

LET'S LOOK AT THE RECORD

1964 Annual Report

**VOCATIONAL AGRICULTURE
FARM MANAGEMENT PROGRAM**

NORTHWESTERN MINNESOTA

REPORT NO. 10

AREA VOCATIONAL TECHNICAL SCHOOL

THIEF RIVER FALLS, MINNESOTA

In Cooperation With

**VOCATIONAL DIVISION, MINNESOTA DEPARTMENT OF
EDUCATION AND AGRICULTURAL EDUCATION DEPT.**

UNIVERSITY OF MINNESOTA

April 1965

1964 REPORT OF THE FARM MANAGEMENT PROGRAM FOR VOCATIONAL
AGRICULTURE IN NORTHWESTERN MINNESOTA

HERE'S WHERE YOU'LL FIND THE INFORMATION

Introduction	1
1964 in a Nutshell	3
Net Worth	4
Summary of Farm Inventories	5
Summary of Farm Earnings (Cash Statement).	6
Summary of Farm Earnings (Enterprise).	7
Family Living From the Farm	8
Household and Personal Expenses and Receipts	9
Range in Earnings	10
Measures in Farm Organization & Management Efficiency.	11
Thermometer Chart.	12
Crop Yields.	13
Power and Machinery Expenses	14
Amount of Livestock.	14
Total Feed Costs & Returns from Livestock Enterprises.	14
Dairy Cattle	15
Sheep.	18
Turkeys.	19
Feeder Cattle.	20
Beef Cattle.	20
Hogs	21
Chickens	22
Average Prices Used.	23
Explanation of "Work Units"	23
Labor Earnings Correlated With Excelled Factors.	24
Summary of Farm Earnings by Years.	25
Crop Summary	26
Returns from Crops and Livestock	28

-1-
LET'S GET ACQUAINTED

The Thief River Falls Area Vocational-Technical School in cooperation with the Minnesota Department of Education and Agricultural Education Department of the University of Minnesota is conducting a farm management program. The program was initiated in 1955, making ten years of farm business analysis for farmers who are enrolled in adult or young farmer classes in the public schools of a twelve county area. Awards were made to the following farmers for 10 years of participation in this program: Mr. & Mrs. LaVerne Clow, Mr. & Mrs. Clyde Christensen, Mr. & Mrs. Martin Hanson, Mr. & Mrs. Gene Nelson, Mr. & Mrs. Rufus Olson, Mr. & Mrs. Julian Rodahl, Mr. & Mrs. Harry Solberg, and Mr. & Mrs. Ed Timm. This is the only farm management program in Northwestern Minnesota which stresses farm records as a basis for evaluating the farming operation.

This report is published annually to provide agriculture teachers and farmers with farm record analysis information which will be helpful to them in studying farming operations. The report is set up to show each cooperating farmer individual figures for his farm, as well as averages for all farms, the top twenty per cent and the bottom twenty per cent in earnings. The report presents each farmer with figures showing his earnings, increase or decrease in net worth, financial standing and a number of efficiency factors on his various enterprises.

The analysis of the records and the preparation of the reports for Northwestern Minnesota are done under the direction of Pete Probasco of the Area Vocational-Technical School at Thief River Falls. Clerical assistants for this project were: Phyllis Moun, Gladys Narverud, Joyce Peterson, and Marie Sorensen.

The Farm Management Program is supervised locally by Marshall Hankerson, Superintendent of Education and Arnt Aune, Director of the Area Vocational Technical School, Thief River Falls, Minnesota. Mr. G.R. Cochran of the State Department of Education, Dr. Milo Peterson of the University Department of Agricultural Education, and Dr. T.R. Nodland of the Agricultural Economics Department have been available as consultants.

This report deals with farmers enrolled in twelve schools in Northwestern Minnesota and one in North Dakota. The following tabulation shows the number of farmers submitting 1964 farm records for analysis, the schools cooperating and the names of the Vo-Ag instructors from these schools.

<u>School</u>	<u>No. of Records</u>	<u>Instructor</u>
Ada	5	Lowell Gunderson
Fertile	18	Conrad Carlson
Fisher	3	Myles Sedenquist
Fosston	1	Dean Syverson
Goodridge	5	Wally Shodean
Greenbush	6	Bernard Nelson
Karlstad	7	Dean McNelly
Lancaster	3	Wendell Francis
Middle River	1	Mervin Milsten
Plummer	2	Lloyd Clementson
Roscau	35	Joe Freeman
Thief River Falls	50	C.E. Sisler
Minto, North Dakota	2	Verne Spengler
Thief River Falls	1	Verne Spengler
Areas not served by Vo-Ag Depts.		Pete Probasco
	10	Vo-Ag Coordinator

The records kept included farm inventories, cash receipts and expenses, 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.

INVESTMENT IN FARMING

The capital investment per farm varied from \$3015 to \$267,294. The average investment for all farms included in this report and for the twenty-nine high and the twenty-nine low in operator's labor earnings is shown on Table 2.

FARM EARNINGS

Operator'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.

There are two methods of computing operator's earnings. Table 3 shows the earnings statement on a cash basis and Table 4 shows the earnings on an enterprise or accrual basis. The principle difference in the two statements is 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.

RETURNS TO CAPITAL

The return to capital and family labor represents the amount the farmer and his family earned with their labor and capital investment. This figure is found in Table 6.

WHY KEEP FARM RECORDS?

Systematic use of records seems to raise the managerial level of the farmers. Once a farmer starts using records to check up on his performance, it is likely that he will continue for some years to improve his position above that of his less systematic neighbor.^{1/}

^{1/} Britannica Research Service

1964 IN A NUTSHELL

	1963	1964
Return to Capital & Family Labor	\$ _____	\$ _____
Net Worth	_____	_____
Ratio of Assets to Liabilities	_____	_____
Expenses per Dollar Income	_____	_____
Return per Dollar Invested	_____	_____

Source of Income

Income from Livestock	\$ _____	\$ _____
Income from Crops	_____	_____
Miscellaneous Income	_____	_____

Size

Work Units-(One work unit equals one ten hour day)	_____	_____
---	-------	-------

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 is presented in Table 1. 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.

HOW MUCH DID WE SAVE OF WHAT WE EARNED?

Table 1. Net Worth Statement for Those Farmers Who Kept a Complete Record of All Assets and Liabilities, 1964

Items	Your farm		135 farms	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31
Total acres in farm			449	
Total farm capital	\$	\$	\$39141	\$40807
Stocks and bonds			352	389
Life insurance			422	485
Accounts receivable			3	2
Shares in marketing org.			690	634
Outside real estate			218	256
Cash on hand and in bank			661	627
Household goods and clothing			1464	1497
Personal share auto & truck			270	290
Dwelling			3109	3125
Investment credit			72	132
Total non-farm assets			7261	7437
TOTAL ASSETS			46401	48244
Federal Land Bank Mortgage			1025	1282
FHA real estate mortgage			2098	2815
Other mortgage on land oper.			3808	3845
Loans on other real estate			468	480
Production Credit Assoc.			2563	2427
FHA chattel mortgage			578	751
Crop loans			308	196
Other chattel mortgages			3238	3690
Notes payable			1464	2107
Accounts payable			1078	994
TOTAL LIABILITIES			16628	18587
Farmers Net Worth			29773	29657
Gain or decrease in net worth				-116

WHAT IS THE CAPITAL INVESTMENT PICTURE IN OUR FARM BUSINESS?

