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1958 REPORT

VOCATIONAL AGRICULTURE

FARM MANAGEMENT SERVICE

WEST CENTRAL MINNESOTA

UNIVERSITY OF MINNESOTA
Institute of Agriculture
and

Vocational Division

MINNESOTA DEPARTMENT OF EDUCATION

Cooperating

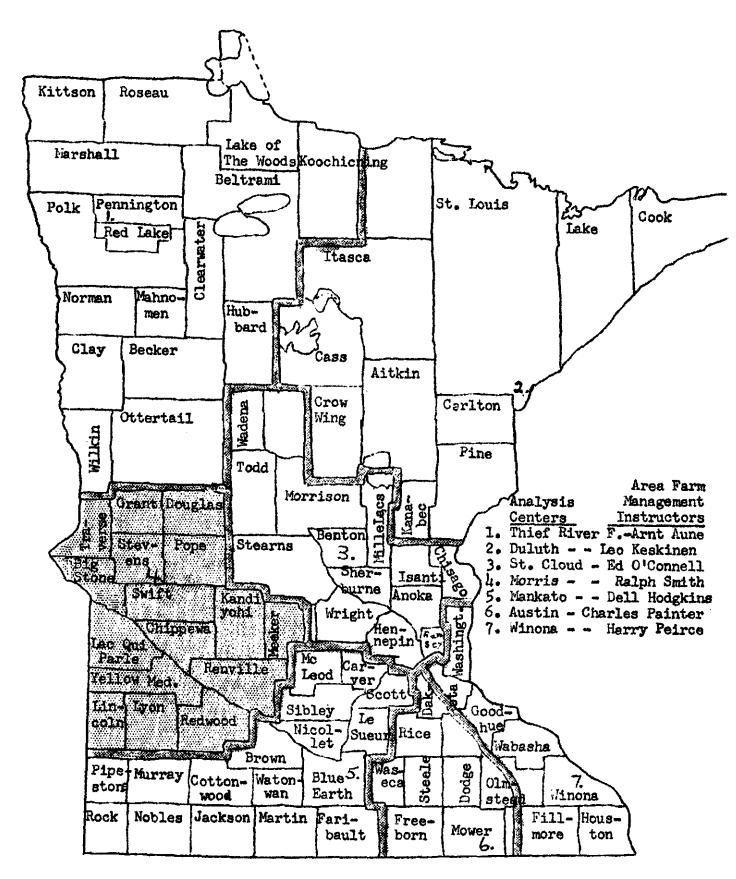
Report No. 244

Department of Agricultural Economics

Institute of Agriculture

St. Paul 1, Minnesota

April, 1959



* Shaded Area Served By The Morris Analysis Center

Each farmer pays an annual fee which covers a portion of the cost. The balance of the costs were defrayed by the University of Minnesota.

This report deals with farmers enrolled in 10 schools in West Central Minnesota. The following tabulation shows by schools the number of 1958 farm records submitted:

SCHOOL		No. c	f Rec	ords	INSTRUCTOR
Alberta Alexandria Canby Cyrus Madison Sacred Heart Olivia			1 13 5 1 3 1 5 1		. Frank T. Saunders . Howard Johnson . Bernard Sonstegard . Dwaine Englund . Donald Walker . Dwight Quam . Ralph Smith . Earl Northouse . Cdell Barduson . Trancis Hley

The records kept included farm inventories, cash receipts and expense, feed consumed by the various classes of livestock, family living secured from the farm, household and personal expenses and receipts and the operator's liabilities and assets other than farm capital. All types of tenure arrangements are represented ranging from full owners to partnerships in which the operator furnishes little or no capital.

FARM INVENTORIES

The capital investment per farm varied from \$13,247 to 3115,649. The average investment for all farms included this report and for the one-fourth high and the one-fourth low in operator's labor earnings is shown in Table 1.

Landlords or partners supplied some capital in 20 out of the 32 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

Cperator's 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 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 statments 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.

1958 REPORT OF THE FARE MANAGEMENT SERVICE FOR VOCATIONAL AGRICULTURE IN WEST CENTRAL MINNESOTA

Ralph Smith and T. R. Nodland

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INTRODUCTION

The Departments of Agricultural Economics and Agricultural Education, the West Central School and Station and the Agricultural Extension Service of the University of Minnesota are cooperating with the Vocational Division, Minnesota Department of Education in maintaining a farm management service. The service was initiated during 1952 and is available to farmers who are enrolled in adult or young farmer classes in 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. The enrollment is on a voluntary basis insofar as the number of schools participating and the number of farmers enrolled in the service.

The analysis of the records and the preparation of the reports for West Central Minnesota are handled by Ralph Smith of the West Central School and Experiment Station at Morris. The project is under the general direction of T. R. Nodland of the University of Minnesota Department of Agricultural Economics. The Department of Agricultural Education was represented by M. J. Peterson and the Agricultural Extension Service by E. Hartmans. The State Department of Education was represented by G. R. Cochran, State Supervisor of Agricultural Education.

Table 1. Summary of Farm Inventories, 1958.

