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and
Vocational Division

Minnesota Department of Education

Cooperating

ANNUAL REPORT

of the

FARM MANAGEMENT SERVICE for VETERANS TAKING ON-THE-FARM TRAINING

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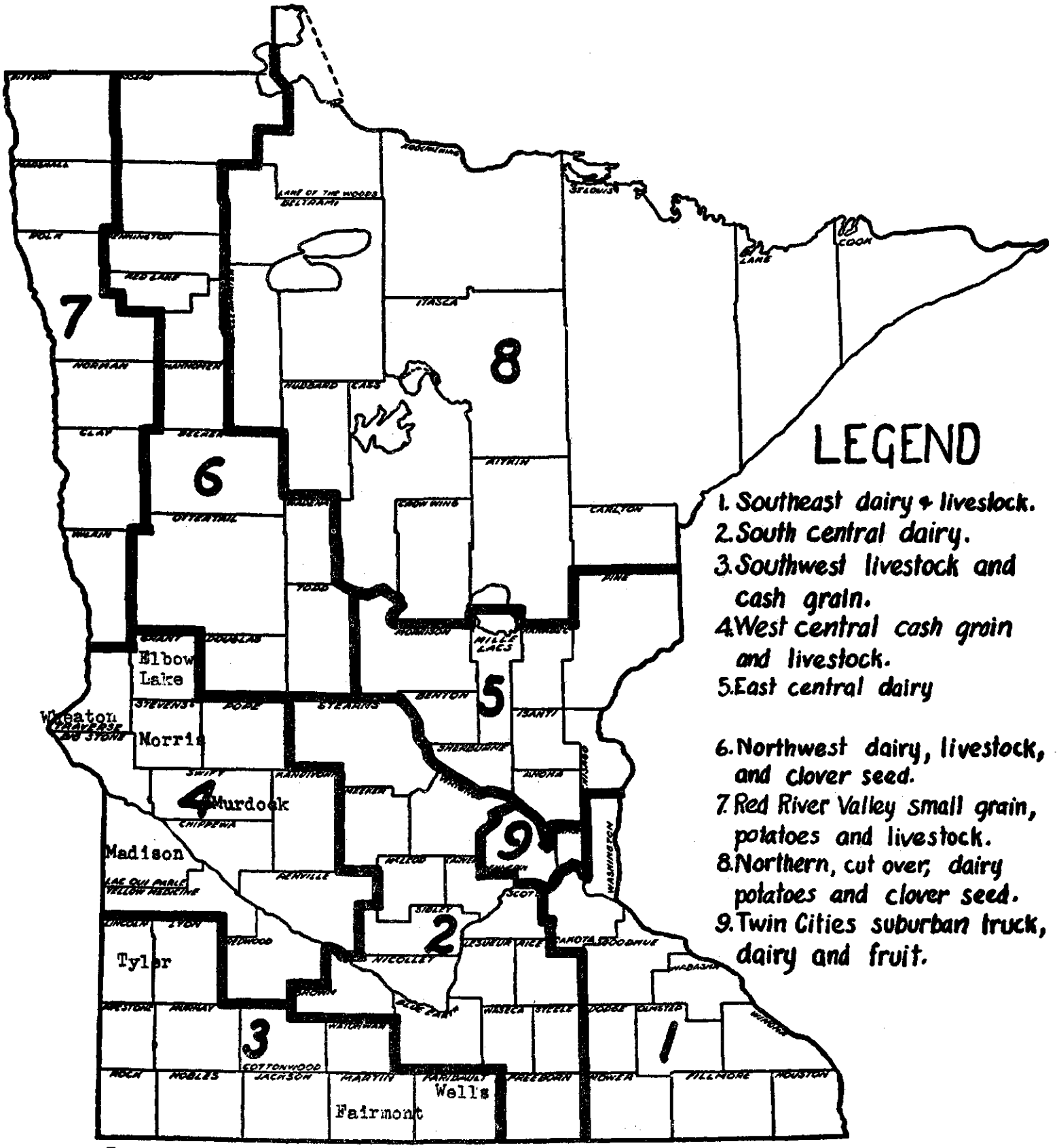

Type of Farming Areas in Minnesota and Location of Schools Submitting Farm Records for this Report

REPORT OF THE FARM MANAGEMENT SERVICE FOR VETERANS TAKING ON-THE-FARM TRAINING IN SOUTHWESTERN MINNESOTA, 1950

R. M. Dennistoun, H. G. Routhe, T. R. Nodland, and G. A. Pond

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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, and James Tyvand of the Division of Agricultural Economics aided in closing the records.

This report deals with the veterans enrolled by eight 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 1950:

Elbow Lake	4	Murdock	7
Fairmont	10	Tyler	2
Madison	3	Wells	2
Morris	16	Wheaton	11
		Total	55

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 $11,747 to $81,437. The average investment for all farms 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 41 out of the 55 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.

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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, 1950*

Items	Your Farm Jan. 1	Your Farm Dec. 31	Average of 55 farms Jan. 1	Average of 55 farms Dec. 31
Size of Farm (acres)	_____		223	
Size of business (work units)**	_____		332	
Dairy and dual purpose cows	_____	_____	$ 767	$ 890
Other dairy & dual purpose cattle	_____	_____	373	577
Beef cattle	_____	_____	618	941
Hogs	_____	_____	768	1225
Sheep	_____	_____	122	201
Poultry	_____	_____	181	181
Productive livestock (total)	_____	_____	2829	4015
Horses	_____	_____	37	25
Crop, seed, and feed	_____	_____	2414	2671
Power mach. (farm share)	_____	_____	2021	2258
Crop & general mach. (farm share)	_____	_____	1895	2422
Livestock equip. (total)	_____	_____	314	384
Mach. and equipment (total)	_____	_____	4230	5064
Misc.	_____	_____		1
Buildings, fences, etc.	_____	_____	6154	6194
Land	_____	_____	10462	10462
Total farm capital	_____	_____	26126	28432