Table 2. Summary of Farm Inventories, 1964

Items	Your farm		Average of 147 farms	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31
Size of farm (acres)	_____	_____	449	
Size of business (work units)*	_____	_____	484	
Dairy cows	_____	_____	\$ 2202	\$ 2382
Other dairy cattle	_____	_____	1435	1402
Beef cattle (incl. feeders)	_____	_____	3782	3849
Hogs	_____	_____	331	306
Sheep (including feeders)	_____	_____	323	334
Poultry (including turkeys)	_____	_____	226	235
Productive livestock (total)	_____	_____	8299	8508
Horses, bees, dogs, mink, rabbits	_____	_____	105	75
Crop, seed, and feed	_____	_____	4235	4131
Auto & truck (farm share)	_____	_____	860	955
Tractors and motors	_____	_____	1470	1672
Crop and general machinery	_____	_____	2798	3060
Livestock equipment	_____	_____	969	1014
Machinery and equipment (total)	_____	_____	6097	6701
Land	_____	_____	15910	16741
Buildings, fences, etc.	_____	_____	5778	6015
Total farm capital	_____	_____	40424	42171

Items	29 most profitable farms		29 least profitable farms	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31
Size of farm (acres)	396		452	
Size of business (work units)*	538		421	
Dairy cows	\$2933	\$3275	\$ 875	\$ 794
Other dairy cattle	1902	1946	615	420
Beef cattle (incl. feeders)	4802	4165	5874	5705
Hogs	311	290	355	273
Sheep (including feeders)	87	73	855	917
Poultry (including turkeys)	499	474	32	24
Productive livestock (total)	10534	10223	8606	8133
Horses, bees, etc.	14	15	12	15
Crop, seed, and feed	5871	6306	5588	5102
Auto & truck (farm share)	909	1127	766	835
Tractors and motors	1529	1887	2015	2021
Crop & general machinery	3185	3261	3089	3401
Livestock equipment	1475	1617	376	427
Machinery & equipment (total)	7098	7892	6246	6684
Land	15582	16973	20853	21493
Buildings, fences, etc.	6163	6976	5874	5578
Total farm capital	45262	48385	47179	47005

* See page 23 for an explanation of "work units".

Table 3. Summary of Farm Earnings (Cash Statement), 1964

Items	Your farm	Average of 151 farms	29 most prof. farms	29 least prof. farms
<u>FARM RECEIPTS Here's where the money came from.</u>				
Dairy and dual-purpose cattle	\$ _____	\$ 918	\$1291	\$ 485
Dairy products	_____	4030	5902	1123
Beef cattle (including feeders)	_____	2640	4350	4391
Hogs	_____	883	940	941
Sheep and wool (including feeders)	_____	378	139	815
Horses & mink	_____	14	--	3
Honey	_____	103	--	3
Poultry (including turkeys)	_____	1929	5578	22
Eggs	_____	829	1560	186
Corn	_____	93	2	25
Small grain	_____	3888	5215	4245
Other crops	_____	750	1489	1264
Mach., equip. sold & gas tax refund	_____	319	705	277
Income from work off the farm	_____	323	223	530
Miscellaneous	_____	537	713	446
(1) Total farm sales	_____	17634	28107	14756
(2) Increase in farm capital	_____	1748	3124	--
(3) Family living from the farm	_____	264	320	215
(4) Total farm receipts (1)+(2)+(3)	_____	19646	31551	14971
<u>FARM EXPENSES Here's where the money went.</u>				
Dairy & dual-purpose cattle bought	_____	172	142	139
Beef cattle bought (inclu. feeders)	_____	1137	1850	2048
Hogs bought	_____	56	9	121
Sheep bought	_____	43	3	173
Horses bought	_____	6	--	3
Bees bought	_____	20	--	--
Poultry bought (including turkeys)	_____	404	918	24
Misc. livestock expense	_____	457	737	192
Feed bought	_____	2776	5756	1189
Fertilizers	_____	838	991	1132
Other crop expense	_____	960	1060	1444
Custom work hired	_____	627	779	539
Gas, oil & grease bought (farm share)	_____	1042	1218	1086
Rep. of mechanical power (farm share)	_____	504	571	468
Repair and upkeep of real estate	_____	149	188	153
Repair and upkeep of crop & gen. mach.	_____	415	457	596
Repair and upkeep of livestock equip.	_____	98	134	41
Wages of hired labor	_____	748	1090	886
Electricity expense (farm share)	_____	269	366	188
Real estate & pers. prop. taxes	_____	675	705	768
Tel. & general farm expense	_____	259	377	254
(5) Total cash operating expense	_____	11655	17351	11444
(6) Cap. purchases-mech. power (f.s.)	_____	836	1292	538
(7) Cap. purchases-crop & gen. mach.	_____	1019	945	1445
(8) Cap. purchases-livestock equip.	_____	196	368	119
(9) Cap. purchases-bldgs. & fencing	_____	1628	2968	883
(10) Total farm purchases (5) to (9)	_____	15334	22924	14429
(11) Decrease in farm capital	_____	---	---	175
(12) Interest on farm capital	_____	2075	2340	2396
(13) Unpaid family labor	_____	115	49	156
(14) Board furnished hired labor	_____	146	265	123
(15) Total farm expenses (10) to (14)	_____	17670	25578	17279
(16) Labor earnings (4) - (15)	_____	1976	5973	-2308

WHAT IS THE VALUE PRODUCED BY EACH ENTERPRISE?

Table 4. Summary of Farm Earnings (Enterprise Statement), 1964*

Items	Your farm	Average of 151 farms	29 most prof. farms	29 least prof. farms
<u>RETURNS AND NET INCREASES</u>				
Dairy and dual-purpose cows	\$ _____	\$4082	\$6082	\$1028
Other dairy & dual-purpose cattle	_____	1108	1703	319
Beef breeding herd	_____	847	652	819
Feeder cattle	_____	740	1238	1402
Hogs	_____	823	937	750
Sheep-farm flock	_____	319	123	681
Sheep-feeders	_____	5	--	27
Turkeys	_____	1743	4731	--
Chickens	_____	651	1471	180
All productive livestock	_____	10318	16937	5206
Value of feed fed to livestock	_____	6648	10,088	4609
Return over feed from livestock	_____	3670	6849	597
Crops, seed and feed	_____	6652	9333	5885
Income from labor off the farm	_____	185	144	201
Agricultural conservation payments	_____	151	103	220
Bees	_____	55	--	--
Miscellaneous	_____	386	610	226
(1) Total returns & Net increases	_____	11099	17039	7129
<u>EXPENSES AND NET DECREASES</u>				
Horses	\$ _____	\$ -7	--	-6
Truck	_____	369	558	197
Auto (farm share)	_____	355	430	316
Tractor	_____	1014	1178	916
Elec. & gas engine exp.(farm share)	_____	270	368	190
Hired power	_____	318	382	264
Total power	_____	2319	2916	1877
Crop and general machinery	_____	1243	1414	1844
Livestock equipment	_____	237	323	94
Buildings, fencing & tiling	_____	628	561	658
Misc. productive livestock expense	_____	459	737	192
Labor	_____	1232	1693	1355
Real estate taxes	_____	484	463	600
Personal property tax	_____	191	242	168
Insurance	_____	116	146	131
General farm	_____	139	231	123
Interest on farm capital	_____	2075	2340	2395
(2) Total expenses & net decreases	_____	9123	11,066	9437
(3) Operator's earnings (1)-(2)	_____	1976	5973	-2308

*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 6.

