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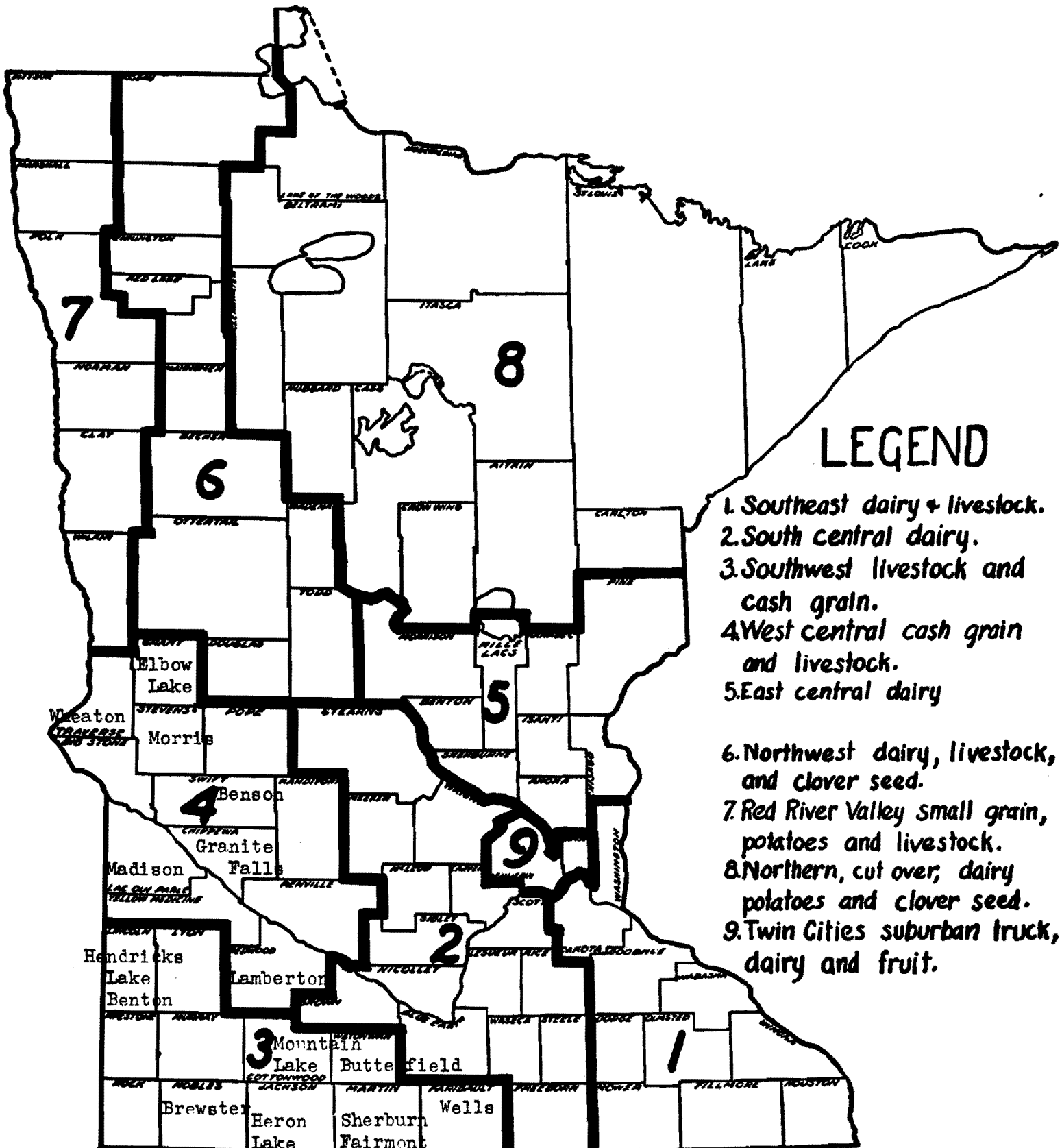
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**1951 ANNUAL REPORT**  
**VETERANS**  
**FARM MANAGEMENT SERVICE**  
**SOUTHWESTERN MINNESOTA**

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UNIVERSITY OF MINNESOTA  
Department of Agriculture  
and  
Vocational Division  
MINNESOTA DEPARTMENT OF EDUCATION  
Cooperating  
----- O -----

Report No. 198  
Division of Agricultural Economics  
University Farm  
St. Paul 1, Minnesota  
July, 1952

# TYPE-OF-FARMING AREAS IN MINNESOTA



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, 1951**

T. R. Nodland, H. W. Swanson 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, B. F. Stanton, R. M. Dennistoun and H. G. Rouths of the Division of Agricultural Economics aided in closing the records.

This report deals with the veterans enrolled by sixteen schools located in southwestern Minnesota (Type-of-Farming Area 3 and 4). 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 1951:

Benson	2	Granite Falls	4	Madison	5
Brewster	2	Hendricks	2	Morris	6
Butterfield	5	Heron Lake	2	Mountain Lake	5
Elbow Lake	3	Lake Benton	1	Sherburn	3
Fairmont	8	Lamberton	6	Wells	2
				Wheaton	<u>10</u>
				Total	66

Data on the succeeding pages are shown for 61 farms. Five farms were omitted from all of the averages in this report 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 \$13,340 to \$88,375. 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 51 out of the 61 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 Minnesota Agri. Expt. Sta. Bul. 347  
May, 1940.

Table 1. Summary of Farm Inventories, 1951\*

Items	Your Farm		Average of 61 farms	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31
Size of Farm (acres)			235	
Size of business (work units)**			366	
Dairy and dual purpose cows			\$ 1019	\$ 1217
Other dairy & dual purpose cattle			491	688
Beef cattle			1116	1655
Hogs			1103	1246
Sheep			208	328
Poultry			183	183
Productive livestock (total)			4120	5317
Horses			25	16
Crop, seed, and feed			2718	2454
Power mach. (farm share)			2347	2477
Crop & general mach. (farm share)			2486	2892
Livestock equip. (total)			473	524
Mach. and equipment (total)			5306	5893
Misc.			-	7
Buildings, fences, etc.			7884	7995
Land			17442	17442
Total farm capital			37495	39124