Items	11 most profitable farms Jan. 1	11 most profitable farms Dec. 31	11 least profitable farms Jan. 1	11 least profitable farms Dec. 31
Size of farm (acres)	277		217	
Size of business (work units)**	391		285	
Dairy & dual purpose cows	$ 500	$ 478	$ 715	$ 987
Other dairy & dual purpose cattle	188	608	269	483
Beef cattle	1908	2421	59	52
Hogs	769	1313	779	881
Sheep	158	260	450	742
Poultry	224	160	173	196
Productive livestock (total)	3747	5240	2445	3341
Horses	33	26	83	40
Crop, seed, and feed	3076	3394	1548	1551
Power mach. (farm share)	2583	2740	1849	1987
Crop & general mach.	2252	3051	1372	1787
Livestock equipment & supplies	331	383	380	412
Mach. & equipment (total)	5166	6174	3601	4186
Miscellaneous		2	1	3
Buildings, fences, etc.	6737	6673	5633	5553
Land	15288	15288	9428	9428
Total farm capital	34047	36797	22739	24102

*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), 1950

Items	Your farm	Average of 55 farms	11 most profitable farms	11 least profitable farms
FARM RECEIPTS				
Dairy and dual-purpose cows		$ 279	$ 142	$ 233
Dairy products		$ 619	456	525
Other dairy & dual-purpose cattle		374	319	241
Beef cattle		666	2069	63
Hogs		2606	2822	1841
Sheep and wool		119	156	440
Poultry		211	181	134
Eggs		621	721	580
Horses		7	6	17
Corn		983	1910	319
Small grain		1509	2118	1167
Other crops		284	700	81
Machinery & equip. sold		412	699	182
Agricultural adjustment payments		40	37	27
Income from work off the farm		158	224	126
Miscellaneous		39	39	126
(1) Total farm sales		8927	12599	6102
(2) Increase in farm capital		2306	2750	1363
(3) Family living from the farm		446	493	395
(4) Total farm receipts (1)+(2)+(3)		11679	15842	7860
FARM EXPENSES				
Dairy and dual-purpose cows bought		$ 210	$ 118	$ 382
Other dairy and dual-pur.cattle bot.		210	400	129
Beef cattle bought		408	962	-
Hogs bought		331	173	150
Sheep bought		31	48	107
Poultry bought		104	101	98
Horses bought		1	-	2
Misc. livestock expense		147	141	155
Misc. crop expenses		495	564	393
Feed bought		1096	1102	727
Custom work hired		296	340	256
Mech. power mach. (farm share)(new)		846	1053	614
Mech. power mach. (farm share)(upkp.)		205	279	237
Mech. power(f.share)(gas,oil,etc.)		755	904	723
Crop and general mach. (new)		931	1322	735
Crop and general mach. (upkeep)		137	192	122
Livestock equipment (new)		145	118	98
Livestock equipment (upkeep)		44	36	62
Buildings and fencing (new)		385	239	165
Buildings and fencing (upkeep)		130	84	73
Hired Labor		184	346	103
Taxes		359	459	301
General farm and insurance		83	76	84
(5) Total farm purchases		7533	9057	5716
(6) Decrease in farm capital		-	-	-
(7) Interest on farm capital		1364	1771	1171
(8) Unpaid family labor		319	353	363
(9) Board furnished hired labor		58	121	31
(10) Total farm exp.(sum of (5)to(9)		9274	11302	7281
(11) Oper. labor earnings (4)-(10)		2405	4540	579

Table 3. Summary of Farm Earnings (Enterprise Statement) 1950*

Items	Your farm	Average of 55 farms	11 most profitable farms	11 least profitable farms
RETURNS AND NET INCREASES				
Dairy and dual purpose cows	_____	$ 795	$ 627	$ 678
Other dairy & dual pur. cattle	_____	596	353	447
Beef breeding herd	_____	190	568	44
Feeder cattle	_____	374	1048	---
Hogs	_____	2805	3299	1854
Sheep - farm flock	_____	167	211	626
Chickens	_____	773	784	676
All productive livestock	_____	5700	6890	4325
Crops, seed and feed	_____	1375	3328	437
Agricultural conservation payments	_____	40	37	27
Income from labor off the farm	_____	62	78	52
Miscellaneous	_____	186	193	274
(1) Total returns & net increases	_____	7363	10526	5115
EXPENSES AND NET DECREASES				
Horses	_____	$ 29	$ 17	$ 78
Tractor	_____	651	830	616
Truck	_____	116	239	85
Auto (farm share)	_____	362	275	471
Gas engine and elect. exp. (f.shr.)	_____	78	80	73
Hired power	_____	111	144	91
Total power	_____	1347	1585	1414
Crop and general machinery	_____	496	620	475
Livestock equipment	_____	115	98	124
Buildings, fencing, and tiling	_____	400	311	244
Misc. productive livestock exp.	_____	146	141	155
Labor	_____	648	925	568
Real estate taxes	_____	305	378	270
Personal property tax	_____	54	81	31
Insurance	_____	42	28	70
General farm	_____	41	48	14
Interest on farm capital	_____	1364	1771	1171
(2) Total expenses & net decreases	_____	4958	5986	4536
(3) Oper. labor earnings(1)-(2)		2405	4540	579

* 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 four 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, 1950

Items	Your farm	Average of 55 farms	11 most profitable farms	11 least profitable farms	Your farm	Average of 55 farms	11 most profitable farms	11 least profitable farms
Adult equiv. - family	____	2.5	2.4	2.3				
- others	____	.2	.4	.1				
Whole milk	____	487 qts.	503	348	____	$ 43.63	$ 40.70	$39.12
Skim milk	____	135 qts	156	66	____	3.00	7.12	.33
Cream	____	83 pts.	103	37	____	20.21	21.93	11.21
Farm made butter	____	5 lbs.	25.	2	____	3.41	15.86	1.01
Beef	____	148 lbs.	211	126	____	26.46	49.09	22.09
Hogs	____	393 lbs.	384	394	____	64.53	64.49	60.57
Sheep	____	---	---	---	____	-----	-----	-----
Poultry	____	84 lbs.	103	46	____	15.76	15.85	11.54
Eggs	____	105 doz.	106	76	____	29.61	29.04	24.13
Potatoes	____	3 bu.	1	-	____	3.38	1.90	.73
Vegetables & fruits					____	12.90	13.20	1.05
Farm fuel					____	1.00	3.09	1.91
Rental vl. of house					____	222.22	231.09	221.71
Total						446.11	493.36	395.40

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 $157 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, 1950