WHAT IS THE VALUE OF FARM PRODUCTS USED IN THE HOUSE? -----

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

The value of the family living as shown in Table 5 amounts to 1.65 per cent of the total farm receipts on these farms. The values used are shown in Table 24. If these products had been purchased, the amount paid out would have been considerably higher as the figures used were conservative.

Table 5. Family living from the farm, 1964

Items	Your farm	Average of 151 farms	Your farm	Average of 151 farms
Number of persons in family	_____	4.5		
Adult equivalent-family	_____	3.2		
Whole milk	_____	1124 qts.	_____	\$ 83
Skim milk	_____	2 qts.	_____	--
Cream	_____	24 pts.	_____	5
Beef	_____	949 lbs.	_____	186
Hogs	_____	156 lbs.	_____	26
Lamb & mutton	_____	10 lbs.	_____	2
Poultry	_____	23 lbs.	_____	5
Eggs	_____	16 doz.	_____	5
Vegetables, fruits, potatoes, & fuel			_____	12
Total			\$ _____	324

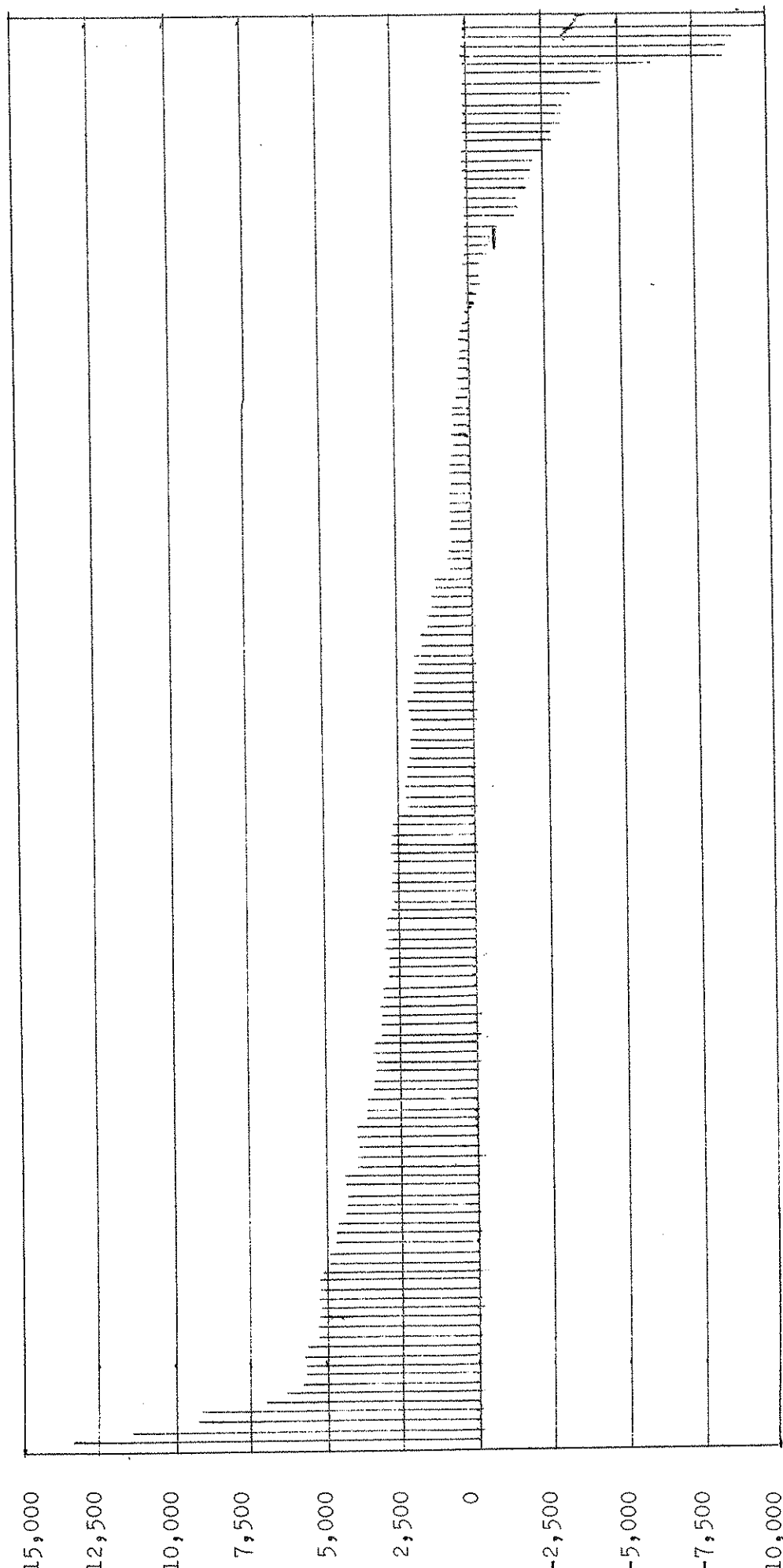
HOUSEHOLD AND PERSONAL EXPENSES AND RECEIPTS

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 6. These farmers spent an average of \$279 per month for family living in addition to the food, fuel, and housing furnished by the farm.

HOW MUCH DID WE SPEND FOR LIVING?

Table 6. Household and Personal Expenses for Those Farms which kept Complete Accounts of These Expenses, 1964

Items	Your farm	Average of 71 farms	20% most prof. farms	20% least prof. farms
Number of persons-family	_____	4.5	4.9	4.4
Number of adult equivalent-family	_____	3.2	3.3	3.1
Food and meals bought	\$ _____	\$1008	\$1080	\$ 921
Operating and supplies	_____	216	266	251
Furnishings and equipment	_____	189	185	194
Clothing and clothing material	_____	319	331	273
Personal care, personal spending	_____	98	130	87
Education, recreation and development	_____	116	173	91
Gifts and special events	_____	103	102	107
Medical care and health insurance	_____	373	408	393
Church, welfare	_____	136	144	178
Personal share of auto & truck expense	_____	131	169	113
Operator's share of upkeep on dwelling	_____	28	19	75
Household share of elec. & tel. expense	_____	97	80	96
Total cash living expense	\$ _____	\$2814	\$3087	\$2779
H.H. & Personal share of new auto	_____	123	227	73
New dwelling	_____	22	--	48
Taxes and other deductions	_____	12	38	10
Life insurance	_____	87	233	57
Other savings and investments	_____	287	44	522
Total H.H. & Personal cash expense	\$ _____	\$3345	\$3629	\$3489
Total family living from the farm	_____	328	359	285
Total cash expense & perquisites	\$ _____	\$3673	\$3988	\$3774
Receipts:				
Return to capital and family labor	\$ _____	\$2930	\$6629	\$-906
Income from investments	_____	28	3	60
Sale of outside investments	_____	7	--	21
Other personal income	_____	284	246	535



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 20 per cent of the range according to earnings was \$5,973 and of those in the lower 20 per cent was -\$2,308. This is a range of \$8,281 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: 1) crop yields, 2) returns from livestock, 3) amount of livestock, 4) size of business, 5) work units per worker, 6) control over expenses.