Items	12 most profitable farms		12 least profitable farms	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31
Size of farm (acres)	352		196	
Size of business (work units)**	400		315	
Dairy & dual purpose cows	508	665	900	1432
Other dairy & dual purpose cattle	237	269	575	825
Beef cattle	2285	3277	1167	1228
Hogs	704	894	1106	1027
Sheep	2	4	58	326
Poultry	155	125	175	201
Productive livestock (total)	3891	5234	3981	5039
Horses	23	22	28	7
Crop, seed, and feed	2192	2759	2776	2272
Power mach. (farm share)	3029	3099	2395	2629
Crop & general mach.	2796	3327	2259	2706
Livestock equipment & supplies	338	363	490	568
Mach. & equipment (total)	6163	6789	5144	5903
Buildings, fences, etc.	7438	7715	11716	11474
Land	21911	21911	19811	19811
Total farm capital	41618	44430	43456	44506

\*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), 1951

Items	Your farm	Average of 61 farms	12 most profitable farms	12 least profitable farms
<b>FARM RECEIPTS</b>				
Dairy and dual-purpose cows		\$ 292	\$ 123	\$ 159
Dairy products		759	442	778
Other dairy & dual-purpose cattle		277	130	260
Beef cattle		1049	1431	1255
Hogs		3424	2345	3613
Sheep and wool		212	-	68
Poultry (including turkeys)		727	144	136
Eggs		817	654	759
Horses		9	-	19
Corn		1118	1728	1245
Small grain		1753	4127	896
Other crops		614	809	435
Machinery & equip. sold		512	684	728
Agricultural adjustment payments		47	57	20
Income from work off the farm		123	132	73
Miscellaneous		40	18	21
(1) Total farm sales		11773	12824	10471
(2) Increase in farm capital		1629	2812	1050
(3) Family living from the farm		510	582	594
(4) Total farm receipts (1)+(2)+(3)		13912	16218	12115
<b>FARM EXPENSES</b>				
Dairy and dual-purpose cows bought		\$ 194	\$ 182	\$ 252
Other dairy and dual-pur.cattle bot.		148	38	304
Beef cattle bought		775	1025	445
Hogs bought		471	134	724
Sheep bought		134	-	265
Poultry bought (including turkeys)		257	58	103
Horses bought		2	-	5
Misc. livestock expense		174	114	131
Misc. crop expenses		584	662	553
Feed bought		1669	1012	1414
Custom work hired		321	338	318
Mech. power mach. (farm share)(new)		819	909	988
Mech. power mach. (farm share)(upkp.)		212	207	202
Mech. power(f.share)(gas,oil,etc.)		776	819	784
Crop and general mach. (new)		955	1114	1105
Crop and general mach. (upkeep)		154	155	135
Livestock equipment (new)		152	95	161
Livestock equipment (upkeep)		78	53	64
Buildings and fencing (new)		514	588	269
Buildings and fencing (upkeep)		110	40	110
Hired Labor		191	163	217
Taxes		412	547	359
General farm and insurance		83	74	74
(5) Total farm purchases		9185	8327	8982
(6) Decrease in farm capital		-	-	-
(7) Interest on farm capital		1915	2151	2199
(8) Unpaid family labor		437	685	380
(9) Board furnished hired labor		45	60	53
(10) Total farm exp. (sum of (5) to (9))		11582	11223	11614
(11) Oper. labor earnings (4)-(10)		2330	4995	501

Table 3. Summary of Farm Earnings (Enterprise Statement) 1951\*

Items	Your farm	Average of 61 farms	12 most profitable farms	12 least profitable farms
<b>RETURNS AND NET INCREASES</b>				
Dairy and dual purpose cows	_____	954	576	980
Other dairy & dual pur. cattle	_____	653	231	668
Beef breeding herd	_____	485	1300	376
Feeder cattle	_____	346	163	489
Hogs	_____	3151	2456	2864
Sheep	_____	197	3	71
Turkeys	_____	413	-	4
Chickens	_____	934	763	880
All productive livestock	_____	7133	5492	6332
Crops, seed and feed	_____	872	5518	33
Agricultural conservation payments	_____	47	57	26
Income from labor off the farm	_____	38	45	9
Miscellaneous	_____	188	230	245
(1) Total returns & net increases	_____	8278	11342	6645
<b>EXPENSES AND NET DECREASES</b>				
Horses	_____	14	18	16
Tractor	_____	728	749	709
Truck	_____	93	155	71
Auto (farm share)	_____	373	367	384
Gas engine and elect. exp. (f.share)	_____	77	65	77
Hired power	_____	119	105	130
Total power	_____	1404	1459	1387
Crop and general machinery	_____	632	642	607
Livestock equipment	_____	170	118	137
Buildings, fencing and tiling	_____	395	244	509
Misc. productive livestock exp.	_____	174	114	131
Labor	_____	763	998	741
Real estate taxes	_____	346	492	306
Personal property tax	_____	66	55	53
Insurance	_____	37	35	33
General farm	_____	46	39	41
Interest on farm capital	_____	1915	2151	2199
(2) Total expenses & net decreases	_____	5948	6347	6144
(3) Oper. labor earnings (1)-(2)	_____	2330	4995	501

\* 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 expenses.

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, 1951

Items	Your farm	Average of 60 farms*	Your farm	Average of 60 farms*
Adult equiv. - family	_____	2.4	_____	
- others	_____	.5	_____	
Whole milk	_____	685 qts.	_____	\$ 61.16
Skim milk	_____	37 qts.	_____	1.06
Cream	_____	79 pts.	_____	22.59
Farm made butter	_____	4 lbs.	_____	2.71
Beef	_____	173 lbs.	_____	39.65
Hogs	_____	291 lbs.	_____	55.09
Sheep	_____	- lbs.	_____	-
Poultry	_____	116 lbs.	_____	22.15
Eggs	_____	112 doz.	_____	40.57
Potatoes	_____	2 bu.	_____	2.78
Vegetables & fruits	_____		_____	8.12
Farm fuel	_____		_____	.34
Rental value of house	_____		_____	262.82
Total	_____		_____	519.04

\* One farmer did not maintain a household.