It e ms J	Your Farm an. 1 Dec. 31	Average o	f 32 Farms Dec. 31
Size of farm (acres)	•	261	
Size of business (work units)**		358	
Dairy and dual purpose cows	·	\$1843	8 206 4
Other dairy & dual purpose		630	897
Beef cattle (incl. feeders)		4207	551.9
Hogs Sheep (incl. feeders)		807 30	999 92
Poultry (incl. turkeys)		210	241
		7727	9812
Crop, seed and feed		3799	կ79 6
Power mach. (farm share)		. 28lili 35lio	2976 3657
Crop and general machinery Livestock equipment		840	875
Machinery & equipment (total)	and and an article and an article and article and article and article and article art	7224	7508
Miscellaneous			***
Land		20586	20586
Buildings, fences, etc.		8720	<u>8693</u>
		\ a10	
Total farm capital		48056	5 1395
	8 most profitable far	ms 8 least	profitable
Total farm capital Items	8 most profitable far Jan. 1 . Dec. 31		
Items Size of farms (acres)	Jan. 1 . Dec. 31	ms 8 least Jan. 1	profitable
Items Size of farms (acres) Size of business (work units)**	Jan. 1 . Dec. 31 323 403	ms 8 least Jan. 1 262 287	profitable Dec. 31
Items Size of farms (acres) Size of business (work units)** Dairy and dual purpose cows	Jan. 1 . Dec. 31 323 403 \$1525 \$1381	ms 8 least Jan. 1 262 287 31104	profitable Dec. 31
Items Size of farms (acres) Size of business (work units)** Dairy and dual purpose cows Other dairy & dual purpose	Jan. 1 . Dec. 31 323 403 \$1525 \$1381 401 652	ms 8 least Jan. 1 262 287 31104 456	profitable Dec. 31 S1521 763
Items Size of farms (acres) Size of business (work units)** Dairy and dual purpose cows Other dairy & dual purpose Beef cattle (incl. feeders)	Jan. 1 . Dec. 31 323 403 \$1525 \$1381 401 652 7552 7676	ms 8 least Jan. 1 262 287 1104 456 5392	profitable Dec. 31 51521 763 5688
Items Size of farms (acres) Size of business (work units)** Dairy and dual purpose cows Other dairy & dual purpose Beef cattle (incl. feeders) Hogs	Jan. 1 . Dec. 31 323 403 \$1525 \$1381 401 652 7552 7676 699 2308	ms 8 least Jan. 1 262 287 1104 456 5392 312	profitable Dec. 31 51521 763 5688 74
Items Size of farms (acres) Size of business (work units)** Dairy and dual purpose cows Other dairy & dual purpose Beef cattle (incl. feeders) Hogs Sheep (incl. feeders)	Jan. 1 . Bec. 31 323 403 \$1525 \$1381 401 652 7552 7676 699 2308 52 73 444 26	ms 8 least Jan. 1 262 287 3104 456 5392 312 69 164	profitable Dec. 31 51521 763 5688
Items Size of farms (acres) Size of business (work units)** Dairy and dual purpose cows Other dairy & dual purpose Beef cattle (incl. feeders) Hogs Sheep (incl. feeders) Poultry (incl. turkeys) Productive livestock (total)	Jan. 1 . Dec. 31 323 403 \$1525	ms 8 least Jan. 1 262 287 1104 456 5392 312 69	profitable Dec. 31 51521 763 5688 74 101
Items Size of farms (acres) Size of business (work units)** Dairy and dual purpose cows Other dairy & dual purpose Beef cattle (incl. feeders) Hogs Sheep (incl. feeders) Poultry (incl. turkeys) Productive livestock (total) Horses	Jan. 1 . Dec. 31 323 403 \$1525	ms 8 least Jan. 1 262 287 1104 456 5392 312 69 164 7497	Profitable Dec. 31 51521 763 5688 74 101 284 8431
Size of farms (acres) Size of business (work units)** Dairy and dual purpose cows Other dairy & dual purpose Beef cattle (incl. feeders) Hogs Sheep (incl. feeders) Poultry (incl. turkeys) Productive livestock (total) Horses Crop, seed, and feed	Jan. 1 . Dec. 31 323 403 \$1525	ms 8 least Jan. 1 262 287 3104 456 5392 312 69 164 7497 3679	Profitable Dec. 31 31521 763 5688 74 101 284 8431
Size of farms (acres) Size of business (work units)** Dairy and dual purpose cows Other dairy & dual purpose Beef cattle (incl. feeders) Hogs Sheep (incl. feeders) Poultry (incl. turkeys) Productive livestock (total) Horses Crop, seed, and feed Power mach. (farm share)	Jan. 1 . Dec. 31 323 403 \$1525	ms 8 least Jan. 1 262 287 3104 456 5392 312 69 164 7497 3679 2926	profitable Dec. 31 51521 763 5688 74 101 284 8431 3901 2933
Items Size of farms (acres) Size of business (work units)** Dairy and dual purpose cows Other dairy & dual purpose Beef cattle (incl. feeders) Hogs Sheep (incl. feeders) Poultry (incl. turkeys) Productive livestock (total) Horses Crop, seed, and feed Power mach. (farm share) Crop & gen. machinery	Jan. 1 . Dec. 31 323 403 \$1525 \$1381 401 652 7552 7676 699 2308 52 73 444 26 10273 12116 4518 6466 3389 3828 3252 3542	ms 8 least Jan. 1 262 287 3104 456 5392 312 69 164 7497 3679	Profitable Dec. 31 31521 763 5688 74 101 284 8431
Size of farms (acres) Size of business (work units)** Dairy and dual purpose cows Other dairy & dual purpose Beef cattle (incl. feeders) Hogs Sheep (incl. feeders) Poultry (incl. turkeys) Productive livestock (total) Horses	Jan. 1 . Bec. 31 323 403 \$1525	ms 8 least Jan. 1 262 287 3104 456 5392 312 69 164 7497 3679 2926 4840 429 8195	profitable Dec. 31 51521 763 5688 74 101 284 8431 3901 2933 4927 501 8361
Size of farms (acres) Size of business (work units)** Dairy and dual purpose cows Other dairy & dual purpose Beef cattle (incl. feeders) Hogs Sheep (incl. feeders) Poultry (incl. turkeys) Productive livestock (total) Horses Crop, seed, and feed Power mach. (farm share) Crop & gen. machinery Livestock equipment Machinery & equipment (total) Land	Jan. 1 . Bec. 31 323 403 \$1525	ms 8 least Jan. 1 262 287 3104 456 5392 312 69 164 7497 3679 2926 4840 429 8195 13251	Profitable Dec. 31 31521 763 5688 74 101 284 8431 3901 2933 4927 501 8361 13251
Items Size of farms (acres) Size of business (work units)** Dairy and dual purpose cows Other dairy & dual purpose Beef cattle (incl. feeders) Hogs Sheep (incl. feeders) Poultry (incl. turkeys) Productive livestock (total) Horses Crop, seed, and feed Power mach. (farm share) Crop & gen. machinery Livestock equipment Machinery & equipment (total)	Jan. 1 . Bec. 31 323 403 \$1525	ms 8 least Jan. 1 262 287 3104 456 5392 312 69 164 7497 3679 2926 4840 429 8195	profitable Dec. 31 51521 763 5688 74 101 284 8431 3901 2933 4927 501 8361

^{*} For the purpose of comparison, all the data shown in this report with the exception of tables 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 11 for an explanation of "work units."

Table 2. Summary of Farm Earnings (Cash Statement), 1958

Items	Your farm	Average of 32 farms	8 most profitable farms	8 least profitable farms
FARM RECEIPTS			Z (C Z 1/12)	1971110
Dairy and dual-purpose cattle		\$ 786	\$ 766	\$ 321
Dairy products		2737	2415	1420
Beef cattle (incl. feeders)		7140	12819	8915
Hogs		2736	4190	1126
Sheep and wool (incl. feeders)		69	92	
Horses			/ -	16
Poultry		120	34	132
Eggs		841	128	794
Com		1480	2770	756
Small grain		1206	3006	330
Other crops		1666	2072	2439
Mach. & equip. sold & gas tax refun	<u> </u>	230	226	108
Income from work off the farm	<u> </u>	406	201	60 6
Miscellaneous	` <u>-</u>	208	185	145
(1) Total farm sales	 	19625	2 8904	17108
(2) Increase in farm capital		3339	539l ₄	
(3) Family living from the farm		237	210	1049 200
(4) Total farm receipts $(1)/(2)/(3)$	<u> </u>	23201		
(4) 10 dai 1aim 160e1pda (1)F(2)F(3)	· 	27201	34508	18357
FARM EXPENSES				
Dairy and dual-purpose cattle bough	t	288	27	547
Beef cattle bought (incl. feeders)	***************************************	4475	6446	4721
Hogs bought		589	1293	153
Sheep bought (incl. feeders)		93	54	
Horses bought	•			
Poultry bought		101	12	97
Misc. livestock expense		339	449	214
Feed bought		2440	3089	2427
Fertilizers		382	399	389
Other crop expenses		552	771	398
Custom work hired		575	506	685
Gas, cil & grease bought (f. share)		970	1264	857
Rep. of mech. power (farm share)		441	532	366
Repair and upkeep of real estate		224	201	362
Rep. & upkeep of crop & gen. mach.		380	505	357
Rep. & upkeep of livestock equip.		87	84	90
Wages of hired labor		499	794	233
Electricity expense (farm share)		171	196	103
Real estate & pers. prop. taxes		666	717	699
General farm expense		211	231	195
(5) Total cash operating expense		13483	17570	12893
(6) Cap. purchases-mech.pcw.(f.share	e)	770	1271	599
(7) " -crops & gen.mach		878	· 775	1197
(8) " -livestock equip.		210	279	216
(9) " -bldgs.& fencing		605	1353	630
(10) Total farm purchases (5) to (9))	15946	21248	15535
(11) Decrease in farm capital			21240	, ユンソンフ
(12) Interest in farm capital		2486	3230	2162
(13) Unpaid family labor	**********	288	186	
(14) Board furnished hired labor		101	94 100	379 1163
(15) Total farm expenses (10)to(14)		18821	<u>24758</u>	153 18220.
(16) Labor earnings (4) - (15)		4380		18229
(20) papor carnings (4) = (13)		4500	9750	128