Items	Your farm	Average of 53 farms*	11 most profitable farms	11 least profitable farms
Number of persons in family	____	3.7	3.5	3.2
Number of adult equivalents in family	____	2.5	2.4	2.3
Number of other adult equivalents**	____	.2	.4	.1
EXPENSES				
Food and meals bought	$____	$ 559	$ 675	$ 480
Operating and supplies	____	249	287	192
Clothing and clothing materials	____	213	264	141
Personal care, personal spending	____	93	123	71
Furnishings and equipment	____	202	172	168
Education, recreation and development	____	69	88	51
Medical care and health insurance	____	161	219	99
Church, welfare, gifts	____	114	134	98
Personal share of auto expense	____	96	90	113
Household share of elect. & gas eg. exp.	____	43	44	36
H.H.& pers. shr. of new auto & motors bot.	____	88	36	35
Total cash living expenses	____	1887	2132	1484
State and federal income tax	____	25	99	4
Insurance	____	93	145	46
Total household and pers. cash exp.	____	2005	2376	1534
Food furnished by the farm	____	222	261	175
Fuel furnished by the farm	____	1	2	2
House rental	____	219	231	196
Total cash expenses and perquisites	____	2447	2870	1907
Purchase of stocks, bonds,and other invest.	____	68	294	---
RECEIPTS				
Sale of investments	____	14	--	4
Income from outside investments	____	76	53	148
Veterans compensation	____	1510	1465	1544
Misc. income	____	172	821	10

* Two 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, 1950 (Operator's Share)

	Your farm		12 Owners	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31
Total acres in farm	_____		177.1	
Owned	_____		177.1	
Rented	_____		-----	
Total farm capital	_____	_____	$19841	$22216
Accounts receivable	_____	_____	16	17
Stocks and bonds	_____	_____	71	---
Life insurance	_____	_____	121	140
Other real estate	_____	_____	---	---
Other outside investments	_____	_____	48	60
Total outside investments	_____	_____	240	200
Cash on hand and in bank	_____	_____	408	133
Other household & personal assets	_____	_____	1289	1507
Total cash, household & personal assets	_____	_____	1697	1640
TOTAL ASSETS	_____	_____	21794	24073
Federal Land Bank Mortgage	_____	_____	401	386
Other mortgages on land operated	_____	_____	6708	6513
Mortgages on outside real estate	_____	_____	--	--
Production Credit Association	_____	_____	112	267
Crop loans	_____	_____	137	27
Other chattel mortgages	_____	_____	544	561
Notes payable	_____	_____	1544	1692
Accounts payable	_____	_____	170	352
TOTAL LIABILITIES	_____	_____	9616	9798
Farmer's net worth	_____	_____	12178	14275
Gain in net worth				+2097

	33 renters*	
	Jan. 1	Dec. 31
Total acres rented	229.2	
Total farm capital	$7898	$10682
Accounts receivable	17	17
Stocks and bonds	60	95
Life insurance	132	176
Real estate	48	459
Other outside investments	6	15
Total outside investments	246	745
Cash on hand and in bank	303	370
Other household and personal assets	1473	1602
Total cash, household & personal assets	1776	1972
TOTAL ASSETS	9937	13416
Real estate mortgages	--	725
Production Credit Association	24	19
Crop Loans	346	227
Chattel mortgages	1105	1173
Notes payable	1274	1752
Accounts payable	429	449
TOTAL LIABILITIES	3178	4345
Farmer's net worth	6759	9071
Gain in net worth		+ 2312

* 7 rented livestock and crop share, 7 crop share and 19 cash and crop share

Table 7. Summary of Farm Earnings by Tenure, 1950 (Operator's Share)

	Your farm	12 owners	33 renters
FARM RECEIPTS			
Dairy and dual purpose cows		$ 326	$ 216
Dairy products		506	544
Other dairy and dual purpose cattle		450	215
Beef Cattle		621	519
Hogs		1917	2251
Sheep and wool		--	56
Poultry		374	148
Eggs		696	519
Horses		8	4
Corn		763	442
Small grain		933	796
Other crops		76	190
Machinery & equipment sold		369	449
Agricultural adjustment payments		59	26
Income from work off the farm		90	171
Misc.		20	18
(1) Total farm sales		7208	6564
(2) Increase in farm capital		2375	2784
(3) Family living from the farm		462	406
(4) Total farm rec. (1)+(2)+(3)		10045	9754
FARM EXPENSES			
Dairy and dual purpose cows bot		$ 233	$ 167
Other dairy & dual. pur. cattle bot		157	128
Beef cattle bot. (including feeders)		733	332
Hogs bot		192	286
Sheep bot (including feeders)		--	17
Poultry bot (including turkeys)		135	89
Horses bot		--	1
Misc. livestock expenses		140	129
Misc. crop expenses		453	375
Feed bot		1200	888
Custom work hired		242	276
Mech. power mach. (farm share)(new)		685	1034
Mech. power mach. (farm share)(upkeep)		181	205
Mech. power (farm share) (gas, oil, etc.)		631	721
Crop and general mach. (new)		348	1090
Crop and general mach. (upkeep)		96	135
Livestock equipment (new)		136	159
Livestock equipment (upkeep)		39	44
Land, buildings & fencing (new)		857	14
Buildings and fencing (upkeep)		185	398
Hired labor		80	196
Taxes (real estate & pers. property)		251	43
General farm and insurance		118	58
Cash rent		--	181
Interest paid		284	96
(5) Total farm purchases		7376	7062
(6) Decrease in farm capital		--	--
(7) Interest on farm capital		768	368
(8) Unpaid family labor		217	246
(9) Board furnished hired labor		30	61
(10) Total farm exp. (sum of (5) to (9))		8391	7737
(11) Operator's labor earn.(4) - (10)		1654	2017
(12) Ret. cap. & family lab. (7)+(8)+(11)		2639	2631

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 33 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 $4540 and of those in the lower 20 per cent was $579. This is a range of $3961 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	Average	farms	labor earnings
Below 80	68	14	$1471
80 - 119	100	29	2505
120 and above	143	12	3256

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 in high return crops		No. of	Average operator's
Range	Average	farms	labor earnings
Below 35.0	28.1	11	$1896
35.0 - 54.9	45.3	32	2352
55.0 and above	61.4	12	3086

Return from Livestock. This is a measure of feeding efficiency. The majority of these farmers maintain some cattle, hogs and poultry. 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* Range	Average	No. of farms**	Average operator's labor earnings
Below 80	71	9	$1784
80 - 119	102	34	2561
120 and above	126	8	2473

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

**The records from 4 farms with less than 30 per cent of the work units on livestock were omitted from this table

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.