Fig. 1 Range in Operator's Earnings. Each line represents the earnings of one farmer.

1/ See Pond, G.A. "Why Farm Earnings Vary". Minn. Agri. 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

Table 7. Measures of Farm Organization and Management Efficiency, 1964

Measures used in chart on page 12.	Your farm	Average of 151 farmers	29 most prof. farmers	29 least prof. farmers
Operator's earnings	\$ _____	\$1976	\$5973	\$-2308
(1) Crop yields*	_____	100	106	94
(2) Average net per acre on crops**	_____	7.96	14.71	5.82
(3) Return for \$100 feed to productive livestock***	_____	100	120	86
(4) Productive livestock units per 100 acres****	_____	14.2	21.1	10.6
(5) Size of business-work units	_____	484	538	421
(6) Work units per worker	_____	307	359	259
(7) Power, machinery, equipment and building expense per work unit	\$ _____	\$10.05	\$9.19	\$11.88

Items related to some of the above measures:

Number of animal units (4)	_____	70.6	108.9	58.7
Work units on crops (5)	_____	212	123	260
Work units on productive livestock(5)	_____	270	415	161
Work units on other productive work(5)	_____	2	--	--
Number of family workers (6)	_____	1.3	1.3	1.2
Number of hired workers (6)	_____	.3	.5	.4
Total number of workers (6)	_____	1.6	1.8	1.6
Power expenses per work unit (7)	\$ _____	\$5.26	\$5.14	\$4.98
Crop Mach. expense per work unit(7)	\$ _____	2.82	2.49	4.89
Livestock equipment expense per work unit (7)	\$ _____	.54	.57	.27
Buildings and fencing expense per work unit (7)	\$ _____	1.43	.99	1.74
Index of return for \$100 feed from:(3)				
Dairy cattle (see pages 15,16, & 17)	_____	100	112	75
Beef cattle-breeding herd(page 20)	_____	100	124	79
Feeder cattle(see page 20)	_____	100	113	93
Hogs (page 21)	_____	100	113	107
Sheep-farm flock (see page 18)	_____	100	186	89
Turkeys (see page 19)	_____	100	109	--
Chickens (see page 22)	_____	100	75	95

* Given as percentage of the average.

** Average net per is the total net income on crops divided by the total crop acres.

*** 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 11, locate your standing with respect to the various measures of farm organization and management efficiency. The averages for the 151 farmers included in this summary are located between the dotted lines across the center of this page.

Labor earn- ings	Crop yields	Ret.fr. prod. livestk.	Pr.L.S. units per 100 A.	Work units per worker	Pow.,Mach., eq.,&bldgs exp. per work unit	Net per acre crops
\$11,000	163	163	43	930	525	\$26
10,000	156	156	40	880	500	\$.00
9,000	149	149	37	830	475	1.25
8,000	142	142	33	780	450	2.50
7,000	135	135	30	730	425	3.75
6,000	128	128	27	680	400	5.00
5,000	121	121	23	630	375	6.75
4,000	114	114	20	580	350	7.50
3,000	107	107	17	530	325	8.75
2,000	100	100	14	480	300	10.00
1,000	93	93	11	430	275	11.25
0	86	86	8	380	250	12.50
-1,000	79	79	5	330	225	13.75
-2,000	72	72	3	280	200	15.00
-3,000	65	65	0	230	175	16.25
-4,000	58	58		180	150	17.50
-5,000	51	51		130	125	18.75
-6,000	44	44		80	100	20.00
-7,000	37	37		30	75	21.25

Table 8. Crop Yields Per Acre, 1964

Crop	No. of cases	Your farm	1964 Ave. yield	Acres Your Farm	1964 Ave. Acres
Oats, bu.	127	_____	45.2	_____	115.3
Barley, bu.	57	_____	31.6	_____	54.6
Flax, bu.	60	_____	5.2	_____	48.2
Wheat, bu.	114	_____	19.9	_____	39.9
Soybean, bu.	6	_____	8.3	_____	44.8
Potatoes, cwt.	4	_____	73.1	_____	24.3
Red Clover Seed, lbs.	9	_____	160.4*	_____	41.9
Sweet Clover Seed, lbs.	18	_____	159.6	_____	31.3
Trefoil Seed, lbs.	3	_____	49.0	_____	19.6
Timothy Seed, lbs.	16	_____	89.9	_____	50.8
Alfalfa Hay, tons	111	_____	1.9	_____	79.7
Mixed hay, tons	15	_____	1.1	_____	91.1
Grass hay, tons	12	_____	.7	_____	31.0
Corn silage, tons	78	_____	6.0	_____	32.0
Grass silage, tons	6	_____	5.1	_____	14.6
Millet, lbs.	4	_____	638.6	_____	27.5
Sugar beets, tons	4	_____	11.1	_____	63.5
Corn grain, bu.	17	_____	26.2	_____	36.2
Oats & wheat, bu.	2	_____	7.1	_____	98.0
Oats & barley, bu.	4	_____	52.1	_____	43.3
Pinto beans, lbs.	2	_____	469.2	_____	32.5
Sunflowers, lbs.	6	_____	683.5	_____	88.7
Mustard, lbs.	8	_____	138.3	_____	37.6
Rye, bu.	12	_____	11.4	_____	29.4
Durum, bu.	10	_____	29.3	_____	86.5
Corn fodder, tons	1	_____	2.0	_____	3.0
Sweet clover hay, tons	1	_____	1.2	_____	35.0
Wild & soil bank hay, tons	9	_____	.7	_____	85.8

* Four farmers with red clover seed also harvested an average of 1.1 tons of hay from the same acres.

POWER AND MACHINERY EXPENSE

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 38 to 3515 with an average of 381, Table 9. 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, mach., and labor combined.

Table 9. Power and Machinery Expenses Per Crop Acre, 1964

Items	Your farm	Average of 151 farms	20% most prof. farms	20% least prof. farms
Crop acres per farm	_____	381	413	494
Tractor expense per crop acre	\$ _____	\$2.92	\$3.40	\$2.15
Crop & gen. mach. exp. per crop acre	_____	3.50	3.82	4.33

AMOUNT OF LIVESTOCK

The farmers cooperating in this study are predominantly livestock farmers. 56% of these farmers maintained dairy cattle, 8% poultry, 19% raised sheep, 33% kept beef cattle, 31% raised one or more hogs, 22% raised feeder cattle, and 7% raised turkeys.