Table 3. Summary of Farm Earnings (Enterprise Statement) 1958*

[tems	Your :	Average of 32 farms	8 most profitable farms	8 least profitable farms
RETURNS AND NET INCREASES				
Dairy and dual-purpose cows		52940	52555	1610
Other dairy & dual-purpose cattle		926	766	455
Beef breeding herd		626	1476	134
		3404	5104	4382
Feeder cattle		2380	4570	766
Hogs		38		48
Sheep - farm flock & feeders			59	980
Chickens		918	144	
All productive livestock		11232	14674	8375
Value of feed fed to livestock		6009	7519	5249
Return over feed from livestock		5223	7155	3126
Crops, seed, and feed		7957	13 048	5745
Income from labor off the farm		232	80	247
Agricultural conservation pay.		8	7	9 .
Miscellaneous	 ,	200	178	136
(1) Total returns & net increases		13620	20468	9263
Horses Truck Auto (farm share) Tractor Elec. & gas engine exp. (farm) Hired power Total power Crop and general machinery Livestock equipment Buildings, fencing, tiling Misc. productive livestock exp. Labor Real estate taxes Personal property tax Insurance General farm		296 430 1090 172 253 2241 1139 230 855 339 1073 533 133	\$ 469 571 1321 199 209 2769 1068 210 828 449 1216 553 164 73	\$ 246 368 889 103 293 1899 1469 235 1264 214 998 578 121 98
Interest on farm capital		2486	3230	2162
(2) Total expenses & net dec.		9240	10718	9135
		4380		

^{*} 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 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 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 income.

The value of the family living as shown in Table 4 amounts to 1.0 percent 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.

Table 4. Family Living from the Farm, 1958

Items	Your Farm	Average of 32 farms	Your Farm	Average of 32 farms
Adult equiv family - others		2.8 .2		
Mnole milk Cream Beef Hogs Lamb and mutton Poultry Eggs Potatoes Vegetables & fruit Farm fuel Total		461 qts. 24 pts. 503 lbs. 216 lbs. 81 lbs. 51		110 39 15 13 11 237

HOUSEHOLD AND PERSONAL EXPENSES AND RECTIFTS

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 3239 per month for family living in addition to the food, fuel and housing furnished by the farm.

Table 5. Household and Personal Expensesfor

Those Farms Which Kept Comple	Your Farm	Average of 18 farms	9 most profitable farms	9 least profitable farms
Number of persons - family		4.0	3•3	3.7
Number of adult equiv family - other*		2.8 .2	2.4 .1	2.6 .2
Food and meals bought Operating and supplies Furnishings and equipment Clothing and clothing materials Personal care, personal spending Education, recreation & develop. Gifts and special events Medical care and health ins. Church, welfare Personal share of auto expense Operator's share of upkeep dwell. Household share of ele. exp. Total cash living expense H.Y. & pers. share of new auto New dwelling Taxes and other deductions Life insurance Other savings and investments Total household & personal cash expense Total family living from the farm Total cash expenses & prequis.		5 744 224 217 213 57 264 164 253 104 130 30 82 2482 72 139 158 20 2871 219 3090	\$ 803 275 184 249 72 226 129 267 129 141 56 85 2616 78 253 192 22 3161 215 3376	\$ 686 173 250 177 144 303 199 239 78 120 4 80 2353 63 26 124 17 2583 222 2805
Receipts: Return to capital and fam. laboration laborates and fam. laborates are laborated and fam. laborated and)r	4692 725 7	6843 404 7	2541 10 47 7

^{*} 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, part owners and 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, 1958 (Operator's Share)

Record of all Assets and L	labilities,	1958 (Oper Farm	ator's Share	wners
Items	Jan. l	Dec. 31	Jan. 1	Dec. 31
Total acres in farm			254	
Owned			254	
Rented				
Total farm capital			943417	S47570
Stocks and bonds			340	335
Life insurance	**************************************		865	862
Accounts receivable				***
Outside real estate	فاستوقانها والاربيت		***	
Other outside investments	-		702	716
Total outside investments	-		1907	1913
Dwelling	**************************************		6176	5929
Cash on hand and in bank			490	794
Other household & personal assets	· · · · · · · · · · · · · · · · · · ·		2245	2556
Total cash, h.h. & personal assets			10818	11192
TOTAL ASSETS			54235	58762
Federal Land Bank Mortgage			5057	4952
Other mortgage on land operated			7750	7500
Mortgages on other real estate				time and
FHA chattel mortgages			90	135
Production Credit Association	ا النظام النظامة * -		1030	2379
Crop loans	*	*		
Other chattel mortgages			1196	3720
Notes payable			2131	2678
Accounts payable			190	210
TOTAL LIABILITIES			17444	21574
Farmer's net worth		,	36791	37188
Gain in net worth				<i>f</i> 397
9				•
		owners*	-	ters**
Items	Jan. l	Dec. 31	Jan. l	Dec. 31
Total acres in farm	229		290	
nwned	149			
Rented	80		290	****
Total farm capital	540576	\$ 4555 5	\$24899	\$26551
Stocks and bonds	456	479	205	313
Life insurance	1284	1473	1689	1825
Accounts receivable			788	147
Other outside investments	509	317	4	5
Total outside investments	2249	2269	2686	2290
Dwelling	2995	2834		
Cash on hand and in bank	688	542	713	999
Other h.h. and personal assets	2737	2849	2282	2692
Total cash, h.h. and pers. assets	8669	8494	5681	5981
TOTAL ASSETS	49542	- 24049	30580	32532
Federal Land Bank Mortgage			•	
Other mortgages, on land operated	15855	12861		
Mortgages on other real estate				
FHA chattel mortgage				
Production Credit Association	2,48	495	-	
Crop loans	, , 		u+ 110	
Other chattel mortgages	5977	7645	4003	3046
31 - 1 3-7	253 9	2327	5251	6662
Notes payable				ماسا
Notes payable Accounts payable	2069	1511	885	542
		1511 24839	88 <u>5</u> 10139	542 10250
Accounts payable	2069			

Table 7. Summary of Farm Earnings by Tenure, 1958 (Operator's Share)