Table 11. Relation of Amount of Livestock to Farm Earnings

Livestock units per 100 acres Range	Average	No. of farms	Average operator's labor earnings
Below 6.5	4.8	12	$1754
6.5 - 15.9	10.4	34	2558
16.0 and above	23.0	9	2700

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 12. Average farm earnings tend to increase with an increase in size of business if 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 12. Relation of Size of Business to Farm Earnings

Work units Range	Average	No. of farms	Average operator's labor earnings
Below 225	204	8	$1846
225 - 449	306	37	2331
450 and above	534	10	3130

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 13. Relation of Work Accomplished Per Worker to Farm Earnings

Work units per worker		No. of	Average operator's
Range	Average	farms	labor earnings
Below 200	177	11	$1838
200 - 279	240	31	2483
280 and above	310	13	2702

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 14. Relation of Expenses to Farm Earnings

Expenses per work unit		No. of	Average operator's
Range	Average	farms	labor earnings
$9.00 and above	$10.80	11	$1676
$9.00 - $5.21	7.19	31	2557
Below $5.20	4.64	13	2662

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 15. 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 15. 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	6	____	xxxx	$ 410
2 or 3	27	____	xxxxxxxxxxxxxxxxxxxx	2235
4 or 5	17	____	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	3108
6 or 7	5	____	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	3336

The array in Table 15 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 16.

Table 16. 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 17. Measures of Farm Organization and Management Efficiency, 1950

Measures used in chart on page 15	Your farm	Average of 55 farms	11 most profitable farms	11 least profitable farms
Operator's labor earnings	$_____	$2405	$4540	$ 579
(1) Crop yields*	_____	100	115	83
(2) % of tillable land in high ret.crops**	_____	45.3	50.6	39.3
(3) Ret. for $100 feed to prod. livestock***	_____	100	97	92
(4) Prod. livestock units per 100 acres****	_____	11.2	11.5	10.3
(5) Size of business - work units	_____	332	391	285
(6) Work units per worker	_____	255	261	219
(7) Pow.,mach.,equip., & bldg. exp. per work unit	_____	7.31	6.93	8.05
Items related to some of the above measures:				
(3) Index of return for $100 feed from				
Dairy cattle (See pages 20 and 21)	_____	100	84	112
Dual purpose cattle(See pages 20 and 21)	_____	100	--	--
Beef breeding herd (See page 25)	_____	100	100	--
Beef cattle - feeders (See page 25)	_____	100	73	--
Hogs (See page 22)	_____	100	102	85
Sheep - farm flock (See page 26)	_____	100	--	--
Chickens (See page 23 and 24)	_____	100	109	88
(4) Number of animal units	_____	20.7	26.6	18.6
(5) Work units on crops	_____	150	198	133
Work units on productive livestock	_____	172	180	143
Other work units	_____	10	13	9
(6) Number of family workers	_____	1.2	1.2	1.2
Number of hired workers	_____	.1	.3	.1
Total number of workers	_____	1.3	1.5	1.3
(7) Power expense per work unit	$_____	$4.20	$4.22	$5.03
Crop machinery expense per work unit	_____	1.53	1.64	1.77
Livestock equip. expense per work unit	_____	.35	.25	.41
Bldgs. & fencing exp. per work unit	_____	1.23	.82	.84

*Given as a percentage of the average.

**Crops are marked in Table 18 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 55 farms included in this summary are located between the dotted lines across the center of this page.

