

1966
annual report



**West Central Minnesota
Farm Management Service**

COOPERATING AGENCIES

University of Minnesota, Institute of Agriculture
Minnesota Department of Education, Vocational Division
Willmar Area Vocational Technical School

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1966 Report of the Vocational Agriculture Farm Management
Program in West Central Minnesota

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INTRODUCTION

The Willmar Area Vocational-Technical School in cooperation with the Minnesota Department of Education, Vocational Division, the University of Minnesota Agricultural Education Department, and the University of Minnesota Agricultural Economics Department operate and maintain the Vocational Agriculture Farm Management Program in West Central Minnesota. The program was initiated in 1952 and is available to farmers enrolled in Adult or Young Farmer classes in public schools. The area served by the Willmar analysis center is indicated on the front cover.

The purpose of the Vo-Ag Farm Management Program is to provide farmers and teachers of agriculture with farm record analysis information which will be helpful to them in studying farming operations and factors of management involved in successful farm operation. Each participating farmer is provided a copy of this report which lists his individual farm record analysis figures along with the averages of all farms, the high and low earnings farms. Each participating farmer pays an annual fee which covers clerical costs, data processing fees, and the cost of publishing the report.

The analysis of the records and preparation of the reports for the West Central Area are done under the direction of Edward C. Hartog, Vo-Ag Program Coordinator at the Willmar School, with the assistance of T. R. Nodland of the University of Minnesota, Department of Agricultural Economics. The program is supervised locally by Lowell Mellbye, Superintendent of Schools, and Michael Cullen, Director of the Willmar Area Vocational-Technical School. Cooperating agencies are represented by G. R. Cochran and S. K. Wick of the State Department of Education and Dr. Milo J. Peterson of the University of Minnesota Agricultural Education Department. Clerical assistants for this project were Mrs. Joyce Jacobson, and Mrs. Helen Cullen.

In keeping with the times and to speed the analysis procedure automatic data processing methods were used for the first time this year. Data is extracted from the individual farm record books at the Willmar analysis center and submitted to the Agricultural Records Cooperative at Madison, Wisconsin for processing by means of an IBM 1410 computer. Results of the individual farm analysis are returned to the farmer as soon as his analysis is completed. Averages and indexes found in this report are computed after all forms have been processed.

Records kept in the Minnesota Farm Account Book by all participating farmers include farm inventories, cash receipts and expenses, feed consumed by livestock, family living secured from the farm, household and personal expenses and receipts and the operators liabilities and assets other than farm capital.

SCHOOLS PARTICIPATING

This report deals with farmers enrolled in nine schools in West Central Minnesota. The following tabulation shows by schools the number of 1966 farm records submitted:

School	No. of Records	Instructor
Alexandria	26	Bernard Sonstegard
Appleton	2	Norman Brakken
Canby	1	Norman Haugaard
Echo	1	Eugene Appledorn
Hoffman	6	John Evavold
Lake Benton	2	George Wilcox
Renville	3	Marlyn Wacholz
Tyler	1	Robert J. Hill
Willmar	12	David Shodean
	<u>54</u>	

The data for 49 farms are shown in the tables on succeeding pages. Five farmers were omitted from the averages because the records were not sufficiently complete.

FARM INVENTORIES

The capital managed per farm varied from \$16,590 to \$180,617. The average investment for all farms included in this report and for the high group and the low group in labor earnings is shown in Table 1.

The landlords investment has been included in Table 1 in order to show the total amount used per farm.

FARM EARNINGS

Labor earnings is a measure of the relative financial success of a farm compared with other farms and represents the returns above all farm expenses and a charge for the use of the farm capital.

There are two methods of computing labor earnings. Table 2 shows the earnings statement on a cash basis and Table 3 shows the earnings on an enterprise or accrual basis. The principal differences 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 available to the operator for living expenses, payment on indebtedness and savings. These figures are found in Table 4 and Table 6.

TABLE 1 - SUMMARY OF FARM INVENTORIES - 1966

Items	Your Farm		Average of 49 Farms	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31
Size of farm (acres)			316	
Size of Business (work units)*			443	
Dairy Cattle	\$		\$ 3,055	\$3,258
Other Dairy cattle			1,715	2,111
Beef cattle (incl. feeders)			3,600	4,376
Hogs			2,048	2,143
Sheep (incl. feeders)			151	120
Poultry (incl. Turkeys)			173	172
Total Productive Livestock	\$		\$10,742	\$12,180
Crops (Seed and Feed)	\$		\$ 5,360	\$ 6,934
Auto and Truck (Farm Share)			927	895
Tractors and Motors			2,057	2,263
Crop and General Machinery			3,723	4,789
Livestock Equipment			1,316	1,920
Total Machinery and Equipment	\$		\$ 8,023	\$9,867
Land	\$		\$29,611	\$29,815
Buildings - Fences - Etc.			9,610	10,113
TOTAL FARM CAPITAL	\$		\$63,346	\$68,909