Table (Dummary O. Farm Barnings	Your	10	8 part	5
Items	Farm	owners	owners	renters
FARM RECRIPTS	I OT III	OMIGIB	Owner B	Postberg
Dairy and dual-purpose cows		s 460	5 872	
Dairy products		1731	3093	
Beef cattle (incl. feeders)		6371	10383	11850
Hogs		1374	3693	6059
Shoep and wool (incl. feeders)		135	JU/ J	174
Poultry (incl. turkeys)	***************************************	124	248	37
Eggs		584	1911	411
Horses		JV4		
Corn		1274	1534	50
Small grain		594	867	465
Other crops		2428	668	1240
Mach. & equip. sold, gas tax refund		123	489	124
Income from work off the farm		248	104	1670
Miscellaneous		166	355	82
(1) Total farm sales		15612	$\frac{24217}{}$	22162
(2) Increase in farm capital		41.53	4979.	1652
(3) Family living from the farm		241	249	215
(4) Total farm receipts $(1)/(2)/(3)$		20006	29445	24029
FARM EXPENSES			•	•
Dairy and dual-purpose cows bought		523	470	
Beef cattle bought (incl. feeders)		5707	6182	4231
Hogs bought		189	1289	3769
Sheep bought (incl. feeders)	فبسبسه النباكس	98		8€
Horses bought	·	2	AND THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS	-
Poultry bought (incl. turkeys)		96	210	58
Miscellaneous livestock expense		281	484	33h
Feed bought		2004	3754	3349
Fertilizers bought	·	378	466	418
Other crop expense		416	522	678
Custom work hired		629	677	457
Gas, oil & grease bought (farm share)		884	1101	911
Rep. of mech. power (farm share)		398	486	540
Repair & upkeep of real estate		305	236	95
Rep. & upkcep of crop & gen. mach.		365	36 5	458
Rep. & upkeep of livestock equip.		131	. 93	30
Wages of hired labor		308	496	602
Electricity exp. (farm share)		126	189	142
Real estate & pers. property tax		702	1,22	138
Cash rent			459	707
General farm expense		191	192	205
Interest paid		500	776	603
(5) Total cash operating expense		111531	18869	17811
(6) Capital purchases - mech. pow.(fm)		357	1369	1315
(7) Capital purchases - crop & gen.maci		999	876	743
(8) Capital purchases - livestock equip	D•	209	339	229
(9) Capital purchases - bldg. & fenc.		442	1259	~~ ~~~~
(10) Total farm purchases (5) to (9)		16238	22712	20098
(11) Decrease in farm capital		777		402
(12) Interest on farm capital		1775	1377	683
(13) Unpaid family labor (14) Board furnished hired labor		366 .11,3.	37 <i>9</i> ₄38⊶	279 31.
(15) Total farm expenses (10) to (14)		18522		2 <u>1</u> 21084
(16) Labor earnings (4) - (15)		1484	24506 4939	21004
(17) Return to capital & family labor		4404	47.77	4747
(17) Recurring to capital & lamily 14.507 $(16) \neq (12) \neq (13)$		3625	6695	3907
(*** (***) * (***)		Jucy	007)	J30 (

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 10 owners, 8 part owners, and 5 renters is shown in Table 7. The statement includes only the operator's 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.

RANGE IN EARNINGS

Every study of farm earnings shows a wide variation in earnings among farmers in a given year (figure 1). The average operator's earnings of those farmers ranking in the upper 25 percent of the range according to earnings was \$9750 and of those in the lower 25 percent was \$128. This is a range of \$9622 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 are as follows: (These factors vary from year to year in their relative influence on earnings).*

- 1. Crop yields
- 2. Choice of crops
- 3. Return from livestock
- 4. Amount of livestock

- 5. Size of business
- 6. Work units per worker
- 7. Control over expenses

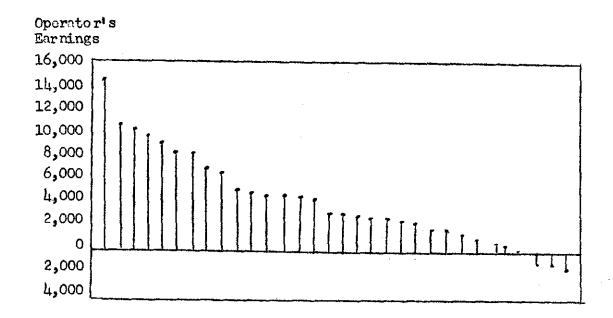


Fig. 1. Range in operator's earnings. Each line represents the earning of one farmer.

* See Pond, G. A. "Why Farm Earnings Vary". Minn. Agric. Expt. Sta. Bul. 386, June, 1945

Nodland, T. R. and Pond, G. A. "Some Factors Affecting the Earnings of Farmers in Southwestern Minnesota". Univ. of Minn., Dept. of Ag. Econ., Report No. 219, November, 1954

Cumulative Effect of Excelling with Number of Management Factors

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

No. of Factors in Which Farmers Excelled	No. of Farms	· .
0 - 1	1	© 339
2 - 3	13	⇒26 <u>4</u> 3
4 - 5	16	\$570 4
6 - 7	2	∂7095

Figure 2, Relation of labor earnings to the number of factors in which the farmer excell, indicates that it will be well worth while for each cooperator to study carefully his ranking on pages 10 and 11 and learn his standing in respect to each of the above factors and the elements of strength and weakness in his farm business.

Table 8. Measures of Farm Organization and Management Afficiency, 1958 average 8 most 8 least of 32 our. profitable profitable Measures used in chart farms farms 'arm farms on page 13 \$ 128 4830 39750 Operator's carnings 100 115 86.3 (1) Crop Yields* (2) Percent tillable land in high 55.5 49.0 53.2 ret. crops** (3) Ret. for 100 feed to prod. 88 700 110 livestock*** (4) Prod. livestock units per 22.6 21.9 20.6 100 A.**** 404 301 362 (5) Size of business - work units (6) York units per worker 256 251 231 (7) Pow., Mach., Equip., Bldg. 13.44 16.92 13.36 exp. per work unit Items related to some of the above measures: (3) Index of return for 100 feed from: 84 11.8 Dairy cattle (see pages 18 & 19) 1.00 Boof cattle brdg. herd (See pg.20) 100 119 54 116 100 100 Baaf cattle-feeders (see p. 20) 94 100 97 Hogs (see page 17) Shoop-farm flock (see p. 21) 100 100 79 115 Chickens 46.2 (4) Number of animal units 53.5 69.0 116 159 (5) Work units on crops 187 240 243 Work units on prod. livestock 6 2 17 Other work units 1.2 1.2 1.4 (6) Number of family workers .2 •2 Number of hired workers .1 1.4 Total number of workers 1.6 1,3 (7) Power expense per work unit 6,46 7.27 7.04 4.72 3.61 3.46 Crop mach. exp. per work unit .69 .48 •75 Livestock equip., exp. per wk. unit 2.60 2.23 4.41 Bldgs.& fonc. exp. per wk. unit

^{**}Civen as a parcentage of the average.

***Crops are marked in Table 10 as (1), (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 perc ent 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.

TH RMOMETER CHART

Using your figures from page 12, locate your standing with respect to the various measures of farm organization and management efficiency. The averages for the 32 farms included in this summary are located between the dotted lines across the center of this page.

Cper.			Return	Pr. L. S.		Work	Pow., mach.
labor		High	from pro-	units	•	units	eq. & bldgs.
earn-	Crop "	return	ductive	\mathtt{par}	Work	per	.oxp. per
ings	yiolds	crops	livestock	100 A.	units	werker	work unit
12000	155	70	740	38 - 5	350	330	5.50
11000	11/0	69	135	36 5	525	320	5.50
10000	135	68	130	34 = 5	500	310	7.50
9000	130	64=	125	32 - 1	175 =	300	8.50
8000	120	62	120	30 = 4	150	290	9.50
7000	115	60 =	115	28	125	280 =	10.50
6000	110	58	110	26	100	270 =	11.50
5000	105	56	105	24 3	375	260 =	12.50
4000	100	54	100	22	350	250	13.50
3000	95	52	95	20 = 3	325	240	14.50
2000	90	50	90	18 🗐 3	300	230	15.50
1000	85	48	85	16 = 2	275	220	17.50
	80	46	80 =	14 = 2	250	210	18.50
-1000	75	44 = 1	75	12 = 2	225	200	19.50
-2000	70	42	70	10 = 2	200	190	20.50
-3000	65	40 =	65	8 = 1	175	180	21.50
-5000 E	60 🖯	38	∫ ∞ 🖯	6 🗐	150	170	22.50

Table 9. Distribution of Acres in Farm, 1958.