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 \$171 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, 1951

Items	Your farm	Average profit		
		of 56 farms*	able farms	profit-able farms
Number of persons in family	—	3.7	3.8	3.3
Number of adult equivalents in family	—	2.4	2.3	2.3
Number of other adult equivalents**	—	.3	.4	.3
<b>EXPENSES</b>				
Food and meals bought	\$ —	\$635	\$781	\$607
Operating and supplies	—	230	266	197
Clothing and clothing materials	—	223	194	255
Personal care, personal spending	—	77	82	116
Furnishings and equipment	—	206	170	277
Education, recreation and development	—	87	101	106
Medical care and health insurance	—	157	163	178
Church, welfare, gifts	—	139	232	170
Personal share of auto expense	—	106	108	132
Household share of elect. & gas eg. exp.	—	46	53	36
H.H. & pers. shr. of new auto & motors bot.	—	142	212	74
Total cash living expenses	—	2048	2362	2148
State and federal income tax	—	27	39	37
Insurance	—	86	62	100
Total household and pers. cash exp.	—	2161	2463	2285
Food furnished by the farm	—	251	270	241
Fuel furnished by the farm	—	-	-	?
House rental	—	256	336	338
Total cash expenses and perquisites	—	2668	3069	2866
Purchase of stocks, bonds, and other invest.	—	31	-	-
<b>RECEIPTS</b>				
Income from outside investments	—	42	9	2
Veterans compensation	—	1155	1144	1265
Misc. income	—	11	29	-

\* Five 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, 1951 (Operator's Share)

	Your farm		8 owners	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31
Total acres in farm			183	
Owned			183	
Rented			-	
Total farm capital			\$28825	\$30476
Accounts receivable			495	332
Stocks and bonds			664	594
Life insurance			340	360
Other real estate			-	-
Other outside investments			239	256
Total outside investments			1243	1210
Cash on hand and in bank			541	203
Other household & personal assets			1618	1905
Total cash, household & personal assets			2159	2108
TOTAL ASSETS			32722	34126
Federal Land Bank Mortgage			-	-
Other mortgages on land operated			12308	11895
Mortgages on outside real estate			-	-
Production Credit Association			-	125
Crop loans			740	321
Other chattel mortgages			2424	2691
Notes payable			1253	1024
Accounts payable			140	182
TOTAL LIABILITIES			16865	16238
Farmer's net worth			15857	17888
Gain in net worth				+2031

	7 part-owners		34 renters**	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31
Total acres in farm	292		256	
Owned	164		-	
Rented	128		256	
Total farm capital	\$22323	\$23856	\$10233	\$11415
Accounts receivable	51	29	73	82
Stocks and bonds	395	320	108	77
Life insurance	337	278	234	266
Real estate	1440	1400	7	7
Other outside investments	32	44	10	20
Total outside investments	2204	2042	359	370
Cash on hand and in bank	459	411	261	264
Other household and personal assets	1923	1901	1804	2012
Total cash, household & personal assets	2382	2312	2065	2276
TOTAL ASSETS	26960	28239	12730	14143
Real estate mortgages on land operated	6345	6230	-	-
Mortgages on other real estate	500	500	-	-
Production Credit Association	-	-	-	-
Crop Loans	91	-	233	105
Chattel mortgages	1516	500	1584	1463
Notes payable	2586	3150	1455	1540
Accounts payable	133	99	350	425
TOTAL LIABILITIES	11171	10479	3622	3533
Farmer's net worth	15789	17760	9108	10610
Gain in net worth		+1971		+1502

\* 3 rented for cash and crop share, 1 crop share, and 3 crop and livestock share.

\*\* 1 rented for cash, 3 crop share, 24 cash and crop share, and 6 crop and livestock share,

Table 7. Summary of Farm Earnings by Tenure, 1951 (Operator's Share)

	Your farm	8 owners	7 part owners	34 renters
<b>FARM RECEIPTS</b>				
Dairy and dual purpose cows		\$ 420	\$ 140	\$ 214
Dairy products		1248	544	546
Other dairy and dual purpose cattle		369	110	244
Beef cattle		2013	530	564
Hogs		1916	2742	2780
Sheep and wool		-	659	44
Poultry		2441	504	128
Eggs		1216	505	676
Horses		6	-	10
Corn		814	679	546
Small grain		853	1534	888
Other crops		274	320	440
Machinery & equipment sold		371	308	574
Agricultural adjustment payments		87	57	34
Income from work off the farm		170	252	95
Misc.		27	217	15
(1) Total farm sales		12225	9101	7798
(2) Increase in farm capital		1651	1533	1182
(3) Family living from the farm		415	427	505
(4) Total farm rec. (1)+(2)+(3)		14291	11061	9485
<b>FARM EXPENSES</b>				
Dairy and dual purpose cows bot		\$ 297	\$ 358	\$ 104
Other dairy & dual. pur. cattle bot		145	139	121
Beef cattle bot. (including feeders)		1655	619	310
Hogs bot		318	297	290
Sheep bot (including feeders)		-	167	45
Poultry bot (including turkeys)		1063	105	85
Horses bot		-	7	2
Misc. livestock expenses		262	166	119
Misc. crop expenses		488	761	375
Feed bot		1552	1385	1144
Custom work hired		355	302	264
Mech. power mach. (farm share)(new)		761	536	889
Mech. power mach. (farm share)(upkeep)		173	211	184
Mech. power (farm share)(gas,oil,etc.)		648	812	744
Crop and general mach. (new)		1035	671	797
Crop and general mach. (upkeep)		87	211	141
Livestock equipment (new)		148	136	142
Livestock equipment (upkeep)		41	97	65
Land, buildings & fencing (new)		864	254	137
Buildings and fencing (upkeep)		54	190	26
Hired labor		269	84	201
Taxes (real estate & pers. property)		359	223	47
General farm and insurance		143	71	57
Cash rent		-	52	239
Interest paid		686	407	135
(5) Total farm purchases		11403	8261	6663
(6) Decrease in farm capital		-	-	-
(7) Interest on farm capital		797	747	406
(8) Unpaid family labor		376	416	295
(9) Board furnished hired labor		22	81	46
(10) Total farm exp. (sum of (5) to (9) )		12598	9505	7410
(11) Operator's labor earn. (4)-(10)		1693	1556	2075
(12) Ret. cap. & family lab. (7)+(8)+(11)		2866	2719	2776

### 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 8 owners, 7 part-owners and 34 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 \$4995 and of those in the lower 20 per cent was \$501. This is a range of \$4494 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

Range	Index of crop yields Average	No. of farms	Average operator's labor earnings
Below 80	67	14	\$1090
80 - 119	103	33	2596
120 and above	129	14	2943

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. Choice of crops as computed in this study showed no definite relationship to earnings in 1951. In computing the percentage of land in high return crops corn is given the highest rating and normally merits it. However the yield of corn was so low and the quality so poor that it had little advantage over competing crops in 1951.

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. Although feed is the major item expense in livestock production, an increase in feeding efficiency did not show a relationship to earnings in 1951. Other factors were more important during this year.