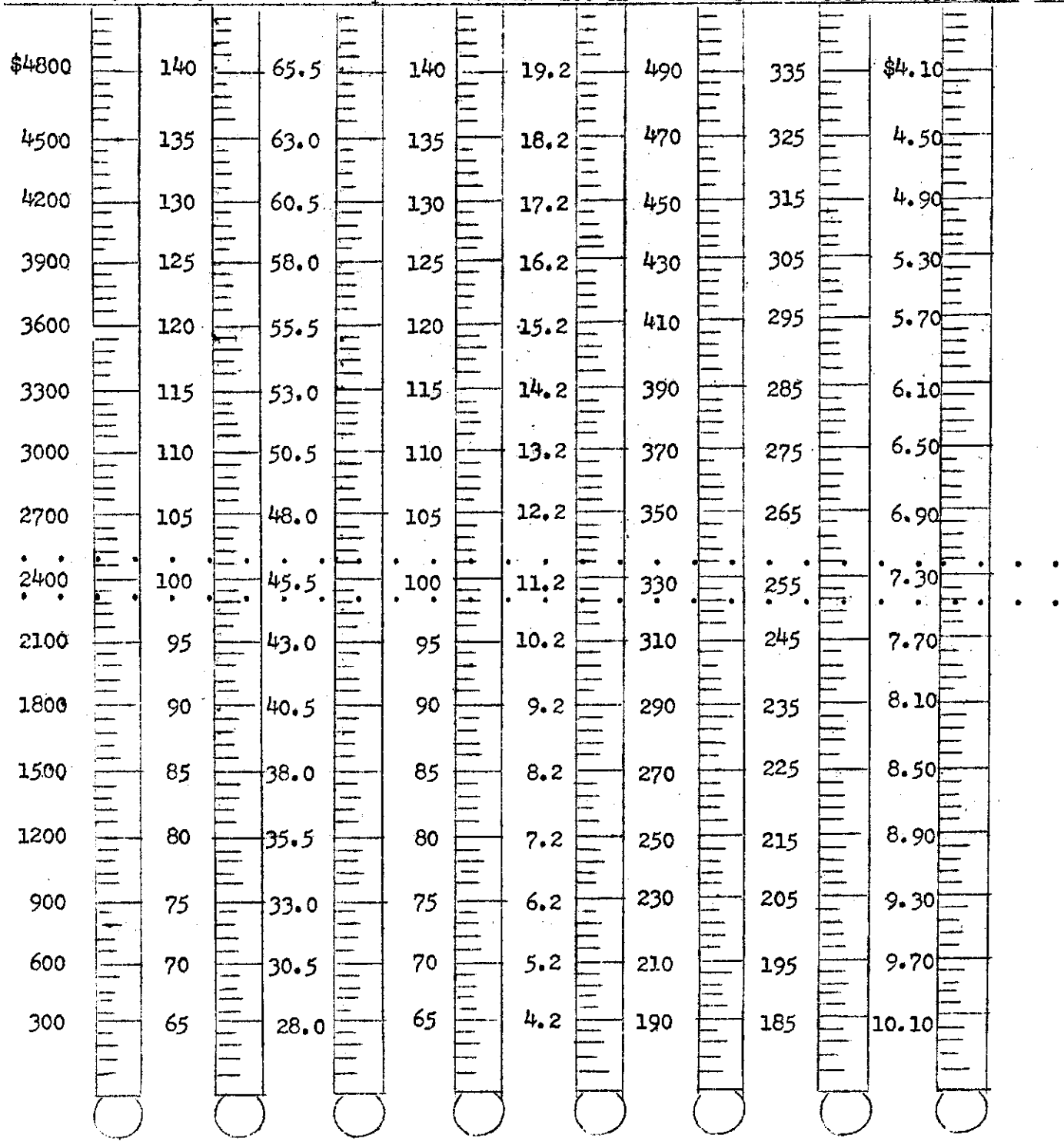

Table 18. Distribution of Acres in Farm, 1950

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 55 farms	11 most profitable farms	11 least profitable farms
Canning peas	(A)	5	____	1.3	5.5	--
Flax	(C)	33	____	18.6	15.8	21.0
Barley	(D)	31	____	15.0	19.9	18.5
Oats	(D)	53	____	43.6	49.8	38.4
Wheat	(D)	22	____	7.7	8.1	11.6
Rye, Millet and buckwheat	(D)	8	____	1.5	1.3	.5
Total small grain		55	____	87.7	100.4	90.0
Corn grain	(A)	55	____	53.4	77.1	42.7
Corn silage	(B)	21	____	3.4	3.1	2.5
Sweet corn	(B)	1	____	.3	1.3	---
Soybeans for grain	(B)	25	____	10.0	16.5	3.5
Corn fodder	(D)	3	____	.3	--	1.0
Norghum Sorghum	(D)	3	____	.4	--	.9
Total cultivated crops		55	____	67.8	98.0	50.6
Alfalfa hay	(A)	45	____	11.0	11.3	9.9
Other hay and seed crops	(*)	24	____	3.1	4.3	4.6
Total tillable land in ~~pasture~~ hay		49	____	14.1	15.6	14.5
Alfalfa pasture	(A)	14	____	2.8	2.5	2.9
Other pasture on tillable land	(**)	19	____	3.4	3.2	3.0
Total tillable land in pasture		28	____	6.2	5.7	5.9
Tillable land not cropped	(D)	11	____	3.6	2.6	5.0
Total tillable land		55	____	179.4	222.3	166.0
Wild hay (non-tillable)		20	____	3.8	4.7	5.0
Non-tillable pasture		36	____	17.0	13.7	19.0
Timber (not pastured)		2	____	.2	.5	.5
Roads and waste			____	16.4	27.8	19.4
Farmstead			____	6.6	7.5	7.2
Total acres in farm			____	223.4	276.5	217.1
Per cent land tillable			____	80.3	80.5	76.4
Per cent tillable land in high ret. crops			____	45.3	50.6	39.3

* 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 19. Crop Yields Per Acre, 1950

Crop	Your farm	Average of farms growing each crop
Canning peas	_____	$32.34
Flax, bu.	_____	9.8
Barley, bu.	_____	28.1
Oats, bu.	_____	34.8
Wheat, bu.	_____	12.1
Millet, bu.	_____	15.9
Corn grain, bu.	_____	35.8
Corn silage, tons	_____	7.9
Soybeans, bu.	_____	11.7
Alfalfa hay, tons	_____	1.8
Other leg. & leg. mix. for hay, tons	_____	1.5
Brome or timothy hay, tons	_____	1.3
Annual hay, tons	_____	1.2
Wild hay on non-tillable land, tons		.9

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 56 to 356 with an average of 173.4. (Table 20) 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 20. Power and Machinery Expenses Per Crop Acre, 1950

Items	Your farm	Average of 55 farms	11 most profitable farms	11 least profitable farms
Crop acres per farm	_____	173.4	218.7	160.1
Tractor and horse exp. per crop acre	_____	$4.22	$3.95	$5.02
Crop & gen.mach.exp. per crop acre	_____	2.99	2.94	3.13

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 21. Thirty-nine farmers did not maintain horses.

Table 21. Feed Cost for Horses, 1950

Items	Your farm	Average of 16 farms
Feed per horse, lbs.:		
Grain	_____	494
Hay	_____	2720
Fodder and stover	_____	433
Feed cost per horse:		
Grain	_____	$10.57
Roughage	_____	21.37
Pasture	_____	7.80
Total feed cost	_____	39.74
Number of work horses	_____	1.8
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 22). Ninety-six per cent of the farmers kept hogs and eighty per cent raised poultry.

Table 22. Amount of Livestock, 1950

	Your farm	Average of 55 farms	11 most profitable farms	11 least profitable farms
Number of milk cows	_____	4.7	3.2	4.3
Number of other dairy cattle	_____	5.9	3.0	5.2
Number beef cows	_____	.9	3.2	.2
Number of sheep*	_____	9.4	10.9	36.3
Number of hens	_____	154	179	139
Number of litters of pigs raised	_____	12	14	8
Pounds of feeder cattle produced	_____	1111	3180	—
Pounds of hogs produced	_____	15,107	18,687	10,341
Number of horses	_____	.5	.5	.8

*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 23. 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 23. Total Feed Costs and Returns From Your Livestock Enterprises, 1950

	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	Turkeys
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 24, 25, and 26. Twenty-nine herds were classified as dairy cattle and 7 herds were classified as dual purpose cattle. The return over feed cost per dairy cow varied from $-79.63 to $163.68 among the 29 dairy herds. The return over feed per dual purpose cow ranged from a low of $-18.96 to a high of $84.48. 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 24. Factors of Cost and Returns from Dairy and Dual Purpose Cows, 1950