	Crop	No. Farmers Raising	Your	Average of
	ratings*	Each Crop	Farm	32 farms
lax	C.	10		10.4
arley	č	6		4.7
heat	C C D	20		9.8
ats & oat mixtures	Ď	27		27.4
at Silage	Č	j i		1.3
otal small grain and peas	•	-		53.6
weet corn and canning peas	A	1	·	1.2
orn grain	A	30		60.0
oybeans for grain	В	SĪ		36.0
orn or sorghum silage	В	18		11.0
Total cultivated crops				108.2
lfalfa hay	В.	28		27.8
ther legume & mixtures	G	2 2		1.4
imothy & brome hay & seed	D	2		1.2
Total tillable land in hay				30.4
lfalfa pasture	В		· .	8.1
ther legume & mixtures	C			1.8
udan and/or rape	C			1.0
ther tillable pasture	, D			
Total tillable land in pasture				10.9
Soil Bank	A			5.1
illable land not cropped	Ď			1.8
Total tillable land				210.0
fild hay				2.5
on-tillable pasture				20.3
imber (not pastured)				10.5
oads and waste			·	11.3
'armstead			<u> </u>	6.9
Total acres in farm				261.5
ercent land tillable			·	80.2
ercent tillable land in high retu				<i>5</i> 3•2

^{*}The crops are classified as A, B, C, or D crops on the basis of their average net returns per acre.

Table 10. Crop Yields Per Acre, 1958

Average	of
Your farms grow	wing
farm each cro	op_
13.8	
46.9	
31.0	
55.8	
And the same of th	
tons 5.8	
#*************************************	
bu. 50.0	
18.7	
, tons 10.1	
tons 2.5	**
ies & mixtures, tons	
brome hay, tons	
	* * * *
ons	

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 76 to 381 with an average of 192 (Table 11). 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 11. Power and Machinery Expenses Per Crop Acre, 1958

,	Your	Average of 32	8 most profitable	8 least profitable
tems .	farm	farms	farms	farms
rop acres per farm		192	260	164
ractor and horse exp. per crop A.		6.08	4.71	5.35
crop & gen. mach. exp. per crop A.		6.02	3.93	8.42

AMOUNT OF LIVESTOCK

A large proportion of the farmers maintained some dairy cattle and hogs (Table 12). Forty-four percent of the farmers kept poultry.

Table 12. Amount of Livestock, 1958

Table 12. Amou	nt or Li	vestock, 19	['] >0	
	Your farm	Average of 32 farms	8 most profitable farms	8 least profitable farms
Number of milk cows		10.3	7.3	6.7
Number of other dairy cattle		10.6	6.9	8•5
Number of beef cattle (incl. feeders)		27.2	48.1	28 .6
Number of sheep*		4.0	3.3	4.3
Number of hens		140	50	184
Litter of pigs raised		5.7	10.8	1.5
Pounds of hogs produced		14621	27872	6590
Pounds of feeder cattle produced		14777	23550	17038

^{*}Two lambs under six months of age considered as one herd.

TOTAL FEED COSTS AND RETURNS FROM YOUR LIVESTOCK ENTERPRISES

The total "return over feed costs" for each class of livestock is shown in Table 13. 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 not 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 13. Total Feed Costs and Returns From Your Livestock Enterprises, 1958

	Dairy or dual purpose cattle					
	Cows	Other	A11	herd		
Total returns			·			
Total feed cost			· · · · · · · · · · · · · · · · · · ·	en en springer en		
Total return over feed	,					
	Feeder Cattle	Hogs	Farm Flock of sheep	Chickens		
Total returns			4			
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 percent of the total costs of maintaining dairy cattle and poultry, 50 percent in the case of a farm flock of sheep, and 75 to 90 percent for hogs, feeder cattle and feeder lambs. Consequently, it is nevessary 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 \$10.70 for those farmers ranking in the upper one-half in feeding efficiency to a return of \$7.34 for those in the lowest one-half. 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 weamed per litter.

Table 14. Feed Costs and Returns from Hogs. 1958

Table 14. Feed C	osos and	Meduliis 1	rom Hogs, 195	
			9 farms	9 farms
		Average	highest in	lowest in
	Your	of 18	returns	returns
	farm	farms	above feed	above feed
Feed per cwt. hogs produced. lbs.:				
Corn		301	204	398
Small grain		116	199	133
Commercial feeds		54	6 6	43
60% alfalfa		$\vec{\mathfrak{I}}_{i}$	7.	72
Total concentrates		475	376	574
Skim milk and buttermilk		417	J10	214
Feed cost per cwt. hogs produced:			~-	
Concentrates	#	\$ 9.98	א ם סר	A 11 20
•		\$ 9.98	\$ 8.25	\$ 11.70
Skim milk and buttermilk			****	**************************************
Pasture		-04	.08	
TOTAL FEED COSTS		10.02	8.33	11.70
Net increase in val. per cwt. hogs prod.		\$ 19.04	\$ 19.03	\$ 19.0h
RETURNS ABOVE FEED COST PER CWT. HOGS PRODUCED	\$	9.02	10.70	7.34
RETURNS FOR \$100 OF FEED	\$	\$202	\$241	\$163
Price received per cwt. hogs sold	\$	20.15	20.42	19.88
No. of spring litters raised		6.1	8.3	3•9
No. of fall litters raised		3.9	6.5	1.3
Total no. of litters raised	ليهو فياشا المكاهب مسيراتها و	10.0	14.8	5.2
No. of pigs born per litter	*** ,**	7.4	8.3	6.4
No. of pigs weamed per litter		6.3	6.8	5•7
Pounds of hogs produced		24982	27939	22025

DAIRY AND DUAL PURPOSE CATTLE

The quantity of feed consumed, value of feeds and returns from dairy cattle are presented in Tables 15, 16, and 17. The statements include one herd which was classified as dual purpose cattle.