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
Range	Average		
Below 91	78	21	\$2342
91 - 115	102	26	2314
116 and above	131	13	2441

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

\*\*One farmer did not maintain 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 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	Average	No. of farms	Average operator's labor earnings
Range	Average		
Below 275	225	14	\$1407
275 - 424	344	35	2497
425 and above	594	12	2920

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 Range	Average	No. of farms	Average operator's labor earnings
Below 215	177	14	\$1747
215 - 299	253	32	2179
300 and above	364	15	3197

**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 Range	Average	No. of farms	Average operator's labor earnings
\$9.00 and above	\$11.11	16	\$1790
\$6.26 - \$8.99	7.32	34	2356
Below \$6.25	5.19	11	2647

**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 inter-relationships 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, 1 or 2	25	—	xxxxxxxxxxxxxxxxxxxx	\$1698
3 or 4	21	—	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	2764
5, 6 or 7	15	—	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	2776

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

\* An animal unit represents one dairy cow or bull, two head of other dairy cattle,  $1\frac{1}{2}$  beef cows or bull, 1 feeder steer or heifer,  $3\frac{1}{3}$  other beef cattle, 7 sheep, 14 lambs,  $2\frac{1}{2}$  hogs, 5 pigs, 50 hens and 1100 pounds of turkey produced.



Table 17. Measures of Farm Organization and Management Efficiency, 1951

Measures used in chart on page 15	Your farm	Average of 61 farms	12 most profit- able farms	12 least profit- able farms
Operator's labor earnings	\$ _____	\$2330	\$4995	\$ 501
(1) Crop yields*	_____	100	110	85
(2) % of tillable land in high ret. crops**	_____	48.0	45.7	46.9
(3) Ret. for \$100 feed to prod. livestock***	_____	100	97	104
(4) Prod. livestock units per 100 acres****	_____	17.9	10.1	16.8
(5) Size of business - work units	_____	366	400	315
(6) Work units per worker	_____	261	267	225
(7) Pow., mach., equip., & bldg. exp. per work unit	_____	\$7.45	\$6.70	\$8.79
Items related to some of the above measures:				
(3) Index of return for \$100 feed from				
Dairy cattle (See pages 20 and 21)	_____	100	87	96
Beef breeding herd (See page 24)	_____	100	99	-
Beef cattle - feeders (See page 24)	_____	100	-	-
Hogs (See page 19)	_____	100	95	99
Sheep - farm flock (See page 25)	_____	100	-	-
Turkeys	_____	100	-	-
Chickens (See page 22 and 23)	_____	100	105	107
(4) Number of animal units	_____	33.1	25.2	28.5
(5) Work units on crops	_____	158	241	133
Work units on productive livestock	_____	203	155	181
Other work units	_____	5	4	1
(6) Number of family workers	_____	1.3	1.4	1.2
Number of hired workers	_____	.1	.1	.2
Total number of workers	_____	1.4	1.5	1.4
(7) Power expense per work unit	\$ _____	\$4.08	\$3.96	\$4.53
Crop machinery expense per work unit	_____	1.82	1.76	2.08
Livestock equip. expense per work unit	_____	.44	.32	.42
Bldgs. & fencing exp. per work unit	_____	1.11	.66	1.76

\*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 61 farms included in this summary are located between the dotted lines across the center of this page.

