other dairy & dual-purpose cattle	131	317	249
Beef cattle	117	459	467
Hogs	1601	2101	2097
Sheep and wool	41	127	65
Poultry	148	181	156
Eggs	441	783	785
Horses	6	8	7
Corn	1033	910	1210
Small grain	1776	1954	1477
Other crops	285	367	284
Machinery & equip, sold	139	297	265
Agricultural adjustment payments	16	41	14
Income from work off the farm	64	147	134
Miscellaneous	15	26	18
(1) Total farm sales	<u>6335</u>	<u>8822</u>	<u>7956</u>
(2) Increase in farm capital	1913	1931	886
(3) Family living from the farm	348	437	391
(4) Total farm receipts (1)+(2)+(3)	<u>8596</u>	<u>11190</u>	<u>9233</u>
FARM EXPENSES			
Dairy and dual purpose cows bought	\$ 112	\$ 212	\$ 140
Other dairy and dual-pur. cattle bought	92	122	76
Beef cattle bought	35	426	176
Hogs bought	187	170	223
Sheep bought	82	36	26
Poultry bought	71	93	97
Horses bought	8	15	6
Misc. livestock expense	59	94	96
Misc. crop expenses	420	546	436
Feed bought	635	834	741
Custom work hired	206	312	291
Mech. power mach. (farm share) (new)	535	664	696
Mech. power mach. (farm share) (upkp.)	218	235	215
Mech. power (f. share) (gas, oil, etc.)	482	653	664
Crop and general mach. (new)	441	906	729
Crop and general mach. (upkeep)	116	157	137
Livestock equipment (new)	79	93	112
Livestock equipment (upkeep)	22	41	36
Buildings and fencing (new)	231	304	418
Buildings and fencing (upkeep)	85	150	124
Hired labor	110	229	178
Taxes	235	282	299
General farm and insurance	37	65	61
(5) Total farm purchases	<u>4498</u>	<u>6639</u>	<u>5977</u>
(6) Decrease in farm capital	-	-	-
(7) Interest on farm capital	909	1132	1212
(8) Unpaid family labor	399	539	329
(9) Board furnished hired labor	31	93	56
(10) Total farm exp. (sum of (5) to (9))	<u>5837</u>	<u>8403</u>	<u>7574</u>
(11) Oper. labor earnings (4) - (10)	2759	2787	1659

Table 34. Summary of Acres and Crop Yields Per Farm by Years

	1947	1948	1949
<u>ACRES PER FARM</u>			
Flax	16.2	16.4	24.3
Barley	11.2	15.1	9.4
Oats	39.3	43.3	47.1
Wheat	9.6	10.3	7.3
Other small grains and peas	4.0	5.1	2.1
Total small grains and peas	80.3	90.2	90.2
Corn for grain	47.4	47.8	55.9
Soybeans for grain	7.5	7.2	7.3
Other cultivated crops	3.1	3.9	3.9
Total cultivated crops	58.0	58.9	67.1
Alfalfa hay	4.0	6.5	6.0
Other hay and seed crops	2.1	4.0	2.3
Total tillable land in hay	6.1	10.5	8.3
Total tillable land in pasture	3.9	5.6	7.3
Tillable land not cropped	5.9	.8	1.4
Total tillable land	154.2	166.0	174.3
Wild hay (non-tillable)	6.5	6.8	8.7
Non-tillable pasture	15.6	21.0	18.3
Timber, roads, waste, and farmstead	28.1	22.7	22.1
Total land in farm	204.4	216.5	223.4
<u>CROP YIELDS PER ACRE</u>			
Soybeans, bu.	13.0	17.5	13.9
Flax, bu.	10.1	12.5	9.6
Barley, bu.	19.9	25.1	20.3
Oats, bu.	26.0	36.0	31.3
Wheat, bu.	14.4	14.5	13.4
Rye, bu.	22.0	17.2	15.4
Corn for grain, bu.	27.2	46.2	38.0
Corn for silage, tons	5.6	8.2	7.8
Corn fodder, tons	1.1	2.5	1.8
Alfalfa hay, tons	1.9	2.3	2.0
Brome or timothy hay, tons	.8	.7	.7

Table 35. Summary of Miscellaneous Items by Years

	1947	1948	1949
<u>MEASURES OF FARM ORGANIZATION AND MANAGEMENT EFFICIENCY</u>			
% high return crops	45.5	41.1	44.1
A.U. Livestock per 100 A.	6.7	9.8	9.6
No. of work units	231	314	315
Work units per worker	165	209	225
Expenses per work unit	\$7.04	\$7.09	\$7.11
<u>AMOUNT OF LIVESTOCK</u>			
No. of milk cows	3.2	4.9	4.5
No. of other dairy cattle	3.3	6.4	5.8
No. of head of sheep	6.7	7.6	4.4
No. of hens	102	157	160
Lbs. hogs produced	7093	9865	11727
No. of litters of hogs raised	5.2	6.4	8.4
No. of horses	.9	1.2	.8
<u>PRODUCTION PER UNIT OF LIVESTOCK</u>			
Lbs. B.F. per dairy cow	206	212	216
Lbs. B.F. per dual purpose cow	205	157	171
Pigs weaned per litter	6.1	6.2	6.2
No. eggs laid per hen	146	153	162
Lbs. wool per sheep sheared	9.5	7.6	8.5
% lamb crop	129	97	111
<u>PRICE RECEIVED PER</u>			
Lb. B.F. sold (cts.)	80.6	87.8	66.3
Cwt. hogs sold	\$24.22	\$22.88	\$17.23
Cwt. beef sold	22.26	28.64	22.06
Cwt. lambs sold	21.85	22.87	21.49
Lb. wool sold (cts.)	35.4	42.8	39.3
Doz. eggs sold (cts.)	37.8	40.1	38.6
<u>RETURN ABOVE FEED COST PER</u>			
Dairy cow	\$62.51	\$104.88	\$56.74
Dual purpose cow	33.70	69.91	48.37
Animal unit in beef breeding herd	-	78.55	22.37
Cwt. feeder cattle produced	5.12	8.24	9.99
Cwt. hogs produced	6.97	6.23	4.35
Head of sheep	7.76	7.16	7.01
Hen	.66	1.72	2.25
<u>FEED COST PER</u>			
Dairy cow	\$117.53	\$118.02	\$110.78
Dual purpose cow	140.06	108.59	82.71
An. unit in beef breeding herd	-	75.93	58.19
Cwt. feeder cattle produced	18.23	30.03	15.48
Cwt. hogs produced	17.19	14.76	10.71
Head of sheep	8.15	5.73	4.45
Hen	5.18	4.00	3.67
Horse	43.67	33.12	32.64