The return over feed cost per cow varied from \$1.75 to \$275.72 among the 15 herds covered by this study. Some of the important factors that affected the return over feed were:

- 1. Rate of production (pounds butterfat per cow)
- 2. Price received for butterfat
- 3. Feeding efficiency
- 4. Quality of ration
- 5. Economy of ration (feed cost per pound butterfat)

Table 15. Factors of Co	ost and	Returns from	Dairy Cows,	1958
Items	Your farm	Average of 15 farms	? farms highest in butterfat per cow	8 farms lowest in butterfat per cow
Pounds of butterfat per cow Price rec. per 1b. B.F. sold(cts. Price rec. per 1b. B.Fwh.milk Price rec. per 1b. B.Fcream)	305 84.6 86.2 62.2	360 87.4 87.4	257 82.1 84.9 62.2
Feeds per cow, lbs.: Corn Small grain Commercial feeds		1373 1009 339	1148 1256 474	1569 793 220
Legume hay Other hay Fodder and stover		5896 155 	6874	5040 290
Total concentrates Total dry roughage Silage		2721 6051 8995	2878 6874 10464	2582 5330 7710
Feed cost per cow: Concentrates Roughages Pasture TOTAL FEED COSTS		\$ 53.49 78.84 9.95 142.28	\$ 58.50 92.30 8.97 159.77	\$ 49.11 67.06 10.81 126.98
Value of produce per cow: B.F. sales Dairy produce used in house Milk to livestock Net increase in value of com TOTAL VALUE PRODUCED	wis	\$250.91 3.65 5.28 14.68 274.52	\$307.45 1.86 3.82 7.07 320.20	\$201.44 5.21 6.55 21.34 234.54
RETURNS ABOVE FEWD COST PER COW		132.24	160.43	107.56
RETURNS FOR \$100 OF FEED	لسندو	198	208	189
Feed cost per 1b. B.F. (cents)		48.1	45.6	50.3
Number of cows*		21.8	25.2	18.8

[#]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 16. Feed Costs and Returns from Other Dairy and Bual Purpose Cattle, 1958

Table 16. Feed Costs and Returns	from Other	Dairy and	Dual Purpose	Cattle, 1950
			7 farms	8 farms
		Average	highest in	
	Your	of 15	butterfat	
Items	Farm	farms	per cow	per cow
Feeds per head, lbs.:				
Concentrates		760	856	677
Hay and fodder		2089	2274	1926
Silage		2566	28 91	2282
Skim milk				-
Whole milk		200	151	243
THE CONTROL SINGUISTING IN			/-	
Feed cost per head:				
Concentrates	8	\$ 15.94	3 19.01	\$ 13,26
Roughages	·	23.27	25.65	21.18
Milk		5.50	4.15	6 . 6 8
Pasture		4.64		5.09
				• • •
TOTAL FEED COSTS PER HEAD		49.35	52.95	46.21
	4.2		- 9 4-	
Net inc. in value of other cattle		93.05	94.50	91.77
PERMITARIO (PARE PEREN ACON TRED 119.1)		43.70	41,55	45.56
RETURNS ABOVE FEED COST PER HEAD		43.10	41277	474 50
RETURNS FOR S100 OF FEED		194	179	207
Number of head of other cattle		22.1	25.1	19.6
1.00			·	

Table 17. Feed Costs and Return	ns from Al	l Dairy and D		
Items	Your Farm	Average of 15 farms	7 farms highest in butterfat per cow	8 farms lowest in butterfat per cow
Feeds per animal unit, lbs.: Concentrates Hay and fodder Silage		2408 5337 6691	2549 6001 6767	2285 4756 6624
TOTAL FEED COSTS PER ANIMAL UNIT	\$	125.88	170.08	113.46
Value of produce per animal unit: Dairy products Not increase in value of		171.09	207.82	138.95
dairy cattle		66.80	66.31	67.23
TOTAL VALUE PRODUCED	-	237.89	274.13	206.18
RETURNS ABOVE FEED PER ANIMAL UNIT	rs	112.01	134.05	92.72
RETURNS PER GLOO OF FEED	\$	197	205	190
Animal units of cattle		32.8	37•7	28 46

Table 18. Feed Costs and Returns from Beef Cattle, 1958

Table 18. Feed Costs and Returns	s from Beef Car	1770 LY30
	······································	Average
	Your	of all
Items	farm	farms
	Y CYT IN	6
Beef breeding herd: No. of farms:	· · · · · · · · · · · · · · · · · · ·	. 0
Feeds per animal unit, 1bs.:		-
Concentrates		798
Legume		439կ
Other hay		50
Fodder and stover		, m
		1620
Silage		1020
Feed cost per animal unit:		
Concentrates	3	\$ 16.03
Roughages		43.09
Pasturo		8.08
TOTL FEED COSTS		67.20
		01.00
Value of produce per animal univ:		•
Dairy products	·>	201 00
Net increase in value of animals		154.23
TOTAL VALUE PRODUCED	,	154.23
RETURNS ABOVE FEED COST PER ANIMAL UNIT	\$	87.03
	"	
appertunce than Class or truth	3	231
RETURNS FOR \$100 OF FEED		مد <i>رے</i>
		07 Å
Number of cows and herd bulls		25.0
Number of animal units in the herd		23.2
Lbs. beef produced		10987
		
Feeding Cattle: No. of farms:		13
Corn		462
· ·		
Small grain		7474
· ·		
Small grain		ւր 55
Small grain		նի 55 3կ8
Small grain Commercial feeds Legume hay		ւր 55
Small grain Commercial feeds		նի 55 3կ8
Small grain Commercial feeds Legume hay Other hay		51 [†] 22 7††
Small grain Commercial feeds Legume hay Other hay Total concentrates		կկ 55 21 261
Small grain Commercial feeds Legume hay Other hay Total concentrates Total hay and fodder		ધ્ધ 55 348 24 561 372
Small grain Commercial feeds Legume hay Other hay Total concentrates		կկ 55 21 261
Small grain Commercial feeds Legume hay Other hay Total concentrates Total hay and fodder		ધ્ધ 55 348 24 561 372
Small grain Commercial feeds Legume hay Other hay Total concentrates Total hay and fodder Silage		ધ્ધ 55 348 24 561 372
Small grain Commercial feeds Legume hay Other hay Total concentrates Total hay and fodder Silage Feed per cwt. beef produced:		ધ્ધ 55 348 24 561 372
Small grain Commercial feeds Legume hay Other hay Total concentrates Total hay and fodder Silage Feed per cwt. beef produced: Concentrates		44 55 348 24 561 372 664
Small grain Commercial feeds Legume hay Other hay Total concentrates Total hay and fodder Silage Feed per cwt. beef produced: Concentrates Roughages		144 55 348 24 561 372 664 10•51 3•42
Small grain Commercial feeds Legume hay Other hay Total concentrates Total hay and fodder Silage Feed per cwt. beef produced: Concentrates Roughages Pasture		144 55 348 24 561 372 664 10.51 3.42 .26
Small grain Commercial feeds Legume hay Other hay Total concentrates Total hay and fodder Silage Feed per cwt. beef produced: Concentrates Roughages Pasture TOTAL FEED COSTS		144 55 348 24 561 372 664 10.51 3.42 .26 14.19
Small grain Commercial feeds Legume hay Other hay Total concentrates Total hay and fodder Silage Feed per cwt. beef produced: Concentrates Roughages Pasture TOTAL FEED COSTS Net increase in value of feeders		10.51 3.42 26 11.19 21.14
Small grain Commercial feeds Legume hay Other hay Total concentrates Total hay and fodder Silage Feed per cwt. beef produced: Concentrates Roughages Pasture TOTAL FEED COSTS		144 55 348 24 561 372 664 10.51 3.42 .26 14.19
Small grain Commercial feeds Legume hay Other hay Total concentrates Total hay and fodder Silage Feed per cwt. beef produced: Concentrates Roughages Pasture TOTAL FEED COSTS Net increase in value of feeders		10.51 3.42 664 10.51 3.42 -26 14.19 24.14 9.95
Small grain Commercial feeds Legume hay Other hay Total concentrates Total hay and fodder Silage Feed per cwt. beef produced: Concentrates Roughages Pasture TOTAL FEED COSTS Net increase in value of feeders RETURNS ABOVE FEED COST PER CWT. BEEF PROD.		10.51 3.42 26 11.19 21.14
Small grain Commercial feeds Legume hay Other hay Total concentrates Total hay and fodder Silage Feed per cwt. beef produced: Concentrates Roughages Pasture TOTAL FEED COSTS Net increase in value of feeders		10.51 3.42 664 10.51 3.42 -26 14.19 24.14 9.95
Small grain Commercial feeds Legume hay Other hay Total concentrates Total hay and fodder Silage Feed per cwt. beef produced: Concentrates Roughages Pasture TOTAL FEED COSTS Net increase in value of feeders RETURNS ABOVE FEED COST PER CWT. BEEF PROD.		144 55 348 24 561 372 664 10.51 3.42 .26 14.19 24.14 9.95
Small grain Commercial feeds Legume hay Other hay Total concentrates Total hay and fodder Silage Feed per cwt. beef produced: Concentrates Roughages Pasture TOTAL FEED COSTS Net increase in value of feeders RETURNS ABOVE FEED COST PER CWT. BEEF PROD. RETURNS FOR \$100 OF FEED Price paid per cwt. beef bot		10.51 3.42 561 372 664 10.51 3.42 .26 14.19 24.14 9.95 185
Small grain Commercial feeds Legume hay Other hay Total concentrates Total hay and fodder Silage Feed per cwt. beef produced: Concentrates Roughages Pasture TOTAL FEED COSTS Net increase in value of feeders RETURNS ABOVE FEED COST PER CWT. BEEF PROD. RETURNS FOR 100 OF FEED Price paid per cwt. beef bot Price recd. for feeder cattle sold		10.51 3.42 664 10.51 3.42 .26 14.19 24.14 9.95 185 29.51 24.86
Small grain Commercial feeds Legume hay Other hay Total concentrates Total hay and fodder Silage Feed per cwt. beef produced: Concentrates Roughages Pasture TOTAL FEED COSTS Net increase in value of feeders RETURNS ABOVE FEED COST PER CWT. BEEF PROD. RETURNS FOR 100 OF FEED Price paid per cwt. beef bot Price recd. for feeder cattle sold Number of animal units		10.51 3.42 664 10.51 3.42 .26 14.19 24.14 9.95 185 29.51 24.86 53.1
Small grain Commercial feeds Legume hay Other hay Total concentrates Total hay and fodder Silage Feed per cwt. beef produced: Concentrates Roughages Pasture TOTAL FEED COSTS Net increase in value of feeders RETURNS ABOVE FEED COST PER CWT. BEEF PROD. RETURNS FOR 100 OF FEED Price paid per cwt. beef bot Price recd. for feeder cattle sold		10.51 3.42 664 10.51 3.42 .26 14.19 24.14 9.95 185 29.51 24.86
Small grain Commercial feeds Legume hay Other hay Total concentrates Total hay and fodder Silage Feed per cwt. beef produced: Concentrates Roughages Pasture TOTAL FEED COSTS Net increase in value of feeders RETURNS ABOVE FEED COST PER CWT. BEEF PROD. RETURNS FOR 100 OF FEED Price paid per cwt. beef bot Price recd. for feeder cattle sold Number of animal units		10.51 3.42 664 10.51 3.42 .26 14.19 24.14 9.95 185 29.51 24.86 53.1