Table 10. Amount of Livestock, 1964

	Your farm	Average of 151 farmers	29 most prof. farmers	29 least prof. farmers
Number of milk cows	_____	13.8	20.7	5.7
Number of other dairy cattle	_____	19.0	25.7	8.8
Number of beef cattle(inc.feeders)	_____	31.9	32.7	39.7
Number of ewes	_____	22.1	8.1	53.1
Number of hens	_____	123.0	475.0	53.0
Litters of pigs raised	_____	4.0	5.8	2.1
Number of turkey poults	_____	61.5	310.0	--

TOTAL FEED COSTS AND RETURNS FROM YOUR LIVESTOCK ENTERPRISES

The total "return over feed costs" for each class of livestock is shown in Table 11. 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 lbs.". 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 7. The value of milk consumed by calves is included in the total returns from dairy cows and in the total feed cost for other dairy cattle. The value of milk consumed by calves is not included in either the total returns or the feed cost of "all dairy". 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 11. Total Feed Costs & Returns from Your Livestock Enterprises, 1964

	Dairy Cows	Other Dairy	All	Beef Breeding
Total returns	_____	_____	_____	_____
Total feed cost	_____	_____	_____	_____
Total return over feed	_____	_____	_____	_____
	Feeder Cattle	Hogs	Farm Flock of Sheep	Chickens
Total returns	_____	_____	_____	_____
Total feed cost	_____	_____	_____	_____
Total return over feed	_____	_____	_____	_____

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

DAIRY CATTLE

The quantity of feed consumed, value of feeds and returns from dairy cattle are presented in Tables 12, 14, & 15. The return over feed cost per cow varied from -\$18.93 to \$307.30 among the 73 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 from butterfat
3. Feeding efficiency
4. Quality of ration
5. Economy of ration (Feed cost per pound butterfat)

Table 12. Factors of Cost and Returns from Dairy Cows, 1964

Items	Your farm	Average of 72 farms	15 farms highest in butterfat per cow	15 farms lowest in butterfat per cow
Pounds of butterfat per cow	_____	356	439	255
Pounds of milk per cow	_____	9985	12205	7188
Price rec'd per lb. B.F.(cream)	_____	\$.61	\$ --	\$.60
Price rec'd per lb. B.F.(milk)	_____	.94	.98	.82
Feed per cow, lbs.:				
Corn	_____	433	953	12
Small grain	_____	2718	3084	1900
Commercial feeds	_____	609	754	403
Legume hay	_____	6754	6814	6220
Other hay	_____	754	1381	879
Fodder & stover	_____	4	--	31
Total concentrates	_____	3760	4791	2315
Total dry roughages	_____	7512	8195	7129
Silage	_____	6739	6285	5164
Feed cost per cow:				
Concentrates	\$ _____	\$ 79.97	\$110.56	\$47.51
Roughages	_____	73.73	81.07	62.01
Pasture	_____	6.31	5.64	8.39
TOTAL FEED COST	_____	160.01	197.27	117.91
Value of produce per cow:				
Butterfat sales	\$ _____	\$323.50	\$414.62	\$198.70
Dairy produce used in home	_____	5.37	4.94	5.71
Milk to livestock	_____	5.06	9.31	3.33
Net increase in value of cows	_____	-3.93	-6.14	-4.93
TOTAL VALUE PRODUCED	\$ _____	\$330.00	\$422.73	\$202.81
RETURNS ABOVE FEED COST PER COW	_____	169.99	225.46	84.90
Returns for \$100 of feed	\$ _____	206	214	172
Feed Cost per lb. B.F. (cents)	_____	.45	.45	.46
Number of cows	_____	24.9	27.8	17.5

DAIRY CATTLE

In Table 12 the costs and returns are compared on the basis of level of production. Table 13 shows the same dairy herds compared on the basis of how the product is marketed.

Table 13. Factors of Cost and Returns from Dairy Cows, 1964

Items	Your farm	Grade A Average of 33 farms	Grade B Average of 39 farms
Pounds of butter fat per cow	_____	379	330
Pounds of milk produced per cow	_____	10588	9327
Price rec. per lb. B.F. sold	_____	\$ 1.01	\$.83
Feed per cow, lbs.:			
Corn	_____	626	187
Small grain	_____	2885	2536
Commercial feeds	_____	642	573
Legume hay	_____	6578	7072
Other hay	_____	649	901
Fodder & Stover	_____		10
Total Concentrates	_____	4153	3296
Total dry roughages	_____	7227	7983
Silage	_____	8485	4546
Feed cost per cow:			
Concentrates	\$ _____	\$89.16	\$69.01
Roughages	_____	79.73	66.83
Pasture	_____	5.08	8.00
TOTAL FEED COST	\$ _____	\$173.97	\$143.84
Value of produce per cow:			
Butter fat sales	\$ _____	\$373.01	\$263.01
Dairy produce used in home	_____	4.78	6.22
Milk fed to livestock	_____	5.03	5.17
Net increase in value of cows	_____	-4.33	-3.46
TOTAL VALUE PRODUCED	\$ _____	\$378.49	\$270.94
RETURNS ABOVE FEED COST PER COW	\$ _____	\$204.52	\$127.10
Returns for \$100 of feed	\$ _____	\$ 218	\$ 188
Feed cost per lb. B.F. (cents)	_____	.46	.44
Number of cows	_____	30.6	19.8

Table 14. Feed Costs & Returns from Other Dairy Cattle, 1964

Items	Your farm	Average of 72 farms	15 farms highest in butterfat per cow	15 farms lowest in butterfat per cow
Feed. per head, lbs.:				
Concentrates	_____	669	542	336
Hay and fodder	_____	2904	3160	2360
Silage	_____	1762	1597	1782
Skim Milk	_____	36	--	275
Whole milk	_____	115	230	51
Feed cost per head:				
Concentrates	\$ _____	\$13.90	\$14.31	\$ 8.42
Roughages	_____	25.47	27.88	21.21
Milk	_____	3.99	7.38	3.74
Pasture	_____	3.14	2.35	3.89
TOTAL FEED COSTS PER HEAD	\$ _____	\$46.50	\$51.92	\$37.26
Net inc. in value of other cattle	_____	\$66.52	\$82.76	\$63.59
RETURNS ABOVE FEED COST PER HEAD	_____	\$20.02	\$30.84	\$26.33
Return for \$100 of feed	\$ _____	\$ 144	159	\$ 171
Number of head of other cattle	_____	33.5	35.0	20.2

Table 15. Feed Costs and Returns from All Dairy Cattle, 1964

Items	Your farm	Average of 72 farms	15 farms highest in butterfat per cow	15 farms lowest in butterfat per cow
Feed per cow, lbs:				
Concentrates	_____	4660	5475	2704
Hay and fodder	_____	11419	12182	9857
Silage	_____	9109	8300	7223
TOTAL FEED COSTS PER COW	\$ _____	\$217.19	\$253.46	\$156.64
Value of produce per cow:				
Dairy products	\$ _____	\$328.87	\$419.56	\$204.41
Net inc. in value of dairy cattle	\$ _____	\$ 85.55	\$ 98.26	\$ 68.54
TOTAL VALUE PRODUCED	\$ _____	\$414.42	\$517.82	\$272.95
RETURNS ABOVE FEED PER COW	\$ _____	\$197.23	\$264.36	\$116.31
Returns for \$100 of Feed	\$ _____	\$ 191	\$ 204	\$ 174
Number of cows	_____	24.9	27.8	17.5