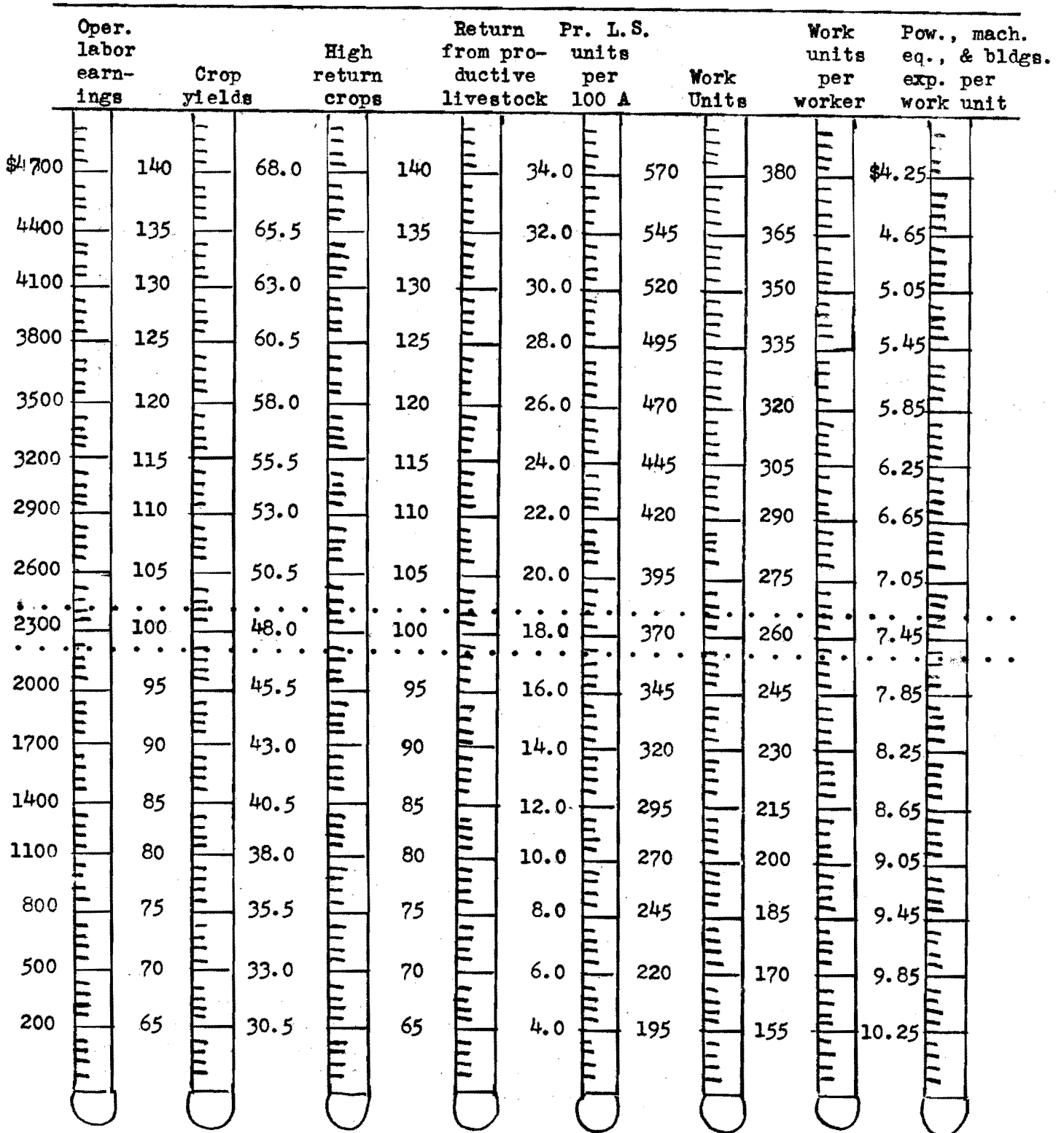


Table 18. Distribution of Acres in Farm and Yield of Crops, 1951

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	Acres in farm		Yield per acre	
		Your farm	Average of 61 farms	Your farm	Average of farms growing each crop
Flax (C)	38	—	20.9	—	9.3 bu.
Barley (D)	26	—	15.3	—	22.2 bu.
Oats (D)	59	—	39.8	—	42.5 bu.
Wheat (D)	16	—	9.8	—	15.4 bu.
Buckwheat (D)	1	—	.3	—	—
Total small grain	61	—	86.1	—	—
Corn grain (A)	61	—	56.5	—	33.4 bu.
Corn silage (B)	27	—	4.0	—	6.3 tons
Sweet corn (B)	3	—	.5	—	2.9 tons
Soybeans for grain (B)	40	—	12.7	—	15.3 bu.
Corn fodder (D)	3	—	.2	—	1.8 tons
Total cultivated crops	61	—	73.9	—	—
Alfalfa hay (A)	50	—	13.6	—	2.2 tons
Other legumes & mixtures (C)	7	—	2.2	—	1.5 tons
Other hay and seed crops (*)	7	—	.8	—	—
Total tillable land in pasture	52	—	16.6	—	—
Alfalfa pasture (A)	16	—	2.8	—	—
Other pasture on tillable land (**)	21	—	4.1	—	—
Total tillable land in pasture	30	—	6.9	—	—
Tillable land not cropped (D)	13	—	4.6	—	—
Total tillable land	61	—	188.1	—	—
Wild hay (non-tillable)	27	—	7.1	—	.7 tons
Non-tillable pasture	37	—	17.2	—	—
Timber (not pastured)	5	—	.2	—	—
Roads and waste	—	—	14.6	—	—
Farmstead	—	—	7.4	—	—
Total acres in farm	—	—	234.6	—	—
Per cent land tillable	—	—	80.2	—	—
Per cent tillable land in high ret. crops	—	—	48.0	—	—

\* Soybean hay was 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.

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 72 to 948 with an average of 183.7. (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, 1951

Items	Your farm	Average of 66 farms	12 most profitable farms	12 least profitable farms
Crop acres per farm	_____	183.7	289.8	150.6
Tractor and horse exp. per crop acre	_____	\$ 4.63	\$ 3.47	\$ 4.81
Crop & gen. mach. exp. per crop acre	_____	3.87	2.87	4.21

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. Forty-six farmers did not maintain horses.

Table 21. Feed Cost for Horses, 1951

Items	Your farm	Average of 15 farms
Feed per horse, lbs.:		
Grain	_____	476
Hay	_____	1577
Fodder and stover	_____	33
Feed cost per horse:		
Grain	_____	\$12.33
Roughage	_____	9.72
Pasture	_____	7.41
Total feed cost	_____	\$29.47
Number of work horses	_____	1.7

#### 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 per cent of the farmers kept hogs and eighty-two per cent raised poultry.

Table 22. Amount of Livestock, 1951

	Your farm	Average of 66 farms	12 most profitable farms	12 least profitable farms
Number of milk cows	_____	5.3	2.9	5.0
Number of other dairy cattle	_____	6.4	3.3	7.6
Number of beef cows	_____	2.1	6.0	1.8
Number of sheep*	_____	10.8	.1	6.0
Number of hens	_____	156	136	149
Number of litters of pigs raised	_____	10	10	8
Pounds of feeder cattle produced	_____	1109	392	1479
Pounds of hogs produced	_____	17325	13673	15378
Number of horses	_____	.5	.5	.4

\*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, 1951

	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.

HOGS

The return over feed cost per 100 pounds of hogs produced varied from \$8.59 for those farmers ranking in the upper fifth in feeding efficiency to a return of \$ -3.20 less than feed cost for those in the lowest one-fifth. Some of the important factors that normally affect return over feed are:

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, 1951

Items	Your farm	Average of 55 farms	11 farms highest in returns above feed	11 farms lowest in returns above feed
Feed per cwt. hogs produced, lbs.:				
Corn	_____	339	305	469
Small grain	_____	150	128	217
Commercial feeds	_____	42	31	33
Total concentrates	_____	531	464	719
Skim milk and buttermilk	_____	84	73	105
Feed cost per cwt. hogs produced:				
Concentrates	\$ _____	\$13.88	\$11.12	\$19.69
Skim milk and buttermilk	_____	.37	.30	.42
Pasture	_____	.20	.06	.31
<b>TOTAL FEED COSTS</b>	_____	14.45	11.48	20.42
Net increase in val. per cwt. hogs prod.	_____	\$18.16	\$20.07	\$17.22
RETURNS ABOVE FEED COST PER CWT. HOGS PROD.	_____	3.71	8.59	-3.20
RETURNS FOR \$100 OF FEED	\$ _____	\$ 135	\$ 179	\$ 85
Price received per cwt. hogs sold	\$ _____	\$19.48	\$19.85	\$19.07
No. of spring litters raised	_____	8.3	6.7	6.8
No. of fall litters raised	_____	2.6	1.9	1.7
Total No. of litters raised	_____	10.9	8.6	8.5
No. of pigs born per litter	_____	8.2	8.2	8.6
No. of pigs weaned per litter	_____	6.3	6.5	6.3
Pounds of hogs produced	_____	19200	15451	13558

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. Forty herds were classified as dairy cattle and 5 herds were classified as dual purpose cattle. The return over feed cost per cow varied from \$-70.32 to \$179.96 among the 45 dairy herds.