CHICKENS

Four of the 14 farmers raising chickens failed to receive a return large enough to cover the cost of feed. The average return over feed from the 14 flocks included in this report was \$1.13 cents per hen (Table 19).

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

- l. Quantity of feed required per hen
- 2. Price received per dozen eggs sold
- 3. Eggs laid per hen

Lbs. chickens produced

- 4. Percent of hens that are pullets
- 5. Percentage death loss of hens

Table 19. Feed Costs and Returns from Chickens, 1958 7 farms 7 farms Average of IL lowest in Your highest in Items farm farms ret. over feed ret. over feed Feed per hen, lbs.: 61 Grain 47 Commercial feeds Total concentrates -Skim milk and buttermilk 3.15 TOTAL FEED COST PER HEN 3.28 Value of produce per hen: 5.52 4.23 Eggs sold and used in house 2.94 Net inc. in value of chicken .18 .18 .17 TOTAL VALUE PRODUCED 4.41 3,11 5.70 1.13 2.29 **-.04** RETURN ABOVE FEED COST PER HEN RETURNS FOR \$100 OF FEED 100 134 167 _28.8 Price recd. per doz. eggs sold 30.3 31.9 (cents) Eggs laid per hen 164 207 122 391 609 173 Ave. no. hens on farm during year 82.8 Percent of hens that are pullets 87.1 91.4 Percent death loss of hons 8.7 8.6 8.8 Number of chickens started: 639 119 379

1883

2991

776

^{*}Includes feeds and returns from laying flock and rearing flock.

Table 20. Summary of Miscellaneous Items by Years

	1953	1954	1955	1956	1957	1958
Acres in farm:						
Small grains	91.4	91.7	68-0	65.8	62.2	53.6
Cultivated crops	63.3	67.9	81.0		108.2	108.2
Tillable land in hay	28.3	34.8		28.5		
Tillable land in pasture	8.5	11.0			15.8	10.9
Soil bank	0.7	. C	22460	TT-4	3.8	5.1
Tillable land not cropped	•2	5.3	.2	3.6	.8	1.8
Total tillable land	191.7	210.7			227.7	$2\overline{10.0}$
Wild hav & non-tillable pastu	me 33.0	30.5	31, 5	26.5	26.2	22.8
Other non-tillable land	29-6	33.3	33.9	30.4	37.5	28.7
Total acres in farm	29.6 254.3	274.5	264.7	270.4	291.4	261.5
Yields per acre:	-)442	-1402	20441	, , O	C/184	2010)
Flax, bu.	10.3	9.6	12.0	12.1	5.3	13.8
Barley, bu.	24.6	29.5	31.5			46.9
Wheat, bu.	10.1	17.6	24.8			31.0
Oats, bu.	5.1	34.1			38.6	55.8
Oat silage, ton	/ → →	2404	4047	44-07	5.1	5.8
Corn grain, bu.	45.1	47.0	45.1	60.0	47.5	50.0
Soybeans, bu.	20.4	19.8			19.8	18.7
Corn silage, tons	8.3	8.2		9.9		
Alfalfa hay, tons	2.7	2.4			_	
Measures of fm. org. & management	~+! 	2.44	C • C	£ • 1	2.€€	2.5
Percent of land in high ret.	or onopolis	9 1.7 E	52.4	55.7	۲0.7°	רים ס
Prod. L.S. units per 100 A.		19.7	14.4			53.2 22.6
Size of business, work units	301	359	356			
Monk inits non ronkon	220	222	255	334	351 338	362
Work units per worker Exp. per work unit	\$ 10 18	227 0 0 40	\$ 9.40		218 313 . 95	256
Return above feed cost per:	9 10 110	5 7.07	O 7.40	∂ ±0•21	ヴェン・ソン	\$13 .36
Dairy cow	367.).0	353.17	\$ 56. 05	605 30	\$113.57	eran oh
					98.68	
An. unit in beef breeding here 100 lbs. feeder cattle produce	04 -2 63	9 90 8 01	-4.68	1.21		
100 lbs. hogs produced	10.07	6 18	200	1. 66	4 51.	
Head native sheep	4.80	6.18 2.70	6 ha	4.66 8.39	6.54	
Hen	2.27			1.28	•87	1.13
Feed cost per:	- 4 m l	- 120	1.70	1020	•01	ر ـ د د د
Dairy cow	3127.24	\$127.61	3133.61	\$130.91	31.8.37	STI(2.28
An. unit in beef breeding here	80.64	73.14				67.20
100 lbs. feed cattle produced					•	14.19
100 lbs. hogs produced	13.15					10.02
Head native sheep	7.63	8.86				TO\$02
Hen	4.19	4.20	3.83			3.28
Misc. livestock information:	44-/	74 00	5 • • • •	J •00	J+ L4	J# EU
No. dairy & dual-purpose cows	10.6	10.9	11.0	10.0	21.5	21.8
Lbs. feeder cattle & herd bull		?	13.9	6.7	13.9	25.0
Lbs. feeder cattle & herd bull		?	3036			36378
Litter of pigs	8	9	9.7	6.6	12.8	10.0
Lbs. hogs produced						24982
No. of hens	160	191	128	161	450	391
Lbs. butterfat per milk cow	255	256	270	300	2 9 6	305
No. pigs weaned per litter	7.1	7.0	6.2	6.0	6.2	6.3
Percent lamb crop	99	97	116	90		ريون
Eggs per hen	174	174	187	201	179	164
-00x k		-14	701	-U.F	JL ()	TOH