Table 16. Feed Costs and Returns from Farm Flock of Sheep, 1964

Items	Your farm	Average of 22 farms	Ave. of 5 high in ret. ab. feed cost	Ave. of 5 low in ret. ab. feed cost
Feeds per Ewe*, lbs.:				
Concentrates	_____	168	110	243
Legume hay	_____	821	945	923
Other hay	_____	101	69	--
Silage	_____	87	6	103
Feed cost per ewe:				
Concentrates	\$ _____	\$ 3.63	\$ 1.92	\$5.00
Roughages	_____	6.76	6.89	6.92
Pasture	_____	1.77	1.81	1.85
TOTAL FEED COSTS	\$ _____	\$ 12.16	\$10.62	\$13.77
Value of produce per ewe:				
Wool	\$ _____	\$ 5.71	\$ 8.39	\$ 4.81
Net increase in value of sheep	_____	15.53	24.88	10.84
TOTAL VALUE PRODUCED	\$ _____	\$ 21.24	\$33.27	\$15.65
RETURNS ABOVE FEED COST PER EWE	\$ _____	\$ 9.08	\$22.65	\$ 1.88
Returns for \$100 of feed	\$ _____	\$ 175	\$ 313	\$ 114
Price per cwt. of lambs sold	\$ _____	\$ 20.38	\$21.31	\$19.86
Price per lb. of wool sold (¢)	\$ _____	66.0	73.4	62.5
Pounds of wool per sheep sheared	_____	8.2	9.9	7.7
Number of ewes kept for lambing	_____	100	64	124
Per cent lamb crop**	_____	110	150	95
Per cent death loss**	_____	11.4	10.1	12.1

* Average number of sheep minus rams.

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

Table 17. Feed Costs and Returns from Turkey Breeder Hens, 1964

Items	Your farm	Average of 5 farms
Feed per hen, lbs.:		
Grain	_____	14
Commercial feeds	_____	131
Total concentrates	_____	145
TOTAL FEED COST PER HEN	\$ _____	\$ 5.74
Value of produce per hen:		
Eggs sold	\$ _____	\$14.81
Net inc. in value of breeder hens	\$ _____	-1.99
TOTAL VALUE PRODUCED	\$ _____	\$12.82
RETURNS ABOVE FEED COST PER HEN	\$ _____	\$ 7.08
Returns for \$100 of Feed	\$ _____	\$ 223
Price per egg (cents)	\$ _____	24.3
Eggs per hen	6 _____	60.9
Ave. no. of hens on farm during year	_____	819.2

Table 18. Feed Costs and Returns from Turkey Poults, 1964

Items	Your farm	Average of 8 farms
Feed per cwt.:		
Grain	_____	126
Commercial feeds	_____	283
Total Concentrates	_____	409
TOTAL FEED COST PER CWT.	\$ _____	\$ 12.55
Net inc. in value of turkeys per cwt.	\$ _____	\$ 17.33
Return above feed cost per cwt.	\$ _____	\$ 4.78
Return for \$100 of feed	\$ _____	\$ 138
Number poults put on feed	_____	9044
% death loss	_____	6.6%
Price per pound sold	\$ _____	20.4
Weight per bird sold	_____	20.2
Pounds turkey produced	_____	168184

Table 19. Feed Costs and returns from Feeder Cattle, 1964

Items	Your farm	Average of 19 farms	4 most prof. farms	4 least prof. farms
Feed per cwt. beef produced, lbs.:				
Corn	_____	239	91	141
Small grain	_____	185	59	254
Commercial feeds	_____	73	183	8
Legume hay	_____	566	290	1524
Other hay	_____	26	--	--
Fodder & stover	_____	--	--	--
Milk	_____	--	--	--
Total concentrates	_____	497	333	403
Total hay and fodder	_____	592	290	1524
Silage	_____	1301	3015	908
Feed cost per cwt. beef produced:				
Concentrates	\$ _____	\$10.37	\$ 4.35	\$ 9.89
Roughages	\$ _____	8.64	12.45	15.64
Pasture	\$ _____	.38	--	2.59
Milk	\$ _____	--	--	--
TOTAL FEED COSTS	\$ _____	\$19.39	\$16.80	\$28.12
Net increase in value of feeders	\$ _____	\$17.36	\$23.52	\$17.00
Returns above feed per cwt. beef prod	_____	-2.03	6.72	-11.12
Returns for \$100 feed	\$ _____	\$ 90	\$ 140	\$ 60
Price paid per cwt. beef bot.	\$ _____	\$20.34	\$17.15	\$15.31
Price rec'd for feeders sold	\$ _____	\$19.39	\$21.34	\$18.70
Number of animal units	_____	67.9	57.5	41.2
Pounds of beef produced	_____	34,466	21,373	9646

Table 20. Feed Costs and Returns from Beef Cattle, 1964

Items	Your farm	Average of 33 farms	7 most prof. farms	7 least prof. farms
Feed per cow, lbs.:				
Concentrates	_____	433	710	410
Legume hay	_____	4509	3874	6287
Other hay	_____	992	1324	730
Silage	_____	4371	3594	4193
Feed cost per cow:				
Concentrates	\$ _____	\$ 9.03	\$17.05	\$ 7.75
Roughages	_____	50.94	46.17	61.46
Pasture	_____	6.83	6.63	8.79
TOTAL FEED COSTS	\$ _____	\$66.80	\$69.85	\$78.00
Value of produce per cow:				
Dairy products	\$ _____	\$.35	--	--
Net increase in value of animals	_____	84.36	128.35	55.68
TOTAL VALUE PRODUCED	\$ _____	\$84.71	\$128.35	\$55.68
RETURNS ABOVE FEED COST PER COW	\$ _____	\$17.91	\$ 58.50	-22.32
Returns for \$100 of feed	\$ _____	\$ 127	\$ 184	\$ 71
Number of cows in the herd	_____	45.4	40.1	32.8
Per cent calf crop	_____	87.6	90.0	83.4

Table 21. Feed Costs and Returns from Market Hogs, 1964

Items	Your farm	Average of 18 farms	4 most prof. farms	4 least prof. farms
Feed per cwt. of hogs produced, lbs.:				
Corn		142	121	395
Small grain		234	87	307
Commercial feeds		98	147	93
Total concentrates		474	355	795
Skim milk		--	--	--
Alfalfa		10	--	7
Feed cost per cwt. hogs produced:				
Alfalfa & silage	\$.08	--	.27
Concentrates	\$	\$11.79	\$ 9.38	\$17.32
Skim milk	\$	--	--	--
Pasture	\$.06	.10	--
TOTAL FEED COST	\$	\$11.93	\$ 9.48	\$17.59
Net increase in val. per cwt.	\$	\$14.54	\$15.09	\$12.77
RETURNS ABOVE FEED PER CWT.	\$	\$ 2.61	\$ 5.61	\$-4.82
Returns for \$100 feed	\$	\$ 122	\$ 159	\$ 73
Price received per cwt hogs sold	\$	\$15.11	\$14.82	\$14.40
Pounds of hogs produced		22,211	21,207	13,954