Items	Your farm	Average of 29 dairy herds	Average of 7 dual purpose herds
Pounds of butterfat per cow	_____	223	168
Price rec. per lb. B.F. sold (cents)	_____	66.9	65.1
Foods per cow, lbs:			
Corn	_____	1317	1057
Small grain	_____	687	609
Commercial feeds	_____	232	53
Legume hay	_____	3481	2394
Other hay	_____	1480	2373
Fodder and stover	_____	308	518
Total concentrates	_____	2236	1719
Total hay and fodder	_____	5269	5285
Silage	_____	4095	5843
Total digestible nutrients*	_____	5039	4927
T.D.N. per lb. B.F.	_____	24.4	31.8
% T.D.N. that is protein	_____	14.4	11.6
Feed cost per cow:			
Concentrates	$_____	$50.90	$35.64
Roughages	_____	56.42	59.39
Pasture	_____	7.37	7.44
TOTAL FEED COSTS	$_____	114.69	102.47
Value of produce per cow:			
B.F. sales	$_____	$134.54	$89.93
Dairy produce used in house	_____	15.33	16.35
Milk to livestock	_____	23.14	22.37
Net increases in value of cows	_____	-1.53	10.92
TOTAL VALUE PRODUCED	$_____	171.48	139.57
RETURNS ABOVE FEED COST PER COW	$_____	$56.79	$37.10
RETURNS FOR $100 OF FEED	$_____	162	144
Feed cost per lb. B.F. (cents)	_____	54.7	67.3
Number of cows**	_____	6.8	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 25. Feed Costs and Returns from Other Dairy and Dual Purpose Cattle, 1950

Items	Your farm	Average of 26 dairy herds*	Average of 7 dual purpose herds
Feeds per head, lbs.:			
Concentrates	_____	682	826
Hay and fodder	_____	2514	2950
Silage	_____	1622	2038
Skim milk	_____	1157	1307
Whole milk	_____	221	208
Feed cost per head:			
Concentrates	$_____	$15.12	$17.58
Roughages	_____	26.18	28.41
Milk	_____	10.71	10.61
Pasture	_____	2.24	3.44
TOTAL FEED COSTS PER HEAD	$_____	$54.25	$60.04
Net inc. in value of other dairy cattle	_____	103.60	133.03
RETURNS ABOVE FEED COST PER HEAD	_____	49.35	72.99
RETURNS FOR $100 OF FEED	_____	215	221
Number of head of other dairy cattle	_____	8.1	10.2

Table 26. Feed Costs and Returns From All Dairy and Dual Purpose Cattle, 1950

Items	Your farm	Average of 29 dairy herds	Average of 7 dual purpose herds
Feeds per animal unit, lbs.:			
Concentrates	_____	2045	1652
Hay and fodder	_____	5503	5296
Silage	_____	4425	5020
Feed cost per animal unit:			
Concentrates	$_____	$46.39	$34.60
Roughages	_____	60.48	56.40
Pasture	_____	6.79	6.85
TOTAL FEED COST	$_____	113.66	97.85
Value of produce per animal unit:			
Dairy products	$_____	113.35	65.22
Net increase in val.of dairy cattle	_____	77.61	105.74
TOTAL VALUE	$_____	190.96	170.96
RETURNS ABOVE FEED PER ANIMAL UNIT	$_____	77.30	73.11
RETURNS PER $100 OF FEED	$_____	181	178
Animal units of dairy cattle	_____	10.4	12.5

*Some farmers having both a milking herd and a beef herd, used a beef bull, and included all the young stock in the beef herd.

HOGS

The return over feed cost per 100 pounds of hogs produced varied from $9.11 for those farmers ranking in the upper fifth in feeding efficiency to a return of $ .76 over 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 27. Feed Costs and Returns From Hogs, 1950

Items	Your farm	Average of 53 farms	11 farms highest in returns above feed	11 farms lowest in returns above feed
Feed per cwt. hogs produced, lbs.:				
Corn	_____	353	311	$429
Small grain	_____	131	79	188
Commercial feeds	_____	32	47	39
Total concentrates	_____	516	437	656
Skim milk and buttermilk	_____	95	77	98
Feed cost per cwt. hogs produced:				
Concentrates	$_____	$11.80	$10.11	$15.58
Skim milk and buttermilk	_____	.35	.28	.37
Pasture	_____	.15	.16	.18
TOTAL FEED COSTS	_____	12.30	10.55	16.13
Net increase in val.per cwt. hogs prod.	_____	$18.05	$19.66	$16.89
RETURNS ABOVE FEED COST PER CWT. HOGS PROD.	_____	5.75	9.11	.76
RETURNS FOR $100 OF FEED	_____	152	188	107
Price received per cwt. hogs sold	_____	17.90	19.52	17.42
No. of spring litters raised	_____	9.1	10.0	9.5
No. of fall litters raised	_____	3.5	6.3	3.1
Total No. of litters raised	_____	12.6	16.3	12.5
No. of pigs born per litter	_____	8.0	8.1	6.9
No. of pigs weaned per litter	_____	6.0	6.2	4.4
Pounds of hogs produced	_____	16,174	17,559	14,875

CHICKENS

Fourteen out of the 44 farmers raising chickens failed to receive a return large enough to cover the cost of feed. The average return over feed from the 44 flocks included in this report was $0.65 per hen (Table 28).

Table 28. Feed Costs and Returns from Chickens, 1950

Items	Your farm	Average of 44 farms	9 farms highest in returns above feed	9 farms lowest in returns above feed
Feed per hen, lbs.:				
Grain	_____	105	92	113
Commercial feeds	_____	38	34	42
Total concentrates	_____	143	126	155
Skim milk and buttermilk	_____	11	8	26
TOTAL FEED COST PER HEN	$_____	$3.98	$3.38	$4.62
Value of produce per hen:				
Eggs sold and used in house	$_____	$4.13	$5.12	$3.21
Net increase in value of chickens	_____	.50	1.02	.20
TOTAL VALUE PRODUCED	$_____	$4.63	$6.14	$3.41
RETURNS ABOVE FEED COST PER HEN	$_____	$ .65	$2.76	$-1.21
RETURNS FOR $100 OF FEED	$_____	$120	$185	$72
Price rec'd. per doz. eggs sold (cents)	_____	30.6	33.0	28.9
Eggs laid per hen	_____	161	187	133
Ave. no. of hens on farm during the yr.	_____	184	218	174
% of hens that are pullets	_____	85	90	86
% of death loss of hens	_____	12	8	15
Number of chicks bought:				
Straight run	_____	68	58	110
Pullets	_____	228	312	195
Cockerels	_____	12	16	11
Pounds of poultry produced	_____	982	1397	940

Some of the important factors that affected the return over feed were:

1. Quantity of feed required per hen
2. Price received per dozen eggs sold
3. Eggs laid per hen
4. Per cent of hens that are pullets
5. Percentage death loss of hens