Table 20. S	numary of	Miscellaneous	Items '	by Years	(Continued)
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Table 20. Summary of	1953	1954		1956		1958
Price received per:						
Lb. butterfat sold as cream	§ •72	3.74	S • 615	ુ•536		\$.622
Lb. butterfat sold as milk	•90		. 82և	•8 6 6	•88	.862
100 lbs. fat cattle	18.84	19.62	18.79	17.80	17.55	24.86
100 lbs. hogs	21.15	21.44	14.57	14.34	18.13	20.15
100 lbs. lambs	19.21	18.99	19.34	17.51		****
Lbs. of wool	•50	.46	.321	•329		
Doz. eggs	.141	•30	•33	•305	•279	30.3
Price of feed:						
Corn, bu.	3 1.31	31.3h	S1.23	31.25	\$1.10	\$.98
Oats '	•71	•70	.61	•63	•61	•535
Barley, bu.	1.11	1.02	•93	•95	•91	•90
Alfalfa hay, ton	17.50	17.00	18.00	18.50	17.00	17.75
Timothy hay, ton	10.10	9.80	10.40	10.95	9.80	10.25
Corn silage, ton	5.85	5.75	6.00	6.00	5,80	6.00
Soybean meal, cwt.	4.05	4.20	4.10	3.68	3.52	3.50

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 as an 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 21.

Table 21. Number of Work Units for Each Class of Livestock and Each Acre of Crop

Item Dairy and dual-purpose cows	No. of Work units	Item	No. of work units		
	10.0 per cow	Small grain	•5 per acre		
Other dairy & du. pur. cattle	3.5 per an. unit*	Sugar beets	1.5 per acre		
Beef breeding herd	3.5 per an. unit*	Sweet corn	.7 per acre		
Feeder cattle	.25 per 100 lbs.	Corn husked	.7 per acre		
Sheep-farm flock	1.5 per an. unit*	Corn, hogged	4 per acre		
Sheep-feeders	.3 per 100 lbs.	Corn, shredded	1.5 per acre		
Hogs	.2 per 100 lbs.	Corn, silage	1.0 per acre		
<u> </u>	.5 per 100 lbs.	Corn, fodder	1.0 per acre		
Hens	20.0 per 100 lbs.	Alfalfa hay	.6 per acre		
Canning peas	.5 per acre	Soybean hay	.8 per acre		
Soybeans for grain	.5 per acre	Other hay crops			

^{*/}nimal-unit represents one dairy cow or bull, two other dairy cattle, 1 beef cows or bull, 1 feeder steer or heifer, 3 1/3 other beef cattle, 7 sheep, 14 lambs, 2 hogs, 5 pigs, 50 hens or 1,100 pounds of turkeys produced.

Table 22. Summary of Farm Earnings by Years

laore cc•	Sommerth		COCITITITE				
	1953	1954	1955	1956	1957	1958	
No. of farms	52	46	38	39	25	32	
Farm receipts:	•	• -			•		
Dairy & dual-purpose cattle	\$ 690	\$ 811	\$ 626	\$ 629	\$ 814	\$ 786	
	2163	2081	2118	2252	2697	2737	
Dairy products						7140	
Beef cattle	1094	2145	1291	1669	4661		
Hogs	2509	3390	2312	2243	3253	2736	
Sheep and wool	147	187	251	98	31	69	
Horses	2	12		1	19		
Poultry	162	149	74	72	46	120	
Eggs	917	776	680	801	941	841	
Corn	1023	610	1488	2016	2604	1480	
				1080	798	1206	
Small grain	1558	1597	1650				
Other crops	351	597	488	1421	1447	1666	
Mach. & equip. sold	219	234	104	132	297	230	
Income from work off farm	309	485	408	205	223	406	
Miscellaneous	139	204	161	200	201	208	
Total farm sales	11283	13278	11651	$1\overline{2819}$	18032	19625	
Increase in farm capital	1128	775	496	2863	1071	3339	
Family living from the farm	289	294	238	232	205	237	
— — — — — — — — — — — — — — — — — — —							
Total farm receipts	12700	14347	12385	15914	19308	23201	
Farm expenses:					N	-00	
Dairy & dual-purpose cattle be		118	158	154	700	288	
Beef cattle bot	402	781	1519	862	2839	4475	
Hogs bot	130	233	260	282	346	589	
Sheep bot	9	66	2	***	53	93	
Horses bot	5	4	***	-	18		
Poultry bot	107	118	79	102	103	101	
• • • • • • • • • • • • • • • • • • •				242	319		
Misc. livestock expense	159	219	254			339	
Feed bot	1211	1790	1214	1689	57170	2440	
Fertilizers	_	361	331	345	630	382	
Other crop expenses:	620	438	445	515	600	552	
Custom work hired	414	428	406	465	584	575	
Gas, oil & groase bot	798	801	759	719	882	970	
Repairs for mechanical power	304	301	332	328	473	441	
Repair & upkeep of real estat		175	112	156	168	224	
Rep. & upk-ep of crop machine		268	228	266	360	380	
	-			2.00 84			
Rep. & upkeap of livestock	. 77	98	86	-	81	87	
Wages of hired labor	341	542	390	295	537	499	
Electricity expense	113	<u>1</u> 42	148	143	177	171	
Real estate & person. prop. t	axes 464	502	546	535	641	666	
General farm expense	147	182	145	166	197	211	
Total cash operating expen	se 5974	7567	6314	7348	11848	13483	
Capital purchases - mech. pow		697	719	617	606	770	
-crop & gon. mach.	710	1069	765	745	1198	878	
-livestock equipment	123	136	197	324	301	210	
-bldg. & foncing	520	465	388	410	944	605	
Total farm purchases	7919	9934	8383	9444	14897	13946	
Decreaso in farm capital							
Interest on farm capital	1655	1972	1982	2216	2403	2486	
Unpaid family labor	365	225	260	436	358	288	
Board furnished hired labor	72	88	84	88	146	101	
Total farm expenses	10011	12219	10709	12184	17804	18821	
To down to the owners ob	70077	4.c < 4.7	#N (U Z	TCTOH	T (00H		
Tohan asyminas	0490	03.00	7676	2014	י ביהו	Laga	
Labor sarnings	2689	2128	1676	3730	1504	4380	
N *	221	2011	00/0		a. a	m/	
Net cash income	3364	بلبل33	3268	3375	31.35	3679	