Table 24. Factors of Cost and Returns from Dairy and Dual Purpose Cows, 1951

Items	Your farm	Average of 45 herds	15 herds highest in butterfat per cow	15 herds lowest in butterfat per cow
Pounds of butterfat per cow	_____	206	271	137
% butterfat in milk	_____	3.9	4.0	3.6
Price rec. per lb. B.F. sold (cents)	_____	77.1	76.5	75.7
Feeds per cow, lbs:				
Corn	_____	1264	1162	1011
Small grain	_____	678	882	474
Commercial feeds	_____	166	280	72
Legume hay	_____	3568	4504	3455
Other hay	_____	1085	1151	987
Fodder and stover	_____	444	888	-
Total concentrates	_____	2108	2324	1557
Total hay and fodder	_____	5097	6543	4442
Silage	_____	3939	3674	4297
Total digestible nutrients*	_____	4681	5592	4165
T.D.N. per lb. B.F.	_____	22.7	20.6	30.4
% T.D.N. that is protein	_____	13.9	14.5	13.5
Feed cost per cow:				
Concentrates	\$ _____	\$56.99	\$62.79	\$40.68
Roughages	_____	51.51	62.25	47.85
Pasture	_____	7.61	8.93	7.57
TOTAL FEED COSTS	\$ _____	\$116.11	\$133.97	\$96.10
Value of produce per cow:				
Dairy product sales	\$ _____	\$136.99	\$184.25	\$ 88.99
Dairy produce used in house	_____	17.20	18.76	17.00
Milk to livestock	_____	22.05	28.75	19.54
Net increases in value of cows	_____	1.47	-6.15	8.78
TOTAL VALUE PRODUCED	\$ _____	\$177.71	\$225.61	\$134.31
RETURNS ABOVE FEED COST PER COW	\$ _____	\$ 61.60	\$ 91.64	\$ 38.21
RETURNS FOR \$100 OF FEED	\$ _____	\$ 163	\$ 174	\$ 150
Feed cost per lb. B.F. (cents)	_____	56.4	49.4	70.1
Number of cows**	_____	6.9	6.1	6.8

\*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, 1951

Items	Your farm	Average of 14 herds*	14 herds highest in butterfat per cow	15 herds lowest in butterfat per cow
<b>Feeds per head, lbs.:</b>				
Concentrates	_____	757	417	939
Hay and fodder	_____	1668	1694	1890
Silage	_____	1052	791	1037
Skim milk	_____	775	1014	378
Whole milk	_____	201	175	295
<b>Feed cost per head:</b>				
Concentrates	\$ _____	\$20.03	\$10.77	\$24.18
Roughages	_____	16.02	15.12	17.38
Milk	_____	9.41	10.53	10.10
Pasture	_____	2.87	3.49	2.68
<b>TOTAL FEED COSTS PER HEAD</b>	\$ _____	48.33	39.91	54.34
Net inc. in value of other dairy cattle	_____	107.50	95.19	126.58
<b>RETURNS ABOVE FEED COST PER HEAD</b>	_____	59.17	55.28	72.24
<b>RETURNS FOR \$100 OF FEED</b>	_____	\$ 262	\$ 271	\$ 278
Number of head of other dairy cattle	_____	8.8	7.5	9.4

Table 26. Feed Costs and Returns From All Dairy and Dual Purpose Cattle, 1951

Items	Your farm	Average of 45 herds	15 herds highest in butterfat per cow	15 herds lowest in butterfat per cow
<b>Feeds per animal unit, lbs.:</b>				
Concentrates	_____	1941	1756	1793
Hay and fodder	_____	4334	5189	4025
Silage	_____	3418	2963	3546
<b>Feed cost per animal unit:</b>				
Concentrates	\$ _____	\$51.49	\$47.68	\$42.88
Roughages	_____	44.40	49.24	42.94
Pasture	_____	6.95	8.05	6.78
<b>TOTAL FEED COST</b>	-\$ _____	102.84	104.97	92.60
<b>Value of produce per animal unit:</b>				
Dairy products	\$ _____	103.49	136.35	66.81
Net increase in val. of dairy cattle	_____	78.64	70.52	93.05
<b>TOTAL VALUE</b>	\$ _____	182.13	206.87	159.86
<b>RETURNS ABOVE FEED PER ANIMAL UNIT</b>	\$ _____	79.29	101.90	67.26
<b>RETURNS PER \$100 OF FEED</b>	\$ _____	\$ 196	\$ 204	\$ 192
Animal units of dairy cattle	_____	11.4	9.6	11.7

\*One farmer had both a milking herd and a beef herd, used a beef bull, and included all the young stock in the beef herd.



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 28. Feed Costs and Returns from Chickens, 1951

Items	Your farm	Average of 50 farms	12 farms highest in returns above feed	12 farms lowest in returns above feed
Feed per hen, lbs.:				
Grain	_____	106	106	144
Commercial feeds	_____	35	36	34
Total concentrates	_____	141	142	178
Skim milk and buttermilk	_____	6	7	-
<b>TOTAL FEED COST PER HEN</b>	<b>\$ _____</b>	<b>\$4.30</b>	<b>\$4.34</b>	<b>\$5.09</b>
Value of produce per hen:				
Eggs sold and used in house	\$ _____	\$5.29	\$6.58	\$5.04
Net increase in value of chickens	_____	.42	.91	-.03
<b>TOTAL VALUE PRODUCED</b>	<b>\$ _____</b>	<b>5.71</b>	<b>7.50</b>	<b>5.01</b>
<b>RETURNS ABOVE FEED COST PER HEN</b>	<b>\$ _____</b>	<b>1.41</b>	<b>3.13</b>	<b>.08</b>
<b>RETURNS FOR \$100 OF FEED</b>	<b>\$ _____</b>	<b>\$ 138</b>	<b>\$ 179</b>	<b>\$ 99</b>
Price rec'd. per doz. eggs sold (cents)	_____	39.4	41.2	39.5
Eggs laid per hen	_____	162	193	153
Ave. no. of hens on farm during the yr.	_____	189	235	163
% of hens that are pullets	_____	76	88	73
% of death loss of hens	_____	15	11	20
Number of chicks bought:				
Straight run	_____	87	54	91
Pullets	_____	181	312	157
Cockerels	_____	25	38	8
<b>Pounds of poultry produced</b>	<b>_____</b>	<b>934</b>	<b>1482</b>	<b>654</b>

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, 1951

Items	Your farm	Average of 10 flocks
Feed per 100 chicks raised, lbs.:		
Grain		1846
Commercial feeds		828
Total concentrates		2674
Skim milk		94
Total feed cost per 100 chicks raised		\$89.74
Net increase in val. per 100 chicks		64.43
Return over feed cost per 100 chicks		-25.31
Return for \$100 of feed		\$ 72
Number of chicks bot:		
Pullets		297
Straight run		69
Cockerels		23
Price paid per 100 chicks bot:		
Pullets		\$35.09
Straight run		23.52
Cockerels		-
Per cent death loss		13.6
Number chicks raised		340
Price rec'd per pound sold (cts.)		22.3
Pounds of poultry produced		1384

Table 30. Feed Cost and Returns from Laying Hens, 1951

Items	Your farm	Average of 15 flocks
Feed per hen, lbs.:		
Grain		87
Commercial feeds		23
Total concentrates		110
Skim milk		6
Total feed cost per hen		\$ 3.25
Value of produce per hen:		
Eggs sold and used in home		\$ 5.68
Less depreciation and death loss		-.49
Total value produced		5.19
Return above feed cost per hen		\$ 1.94
Return for \$100 of feed		\$ 160
Eggs laid per hen		169
Price rec'd per doz. eggs sold (cts.)		40.6
Ave. no. hens on farm during year		209
No. of hens on hand beginning of year		256
% death loss		17
% of hens that are pullets		72