Table 29. Feed Costs and Returns from Chicks, 1950

Items	Your farm	Average of 21 flocks
Feed per 100 chicks raised, lbs.:		
Grain	_____	1466
Commercial feeds	_____	986
Total concentrates	_____	2452
Skim milk	_____	471
Total feed cost per 100 chicks raised	_____	$80.65
Net increase in val. per 100 chicks	_____	64.26
Return over feed cost per 100 chicks	_____	-16.39
Return for $100 of feed	_____	$80
Number of chicks bot:		
Pullets	_____	241
Straight run	_____	98
Cockerels	_____	15
Price paid per 100 chicks bot:		
Pullets	_____	$39.49
Straight run	_____	24.54
Cockerels	_____	--
Per cent death loss	_____	20
Number chicks raised	_____	302
Price rec'd per pound sold (cts.)	_____	25.9
Pounds of poultry produced	_____	1365

Table 30. Feed Cost and Returns from Laying Hens, 1950

Items	Your farm	Average of 23 flocks
Feed per hen, lbs.:		
Grain	_____	84
Commercial feeds	_____	25
Total concentrates	_____	109
Skim milk	_____	11
Total feed cost per hen	_____	$2.98
Value of produce per hen:		
Eggs sold and used in home	_____	$3.95
Less depreciation and death loss	_____	-.52
Total value produced	_____	$3.43
Return above feed cost per hen	_____	$.45
Return for $100 of feed	_____	$116
Eggs laid per hen	_____	156
Price rec'd per doz. eggs sold (cts.)	_____	29.5
Ave. no. hens on farm during year	_____	204
No. of hens on hand beginning of year	_____	258
% death loss	_____	12
% of hens that are pullets		80

Table 31. Feed Costs and Returns from Beef Breeding Herds, 1950

Items	Your farm	Average of 7 farms
Feed per animal unit, lbs.:		
Concentrates	_____	1446
Legume hay	_____	2299
Other hay	_____	1224
Fodder and stover	_____	--
Silage	_____	4179
Feed cost per animal unit:		
Concentrates	$_____	$31.49
Roughages	_____	40.45
Pasture	_____	9.60
Total feed cost	_____	81.54
Value of produce per animal unit:		
Dairy products	$_____	$7.29
Net increase in value of beef cattle	_____	117.43
Total value produced	_____	124.72
Return over feed cost per animal unit	$_____	$43.18
Return for $100 of feed	$_____	$152
Number of cows and herd bulls	_____	7.2
Number of animal units	_____	12.6
Pounds of beef produced	_____	5080

Table 32. Feed Costs and Returns From Feeder Cattle, 1950

Items	Your farm	Average of 8 farms
Feeds per cwt. beef produced, lbs.:		
Corn	_____	528
Small grain	_____	53
Commercial feeds	_____	35
Legume hay	_____	345
Other hay	_____	191
Fodder and stover	_____	---
Total concentrates	_____	616
Total hay	_____	536
Silage	_____	424
Feed cost per cwt. beef produced:		
Concentrates	$_____	$13.87
Roughages	_____	5.70
Pasture	_____	.72
TOTAL FEED COSTS	$_____	20.29
Net increase in value of feeders	$_____	29.00
RETURNS ABOVE FEED COST PER CWT. BEEF PRODUCED	$_____	$8.71
RETURNS FOR $100 OF FEED	$_____	$198
Price rec'd per cwt. beef sold	$_____	$25.80
Price paid per cwt. beef bought	$_____	$27.79
No. of animal units	_____	14.1
Pounds of beef produced	_____	7634

Table 33. Feed Costs and Returns from a Farm Flock of Sheep, 1950

Items	Your farm	Average of 4 farms
Feed per head,* lbs.:		
Concentrates	_____	125
Legume hay	_____	209
Other hay	_____	70
Fodder and stover	_____	--
Silage	_____	--
Feed cost per head:		
Concentrates	$_____	$2.21
Roughages	_____	2.34
Pasture	_____	1.19
TOTAL FEED COSTS	$_____	5.74
Value of produce per head:		
Wool	_____	$3.80
Net increase in value of sheep	_____	13.42
TOTAL VALUE PRODUCED	$_____	17.22
RETURNS ABOVE FEED COST PER HEAD	_____	$11.48
RETURNS FOR $100 OF FEED	$_____	$311
Price per cwt. of lambs sold	$_____	$29.18
Price per lb. wool sold (cents)	_____	47.9
Pounds of wool per sheep sheared	_____	8.9
Number of ewes kept for lambing	_____	73
% lamb crop *	_____	115
% death loss **	_____	11.6
Pounds of sheep produced	_____	9062
No. of head of sheep *	_____	127.1

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

Table 34. Summary of Farm Inventories by Years

	1947	1948	1949	1950
Number of farms	62	72	88	55
Dairy and dual purpose cows	$438	$685	$702	$828
Other dairy & dual purpose cattle	190	412	415	475
Beef cattle (inc. feeders)	80	464	508	780
Hogs	652	840	784	997
Sheep	104	120	56	161
Poultry	122	182	178	181
Productive livestock (total)	1586	2703	2643	3422
Horses	40	48	51	31
Crop, seed, & feed	1452	2402	2251	2543
Power mach. (farm share)	1223	1594	1728	2139
Crop & general mach. (farm share)	939	1477	1639	2159
Livestock equipment & supplies	156	279	270	349
Mach. & equipment (total)	2318	3350	3637	4647
Miscellaneous	1	1	--	--
Buildings, fences, etc.	4260	5240	5483	6174
Land	8515	8900	10177	10462
Total farm capital	18172	22644	24242	27279