Table 22. Feed Costs and Returns from Feeder Pig Production, 1964

Items	Your farm	Average of 16 farms	3 most prof. farms	3 least prof. farms
Feed per litter, lbs.:				
Corn		359	677	480
Small grain		1917	996	2084
Commercial feeds		698	447	1626
Milk		11	--	--
Total concentrates		2985	2120	4190
Silage		33	--	--
Alfalfa		249	20	297
Feed Cost per litter:				
Concentrates	\$	\$63.40	\$53.82	\$82.12
Roughages	\$	1.23	--	2.28
Pasture	\$	1.08	.15	--
TOTAL FEED COST	\$	\$65.79	\$53.97	\$84.40
Net increase in value per litter	\$	\$92.88	\$ 96.99	\$90.19
RETURNS ABOVE FEED COST PER LITTER	\$	\$27.09	\$ 43.02	\$ 5.79
Returns for \$100 feed	\$	141	\$ 180	\$ 107
Total no. of litters raised		27.3	33.3	21.3
No. of pigs born per litter		9.5	9.2	8.5
No. of pigs weaned per litter		8.9	8.2	7.6

Table 23. Feed Costs and Returns from Chickens,* 1964

Items	Your farm	Ave. of 5 farms over/350 birds	Ave. of 3 farms under/350 birds
Feed per hen, lbs.:			
Grain	_____	48	85
Commercial feeds	_____	30	50
Total concentrates	_____	78	135
TOTAL FEED COST PER HEN	\$ _____	\$ 2.33	\$ 3.14
Value of produce per hen:			
Eggs sold and used in house	\$ _____	\$ 3.86	\$ 3.44
Net inc. in value of chickens	\$ _____	-.22	-.36
TOTAL VALUE PRODUCED	\$ _____	\$ 3.64	\$ 3.08
RETURNS ABOVE FEED COST PER HEN	\$ _____	\$ 1.31	\$ -.06
Returns for \$100 of Feed	\$ _____	\$ 156	\$ 98
Price rec'd per doz. eggs sold (¢)	_____	28.7¢	25.5¢
Eggs laid per hen	_____	162	161
Ave. no. of hens on farm during yr.	_____	2942	210
Per cent death loss of hens	_____%	10%	9%

*Includes feeds and returns from laying flock and rearing flock.

Table 24. Average Prices of Feed, and Produce Used in Home, 1964

<u>Feed Prices</u>			
<u>Farm Grown Grains</u>		<u>Hay</u>	
Oats	\$.57	Alfalfa-Brome	\$16.00 per ton
Barley	.87	Red Clover	12.00 per ton
Wheat	1.50	Wild Hay	8.00 per ton
Wheat and Oats	1.05	Sweet Clover	9.00 per ton
Rye	1.20	Brome	9.00 per ton
Corn	1.10		
Oats & Peas	.74		
<u>Other Roughages</u>		<u>Milk for Feed</u>	
Corn silage	\$6.00 per ton	Whole milk-Gr. A.	\$3.55 per cwt.
Grass silage	5.00 per ton	Whole milk-Gr. B.	2.97 per cwt.
Oats & oats mix silage	5.00 per ton	Skim milk	.76 per cwt.
<u>Pasture</u>		<u>Home Produce</u>	
\$1.85 an animal unit per month		Milk	7¢ per quart
		Cream	22¢ per pint
Unpaid family labor	\$5.00 per day	Poultry (live)	9¢ per pound
		Beef (live)	20¢ per pound
Board for hired labor	2.50 per day	Hogs (live)	15¢ per pound
unless otherwise specified		Eggs	30¢ per dozen

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 an average efficiency. The number of work units for each class of livestock and each acre of crop are presented in Table 25. Days of work off the farm for pay are not included in work unit computations in this report.

Table 25. Number of Work Units for each Class of Lvstk. & Acre of Crop.

Item	No. of work units	Item	No. of work units
Dairy cows	10.0 per cow	Bees	.33 per hive
Other dairy cows	3.5 per an. unit*	Small grain	.5 per A.
Beef Breeding herd	1.0 per an. unit*	Corn husked	.7 per A.
Feeder cattle	.25 per 100 lbs.	Corn silage	1.0 per A.
Sheep, farm flock	.7 per ewe	Corn fodder	1.0 per A.
Sheep, feeders	.3 per 100 lbs.	Alfalfa hay	.6 per A.
Hogs	.2 per 100 lbs.	Other hay crops	.4 per A.
Feeder Pigs (over 20 lit)	1.5 per litter	Legume seed	.4 per A.
Feeder Pigs (under 20 lit)	2.0 per litter	Grass silage	.6 per A.
Hens	20.0 per 100 hens	Potatoes	2.0 per A.
Turkeys	.3 per 100 lbs.	Sugar beets	1.5 per A.
Turkeys, breeder hens	45.0 per 100 hens	Fallow	.5 per A.

*Animal unit represents one dairy cow or bull, two other dairy cattle, 1¼ beef cows or bulls, 1 feeder steer or heifer, 3-1/3 other beef cattle, 7 sheep, 14 lambs, 2½ hogs, 5 pigs, 50 hens or 1100# turkeys produced.

LABOR EARNINGS CORRELATED WITH EXCELLED FACTORS

Studies of earnings of farmers in this area show that there are seven major management factors causing variations in earnings among farmers within a given year. These seven factors are (1) crop yields, (2) net return per acre on crops, (3) returns 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 Table 26. The farmer's earnings are determined to a considerable extent by his accomplishments in these seven factors.

Table 26.



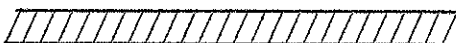
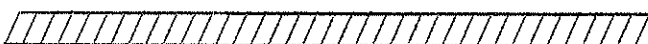
No. of factors in which farmers excelled	No. of farms	-500	0	500	1100	1500	2000	2500	3000	3500	4000
0 or 1	27										-331
2 or 3	53										1349
4 or 5	55										2770
6 or 7	16										3872

Table 26 indicates that it will be worth while for each co-operator to study carefully his ranking on pages 11 and 12 and learn his standing in respect to each of the above factors and the elements of strength and weakness in his farm business.