Table 31. Feed Costs and Returns from Beef Breeding Herds, 1951

Items	Your farm	Average of 11 farms
Feed per animal unit, lbs.:		
Concentrates	_____	1933
Legume hay	_____	2812
Other hay	_____	1816
Fodder and stover	_____	-
Silage	_____	4033
Feed cost per animal unit:		
Concentrates	\$ _____	\$ 45.99
Roughages	_____	45.75
Milk*	_____	2.96
Pasture	_____	8.62
Total feed cost	_____	103.32
Value of produce per animal unit:		
Dairy products	\$ _____	\$ 3.49
Net increase in value of beef cattle	_____	202.07
Total value produced	_____	205.56
Return over feed cost per animal unit	\$ _____	102.24
Return for \$100 of feed	\$ _____	\$ 203
Number of cows and herd bulls	_____	11.3
Number of animal units	_____	13.0
Pounds of beef produced	_____	6449

\* From the dairy herd

Table 32. Feed Costs and Returns From Feeder Cattle, 1951

Items	Your farm	Average of 8 farms
Feeds per cwt. beef produced, lbs.:		
Corn	_____	600
Small grain	_____	13
Commercial feeds	_____	46
Legume hay	_____	432
Other hay	_____	-
Fodder and stover	_____	22
Total concentrates	_____	659
Total hay	_____	454
Silage	_____	425
Feed cost per cwt. beef produced:		
Concentrates	\$ _____	\$ 16.63
Roughages	_____	5.54
Pasture	_____	.79
TOTAL FEED COSTS	\$ _____	22.96
Net increase in value of feeders	\$ _____	34.56
RETURNS ABOVE FEED COST PER CWT.		
BEEF PRODUCED	\$ _____	11.60
RETURNS FOR \$100 OF FEED	\$ _____	\$ 175
Price rec'd per cwt. beef sold	\$ _____	\$ 32.62
Price paid per cwt. beef bought	\$ _____	32.77
No. of animal units	_____	17.0
Pounds of beef produced	_____	8331

Table 33. Feed Costs and Returns from a Farm Flock of Sheep, 1951

Items	Your farm	Average of 11 farms
Feed per head,* lbs.:		
Concentrates	_____	167
Legume hay	_____	403
Other hay	_____	167
Fodder and stover	_____	-
Silage	_____	147
Feed cost per head:		
Concentrates	\$ _____	\$ 4.10
Roughages	_____	4.81
Pasture	_____	1.11
TOTAL FEED COSTS	_____	10.02
Value of produce per head:		
Wool	\$ _____	\$ 5.63
Net increase in value of sheep	_____	15.41
TOTAL VALUE PRODUCED	_____	21.04
RETURNS ABOVE FEED COST PER HEAD	_____	\$11.02
RETURNS FOR \$100 OF FEED	\$ _____	\$ 291
Price per cwt. of lambs sold	\$ _____	\$29.73
Price per lb. wool sold (cents)	_____	89.5
Pounds of wool per sheep sheared	_____	8.2
Number of ewes kept for lambing	_____	32
% lamb crop*	_____	118
% death loss**	_____	8.2
Pounds of sheep produced	_____	2737
No. of head of sheep*	_____	56.9

\* 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	1951
Number of farms	62	72	88	55	61
Dairy and dual purpose cows	\$438	\$685	\$702	\$828	\$1118
Other dairy & dual purpose cattle	190	412	415	475	590
Beef cattle (inc. feeders)	80	464	508	780	1386
Hogs	652	840	784	997	1174
Sheep	104	120	56	161	268
Poultry	122	182	178	181	183
Productive livestock (total)	1586	2703	2643	3422	4719
Horses	40	48	51	31	20
Crop, seed, & feed	1452	2402	2251	2543	2586
Power mach. (farm share)	1223	1594	1728	2139	2412
Crop and general mach. (farm share)	939	1477	1639	2159	2689
Livestock equipment & supplies	156	279	270	349	499
Mach. & equipment (total)	2318	3350	3637	4647	5600
Miscellaneous	1	1	-	-	3
Buildings, fences, etc.	4260	5240	5483	6174	7940
Land	8515	8900	10177	10462	17442
Total farm capital	18172	22644	24242	27279	38310

Table 35. Summary of Farm Earnings by Years

	1947	1948	1949	1950	1951
Monthly charge for unpaid family labor	\$ 121	\$ 129	\$ 125	\$ 128	\$ 128
Monthly charge for board to hired labor	35	41	35	39	41
<b>FARM RECEIPTS</b>					
Dairy and dual-purpose cows	\$ 88	\$ 304	\$ 173	\$ 279	\$ 292
Dairy products	434	800	555	619	759
Other dairy & dual purpose cattle	131	317	249	374	277
Beef cattle	117	459	467	666	1049
Hogs	1601	2101	2097	2606	3424
Sheep and wool	41	127	65	119	212
Poultry	148	181	156	211	727
Eggs	441	783	785	621	817
Horses	6	8	7	7	9
Corn	1033	910	1210	983	1118
Small grain	1776	1954	1477	1509	1753
Other crops	285	367	284	284	614
Machinery & equip. sold	139	297	265	412	512
Agricultural adjustment payments	16	41	14	40	47
Income from work off the farm	64	147	134	158	123
Miscellaneous	15	26	18	39	40
(1) Total farm sales	6335	8822	7956	8927	11773
(2) Increase in farm capital	1913	1931	886	2306	1629
(3) Family living from the farm	348	437	391	446	510
(4) Total farm receipts (1)+(2)+(3)	8596	11190	9233	11679	13912
<b>FARM EXPENSES</b>					
Dairy and dual purpose cows bought	\$ 112	\$ 212	\$ 140	\$ 210	\$ 194
Other dairy and dual-pur. cattle bought	92	122	76	210	148
Beef cattle bought	35	426	176	408	775
Hogs bought	187	170	223	331	471
Sheep bought	82	36	26	31	134
Poultry bought	71	93	97	104	257
Horses bought	8	15	6	1	2
Misc. livestock expense	59	94	96	147	174
Misc. crop expenses	420	546	436	495	584
Feed bought	635	834	741	1096	1669
Custom work hired	206	312	291	296	321
Mech. power mach. (farm share) (new)	535	664	696	846	819
Mech. power mach. (farm share) (upkeep)	218	235	215	205	212
Mech. power (f. share) (gas, oil, etc.)	482	653	664	755	776
Crop and general mach. (new)	441	906	729	931	955
Crop and general mach. (upkeep)	116	157	137	137	154
Livestock equipment (new)	79	93	112	145	152
Livestock equipment (upkeep)	22	41	36	44	78
Buildings and fencing (new)	231	304	418	385	514
Buildings and fencing (upkeep)	85	150	124	130	110
Hired labor	110	229	178	184	191
Taxes	235	282	299	359	412
General farm and insurance	37	65	61	83	83
(5) Total farm purchases	4498	6639	5977	7533	9185
(6) Decrease in farm capital	-	-	-	-	-
(7) Interest on farm capital	909	1132	1212	1364	1915
(8) Unpaid family labor	399	539	329	319	437
(9) Board furnished hired labor	31	93	56	58	45
(10) Total farm exp. (sum of (5) to (8))	5837	8403	7574	9274	11582
(11) Oper. labor earnings (4) - (10)	2759	2787	1659	2405	2330