Table 35. Summary of Farm Earnings by Years

	1947	1948	1949	1950
Monthly charge for unpaid family labor	$ 121	$ 129	$ 125	$ 128
Monthly charge for board to hired labor	35	41	35	39
FARM RECEIPTS				
Dairy and dual-purpose cows	$ 88	$ 304	$ 173	$ 279
Dairy products	434	800	555	619
Other dairy & dual purpose cattle	131	317	249	374
Beef cattle	117	459	467	666
Hogs	1601	2101	2097	2606
Sheep and wool	41	127	65	119
Poultry	148	181	156	211
Eggs	441	783	785	621
Horses	6	8	7	7
Corn	1033	910	1210	983
Small grain	1776	1954	1477	1509
Other crops	285	367	284	284
Machinery & equip, sold	139	297	265	412
Agricultural adjustment payments	16	41	14	40
Income from work off the farm	64	147	134	158
Miscellaneous	15	26	18	39
(1) Total farm sales	6335	8822	7956	8927
(2) Increase in farm capital	1913	1931	886	2306
(3) Family living from the farm	348	437	391	446
(4) Total farm receipts (1)+(2)+(3)	8596	11190	9233	11679
FARM EXPENSES				
Dairy and dual purpose cows bought	$ 112	$ 212	$ 140	$ 210
Other dairy and dual-pur. cattle bought	92	122	76	210
Beef cattle bought	35	426	176	408
Hogs bought	187	170	223	331
Sheep bought	82	36	26	31
Poultry bought	71	93	97	104
Horses bought	8	15	6	1
Misc. livestock expense	59	94	96	147
Misc. crop expenses	420	546	436	495
Feed bought	635	834	741	1096
Custom work hired	206	312	291	296
Mech. power mach. (farm share) (new)	535	664	696	846
Mech. power mach. (farm share) (upkp.)	218	235	215	205
Mech. power (f. share) (gas, oil, etc.)	482	653	664	755
Crop and general mach. (new)	441	906	729	931
Crop and general mach. (upkeep)	116	157	137	137
Livestock equipment (new)	79	93	112	145
Livestock equipment (upkeep)	22	41	36	44
Buildings and fencing (new)	231	304	418	385
Buildings and fencing (upkeep)	85	150	124	130
Hired labor	110	229	178	184
Taxes	235	282	299	359
General farm and insurance	37	65	61	83
(5) Total farm purchases	4498	6639	5977	7533
(6) Decrease in farm capital	—	—	—	—
(7) Interest on farm capital	909	1132	1212	1364
(8) Unpaid family labor	399	539	329	319
(9) Board furnished hired labor	31	93	56	58
(10)Total farm exp. (sum of(5) to (8)	5837	8403	7574	9274
(11)Oper. labor earnings (4) - (10)	2759	2787	1659	2405

Table 36. Summary of Acres and Crop Yields Per Farm by Years

	1947	1948	1949	1950
ACRES PER FARM				
Flax	16.2	16.4	24.3	18.6
Barley	11.2	15.1	9.4	15.0
Oats	39.3	43.3	47.1	43.6
Wheat	9.6	10.3	7.3	7.7
Other small grains and peas	4.0	5.1	2.1	2.8
Total small grains and peas	80.3	90.2	90.2	87.7
Corn for grain	47.4	47.8	55.9	53.4
Soybeans for grain	7.5	7.2	7.3	10.0
Other cultivated crops	3.1	3.9	3.9	4.4
Total cultivated crops	58.0	58.9	67.1	67.8
Alfalfa hay	4.0	6.5	6.0	11.0
Other hay and seed crops	2.1	4.0	2.3	3.1
Total tillable land in hay	6.1	10.5	8.3	14.1
Total tillable land in pasture	3.9	5.6	7.3	6.2
Tillable land not cropped	5.9	.8	1.4	3.6
Total tillable land	154.2	166.0	174.3	179.4
Wild hay (non-tillable)	6.5	6.8	8.7	3.8
Non-tillable pasture	15.6	21.0	18.3	17.0
Timber, roads, waste, and farmstead	28.1	22.7	22.1	23.2
Total land in farm	204.4	216.5	223.4	223.4
CROP YIELDS PER ACRE				
Soybeans, bu.	13.0	17.5	13.9	11.7
Flax, bu.	10.1	12.5	9.6	9.8
Barley, bu.	19.9	25.1	20.3	28.1
Oats, bu.	26.0	36.0	31.3	34.8
Wheat, bu.	14.4	14.5	13.4	12.1
Corn for grain, bu.	27.2	46.2	38.0	35.8
Corn for silage, tons	5.6	8.2	7.8	7.9
Alfalfa hay, tons	1.9	2.3	2.0	1.8
Brome or timothy hay, tons	.8	.7	.7	1.3

Table 37. Summary of Miscellaneous Items by Years

	1947	1948	1949	1950
MEASURES OF FARM ORGANIZATION AND MANAGEMENT EFFICIENCY				
% high return crops	45.5	41.1	44.1	45.3
A.U. Livestock per 100 A.	6.7	9.8	9.6	11.2
No. of work units	231	314	315	332
Work units per worker	165	209	225	255
Expenses per work unit	$7.04	$7.09	$7.11	$7.31
AMOUNT OF LIVESTOCK				
No. of milk cows	3.2	4.9	4.5	4.7
No. of other dairy cattle	3.3	6.4	5.8	5.9
No. of head of sheep	6.7	7.6	4.4	9.4
No. of hens	102	157	160	154
Lbs. hogs produced	7093	9865	11727	15107
No. of litters of hogs raised	5.2	6.4	8.4	12.2
No. of horses	.9	1.2	.8	.5
PRODUCTION PER UNIT OF LIVESTOCK				
Lbs. B.F. per dairy cow	206	212	216	223
Lbs. B.F. per dual purpose cow	205	157	171	168
Pigs weaned per litter	6.1	6.2	6.2	6.0
No. eggs laid per hen	146	153	162	161
Lbs. wool per sheep sheared	9.5	7.6	8.5	8.9
% lamb crop	129	97	111	115
PRICE RECEIVED PER				
Lb. B.F. sold (cts.)	80.6	87.8	66.3	66.5
Cwt. hogs sold	$24.22	$22.88	$17.23	$17.90
Cwt. beef sold	22.26	28.64	22.06	25.80
Cwt. lambs sold	21.85	22.87	21.49	29.18
Lb. wool sold (cts.)	35.4	42.8	39.3	47.9
Doz. eggs sold (cts.)	37.8	40.1	38.6	30.6
RETURN ABOVE FEED COST PER				
Dairy cow	$62.51	$104.88	$56.74	$56.79
Dual purpose cow	33.70	69.91	48.37	37.10
Animal unit in beef breeding herd	--	78.55	22.37	43.18
Cwt. feeder cattle produced	5.12	8.24	9.99	8.71
Cwt. hogs produced	6.97	6.23	4.35	5.75
Head of sheep	7.76	7.16	7.01	11.48
Hen	.66	1.72	2.25	.65
FEED COST PER				
Dairy cow	$117.53	$118.02	$110.78	$114.69
Dual purpose cow	140.06	108.59	82.71	102.47
An. unit in beef breeding herd	--	75.93	58.19	81.54
Cwt. feeder cattle produced	18.23	30.03	15.48	20.29
Cwt. hogs produced	17.19	14.76	10.71	12.30
Head of sheep	8.15	5.73	4.45	5.74
Hen	5.18	4.00	3.67	3.98
Horse	43.67	33.12	32.64	39.74