Table 27. Summary of Farm Earnings by Years

Years	1960	1961	1962	1963	1964
Number of Farms	57	54	85	137	151
FARM RECEIPTS					
Dairy and dual-purpose cattle	\$ 986	\$1460	\$1214	\$1045	\$ 918
Dairy products	2962	3531	4204	3631	4030
Beef cattle (including feeders)	1770	1876	5320	1744	2640
Hogs	483	364	789	750	883
Sheep and wool (including feeders)	786	1064	552	640	378
Horses (64 includes mink)	4	10	5	6	14
Poultry (including turkeys)	1047	680	1041	1651	1929
Eggs	511	353	802	682	829
Honey sold	137	101	142	7	103
Corn (includes soil bank)	276	274	304	255	93
Small grain	3134	3298	3899	4511	3888
Other crops	163	193	932	1074	750
Mach. & equip. sold & gas tax refund	335	579	197	316	319
Income from work off the farm	373	345	431	346	323
Miscellaneous	241	281	322	399	537
(1) Total farm sales	13208	14409	20154	17057	17634
(2) Increase in farm capital	1704	--	--	3918	1748
(3) Family living from the farm	337	287	309	304	264
(4) Total farm receipts (1)+(2)+(3)	15249	14696	20463	21279	19646
FARM EXPENSES					
Dairy and dual-purpose cattle bought	325	355	322	235	172
Beef cattle bought (incl. feeders)	988	928	1448	1266	1137
Hogs bought	38	49	130	69	56
Sheep bought (including feeders)	222	20	69	135	43
Horses bought	8	10	9	8	6
Bees bought	51	37	34	24	20
Poultry bought (including turkeys)	210	178	278	310	404
Misc. livestock expense	304	371	441	413	457
Feed bought	1460	1626	2660	2609	2776
Fertilizers	504	807	885	614	838
Other crop expense	694	728	828	880	960
Custom work hired	431	526	630	550	627
Gas, oil and grease bought (farm share)	1058	1014	1118	1061	1042
Rep. of mechanical power (farm share)	447	476	611	525	504
Repair and upkeep of real estate	118	115	156	128	149
Repair and upkeep of crop & gen.mach.	287	297	388	432	415
Rep. and upkeep of livestock equip.	67	69	88	82	98
Wages of hired labor	437	454	921	707	748
Electricity expense (farm share)	191	215	279	267	269
Real estate & pers. property taxes	519	547	641	636	675
General farm expense	173	192	253	230	259
(5) Total cash operating expense	8532	9014	12189	11181	11655
(6) Cap. purchases-mech. power (f.s.)	456	745	509	636	836
(7) Cap. purchases-crop & gen. mach.	575	451	951	745	1019
(8) Cap. purchases-livestock equip.	122	188	235	240	196
(9) Cap. purchases-bldgs. & fencing	894	493	1284	1645	1628
(10) Total farm purchases (5) to (9)	10579	10891	15168	14447	15334
(11) Decrease in farm capital	--	--	387	--	--
(12) Interest on farm capital	1500	1517	2149	1961	2075
(13) Unpaid family labor	409	345	158	83	115
(14) Board furnished hired labor	130	147	155	122	146
(15) Total farm expenses (10) to (14)	12618	12900	18017	16614	17670
(16) Labor earnings (4) - (15)	2631	1796	2446	4630	1976
(17) Net cash income (1) - (10)	\$2629	\$3518	\$4986	\$2610	\$2300

WHICH ARE MY HIGH RETURN CROPS

The following summary is an attempt to show net return per acre from each crop. The costs charged against each crop are based on: (1) The power and machinery costs, and (2) the other costs as listed in the farm account book. Power and machinery costs include gas, oil, repairs, custom work hired and depreciation. Other costs include such items as purchased seed, fertilizer, chemicals, twine, seed treatment etc. The net per acre represents return to land and labor.

Table 28. Costs and Returns to Crops

Crop	Yield per Acre	Price	Gross Inc. per Acre	Power, Mach.Exp. Per Acre	Other Exp. Per Acre	Tax	Total Exp. Per Acre	Net Per Acre
Oats	45.2	\$.56	\$25.21	\$8.27	\$5.99	\$1.23	\$15.49	\$ 9.72
Barley	31.6	\$.88	\$27.93	\$8.27	\$7.04	\$1.23	\$16.54	\$11.39
Flax	5.2	\$2.62	\$13.66	\$8.27	\$3.76	\$1.23	\$13.26	\$.40
Wheat	19.9	\$1.56	\$31.01	\$8.27	\$9.51	\$1.23	\$19.01	\$12.00
Durum	29.3	\$1.39	\$40.77	\$8.27	\$11.41	\$1.23	\$20.91	\$19.86
Rye	11.4	\$1.00	\$11.43	\$8.27	\$3.49	\$1.23	\$12.99	\$-1.56
Alfalfa hay	1.9	\$14.93	\$27.88	\$9.92	\$4.29	\$1.23	\$15.44	\$12.44
Leg. Mix hay	1.1	\$11.98	\$13.20	\$6.62	\$2.00	\$1.23	\$ 9.85	\$ 3.35
Grass hay	.7	\$ 9.60	\$ 7.77	\$6.62	\$.83	\$1.23	\$ 8.68	\$ -.91
Wild hay	.7	\$ 8.12	\$ 5.41	\$6.62	\$.47	\$1.23	\$ 8.32	\$-2.91
Corn Sil.	6.0	\$ 5.88	\$35.50	\$16.54	\$8.17	\$1.23	\$25.94	\$ 9.56
Corn Grain	26.2	\$ 1.10	\$28.81	\$11.58	\$10.51	\$1.23	\$23.32	\$ 5.49
Sugar Beets	11.1	\$11.29	\$125.60	\$24.81	\$12.18	\$1.23	\$38.22	\$87.38
Pota- toes	73.1	\$ 2.69	\$196.43	\$33.08	\$24.33	\$1.23	\$58.64	\$137.79

Table 28. Continued

Crop	Yield per Acre	Price	Gross Inc. per Acre	Power, Mach. Exp. Per Acre	Other Exp. Per Acre	Tax	Total Exp. Per Acre	Net Per Acre
Sweet Clover seed	159.6	\$.043	\$ 6.85	\$ 6.62	\$ 1.47	\$1.23	\$ 9.32	\$-2.47
*Red \odot Clover seed	160.4	\$.20	\$34.96	\$ 6.62	\$17.97	\$1.23	\$25.82	\$ 9.14
Timothy seed	89.9	\$.19	\$17.52	\$ 6.62	\$ 6.35	\$1.23	\$14.20	\$ 3.32
Oats or Grass silage	5.1	\$5.00	\$25.40	\$ 9.92	\$ 4.79	\$1.23	\$15.94	\$ 9.46
Oats Mixture	52.1	\$.69	\$36.02	\$ 8.27	\$ 6.04	\$1.23	\$15.54	\$20.48
Sun- flowers	683.5	\$.04	\$29.78	\$ 8.27	\$ 7.25	\$1.23	\$16.75	\$13.03
Mustard	138.4	\$.07	\$ 9.87	\$ 8.27	\$2.91	\$1.23	\$12.41	\$-2.54
Pinto Beans	469.2	\$.016	\$ 6.90	\$ 8.27	\$12.16	\$1.23	\$21.66	\$-14.76
Millet	638.6	\$.019	\$12.19	\$ 6.62	\$ 4.86	\$1.23	\$12.71	\$ -.52
Soybeans	8.3	\$2.72	\$22.70	\$ 8.27	\$ 4.24	\$1.23	\$13.74	\$ 8.96
Trefoil seed	49.0	\$.75	\$36.24	\$ 6.62	\$ 2.14	\$1.23	\$ 9.99	\$26.25

*Four farmers with red clover seed also harvested an average of 1.1 tons of hay from the same acres. Value of hay is included in income per acre.

RETURNS FROM CROPS AND LIVESTOCK
ENTERPRISE _____

Crops Grown and Returns from Crops

Crop	Amount	Yield	Acres	Net	Hours	Acres/
Total			A.	B.	C.	
Net/Acre (B-A)			XXX		XXX	
Net/Hour (B-C)			XXX	XXX		

Kind of Livestock

Size of Enterprise

Item	Total	Per	Average/Unit
Value Produced			
Feed Cost			
Misc. Costs (P.20-21)			
Repair, Upkeep (P.43-45)			
Dep. Bldgs & Equip			
Real & Pers. Prop. Taxes			
Expenses (P. 38)			
Electricity			
Total Costs			
Returns-Livestock			
Labor-Livestock			
Return-/Hour Livestock		XXXXXXXXXX	

Returns* Crops + Livestock (The complete Enterprise)

Item	Total	Per	Average/Unit
Net-crops+livestock			
Labor-crops+livestock			
Return/hour		XXXXXXXXXX	
% of total work load		XXXXXXXXXX	