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

	1947	1948	1949	1950	1951
<b>ACRES PER FARM</b>					
Flax	16.2	16.4	24.3	18.6	20.9
Barley	11.2	15.1	9.4	15.0	15.3
Oats	39.3	43.3	47.1	43.6	39.8
Wheat	9.6	10.3	7.3	7.7	9.8
Other small grains and peas	4.0	5.1	2.1	2.8	.3
Total small grains and peas	80.3	90.2	90.2	87.7	86.1
Corn for grain	47.4	47.8	55.9	53.4	56.5
Soybeans for grain	7.5	7.2	7.3	10.0	12.7
Other cultivated crops	3.1	3.9	3.9	4.4	4.7
Total cultivated crops	58.0	58.9	67.1	67.8	73.9
Alfalfa hay	4.0	6.5	6.0	11.0	13.6
Other hay and seed crops	2.1	4.0	2.3	3.1	3.0
Total tillable land in hay	6.1	10.5	8.3	14.1	16.6
Total tillable land in pasture	3.9	5.6	7.3	6.2	6.9
Tillable land not cropped	5.9	.8	1.4	3.6	4.6
Total tillable land	154.2	166.0	174.3	179.4	188.1
Wild hay (non-tillable)	6.5	6.8	8.7	3.8	7.1
Non-tillable pasture	15.6	21.0	18.3	17.0	17.2
Timber, roads, waste, and farmstead	28.1	22.7	22.1	23.2	22.2
Total land in farm	204.4	216.5	223.4	223.4	234.6
<b>CROP YIELDS PER ACRE</b>					
Flax, bu.	10.1	12.5	9.6	9.8	9.3
Barley, bu.	19.9	25.1	20.3	28.1	22.2
Oats, bu.	26.0	36.0	31.3	34.8	42.5
Wheat, bu.	14.4	14.5	13.4	12.1	15.4
Corn for grain, bu.	27.2	46.2	38.0	35.8	33.4
Corn for silage, tons	5.6	8.2	7.8	7.9	6.3
Soybeans, bu.	13.0	17.5	13.9	11.7	15.3
Alfalfa hay, tons	1.9	2.3	2.0	1.8	2.2

Table 37. Summary of Miscellaneous Items by Years

	1947	1948	1949	1950	1951
<b>MEASURES OF FARM ORGANIZATION AND MANAGEMENT EFFICIENCY</b>					
% high return crops	45.5	41.1	44.1	45.3	48.0
A.U. Livestock per 100 A.*	6.7	9.8	9.6	11.2	17.9
No. of work units	231	314	315	332	366
Work units per worker	165	209	225	255	261
Expenses per work unit	\$7.04	\$7.09	\$7.11	\$7.31	\$7.45
<b>AMOUNT OF LIVESTOCK</b>					
No. of milk cows	3.2	4.9	4.5	4.7	5.3
No. of other dairy cattle	3.3	6.4	5.8	5.9	6.4
No. of head of sheep	6.7	7.6	4.4	9.4	10.8
No. of hens	102	157	160	154	156
Lbs. hogs produced	7093	9865	11727	15107	17325
No. of litters of hogs raised	5.2	6.4	8.4	12.2	10.0
No. of horses	.9	1.2	.8	.5	.5
<b>PRODUCTION PER UNIT OF LIVESTOCK</b>					
Lbs. B.F. per dairy cow	206	212	216	223	206
Lbs. B.F. per dual purpose cow	205	157	171	168	**
Pigs weaned per litter	6.1	6.2	6.2	6.0	6.3
No. eggs laid per hen	146	153	162	161	162
Lbs. wool per sheep sheared	9.5	7.6	8.5	8.9	8.2
% lamb crop	129	97	111	115	118
<b>PRICE RECEIVED PER</b>					
Lb. B.F. sold (cts.)	80.6	87.8	66.3	66.5	77.1
Cwt. hogs sold	\$24.22	\$22.88	\$17.23	\$17.90	\$19.48
Cwt. beef sold	22.26	28.64	22.06	25.80	32.62
Cwt. lambs sold	21.85	22.87	21.49	29.18	29.73
Lb. wool sold (cts.)	35.4	42.8	39.3	47.9	89.5
Doz. eggs sold (cts.)	37.8	40.1	38.6	30.6	39.4
<b>RETURN ABOVE FEED COST PER</b>					
Dairy cow	\$62.51	\$104.88	\$56.74	\$56.79	\$61.60
Dual purpose cow	33.70	69.91	48.37	37.10	**
Animal unit in beef breeding herd	—	78.55	22.37	43.18	102.24
Cwt. feeder cattle produced	5.12	8.24	9.99	8.71	11.60
Cwt. hogs produced	6.97	6.23	4.35	5.75	3.71
Head of sheep	7.76	7.16	7.01	11.48	11.02
Hen	.66	1.72	2.25	.65	1.41
<b>FEED COST PER</b>					
Dairy cow	\$117.53	\$118.02	\$110.78	\$114.69	\$116.11
Dual purpose cow	140.06	108.59	82.71	102.47	**
An. unit in beef breeding herd	—	75.93	58.19	81.54	103.32
Cwt. feeder cattle produced	18.23	30.03	15.48	20.29	22.96
Cwt. hogs produced	17.19	14.76	10.71	12.30	14.45
Head of sheep	8.15	5.73	4.45	5.74	10.02
Hen	5.18	4.00	3.67	3.98	4.30
Horse	43.67	33.12	32.64	39.74	29.47

\* The animal unit equivalents were changed in 1951

\*\* Combined with dairy cows