Items	10 Most Profitable		10 Least Profitable	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31
Size of Farm (acres)	393		239	
Size of Business (work units)*	660		309	
Dairy Cattle	\$ 2,487	\$ 2,415	\$ 3,031	\$2,961
Other dairy cattle	2,043	2,488	1,695	1,555
Beef cattle (incl. feeders)	3,925	5,810	460	847
Hogs	5,052	4,600	510	409
Sheep (incl. feeders)				
Poultry (incl. turkeys)	798	805	43	8
Total Productive Livestock	\$ 14,305	\$16,118	\$ 5,739	\$5,780
Crops (Seed and Feed)	\$ 8,459	\$13,119	\$ 2,885	2,941
Auto and truck (farm share)	1,241	1,079	840	737
Tractors and Motors	2,611	3,433	1,295	1,378
Crop and General machinery	4,847	6,562	2,270	2,925
Livestock Equipment	1,866	2,749	628	555
Total Machinery and Equipment	\$ 10,565	\$13,823	\$ 5,033	\$5,595
Land	\$ 28,146	28,746	\$18,835	\$18,835
Buildings - Fences - Etc.	12,808	14,388	7,007	6,658
TOTAL FARM CAPITAL	\$ 74,283	\$86,194	\$39,499	\$39,809

*See page 10 for an explanation of "work units."

TABLE 2 - SUMMARY OF FARM EARNINGS (CASH STATEMENT) - 1966

Item	Your Farm	Average of 49 Farms	Most Profitable Farms	10 -- Least Profitable Farms
FARM RECEIPTS:				
Dairy Cattle	\$ _____	\$ 1,769	\$ 3,088	\$ 1,585
Dairy Products	_____	5,457	5,652	3,869
Beef Cattle (Incl. Feeders)	_____	4,659	4,726	39
Hogs	_____	6,156	17,120	1,597
Sheep and Wool	_____	187		
Poultry (Incl. Turkeys)	_____	51	228	12
Eggs	_____	747	3,476	82
Corn	_____	1,470	508	988
Small Grain	_____	649	661	269
Diverted Acre Income	_____	1,068	892	658
Other Crops	_____	2,095	2,503	1,244
Gas Tax Refunds + Cap. Assets Sold	_____	792	1,341	76
Income From Work Off The Farm	_____	356	355	293
Miscellaneous Farm Income	_____	430	622	201
(1) Total Farm Sales	_____	\$25,886	\$41,172	\$10,913
(2) Increase in Farm Capital	_____	5,563	11,911	310
(3) Family Living From the Farm	_____	330	523	279
(4) Total Farm Receipts (1+2+3)	_____	\$31,779	\$53,606	\$11,502
FARM EXPENSES:				
Dairy Cattle Bought	_____	\$ 408	\$ 404	\$ 575
Beef Cattle Bought (Incl. Feeders)	_____	2,624	3,155	
Hogs Bought	_____	152	246	179
Sheep Bought	_____	95		
Poultry Bought (Incl. Turkeys)	_____	82	335	17
Miscellaneous Livestock Expense	_____	574	917	258
Feed Bought	_____	4,200	8,213	1,308
Fertilizer	_____	448	79	
Other Crop Expense	_____	1,482	2,925	834
Custom Work Hired	_____	741	969	351
Gas, Oil, Grease Bought (Farm Share)	_____	1,038	1,364	696
Repairs for Tractors, Trucks and Autos (Farm Share)	_____	681	798	589
Repair + Upkeep of Farm Real Estate	_____	275	408	74
Repair + Upkeep of Crop + Gen. Mach.	_____	424	431	367
Repair + Upkeep of Livestock Equip.	_____	174	192	48
Wages of Hired Labor	_____	435	864	164
Electricity Expense	_____	285	397	198
Personal Property + Real Est. Taxes	_____	922	1,048	632
Telephone and General Farm Expense	_____	363	412	220
(5) Total Cash Operating Expense	_____	\$15,403	\$23,157	\$ 6,510
(6) Mech. Power Bought (Farm Share)	_____	935	1,771	574
(7) Crop and Gen. Machinery Bought	_____	1,885	2,270	1,177
(8) Livestock Equipment Bought	_____	868	1,442	16
(9) New Real Estate + Improvements	_____	1,739	3,448	13
(10) Total Farm Purch. (5) thru (9)	_____	\$20,830	\$32,088	\$ 8,290
(11) Decrease in Farm Capital	_____			
(12) Interest on Farm Capital	_____	3,306	4,012	1,983
(13) Unpaid Family Labor	_____	489	1,194	461
(14) Board Furnished Hired Labor	_____	68	128	18
(15) Total Farm Exp. (10 - 14)	_____	\$24,693	\$37,422	\$10,752
(16) Labor Earnings (4 minus 15)	_____	\$ 7,086	\$16,184	\$ 750

TABLE 3 - SUMMARY OF FARM EARNINGS (ENTERPRISE STATEMENT) 1966

Item	Your Farm	Average of 49 Farms	10 -- Most Profitable Farms	10 - Least Profitable Farms
<u>RETURNS AND NET INCREASES</u>				
Dairy Cattle	_____	\$ 5,706	\$ 6,020	\$ 3,995
Other Dairy Cattle	_____	2,023	2,964	911
Beef Breeding Cattle	_____	299	424	88
Feeder Cattle	_____	2,551	3,171	357
Hogs	_____	6,146	16,544	1,355
Sheep	_____	62		
Turkeys	_____			
Chickens	_____	737	3,439	55
All Productive Livestock	_____	17,524	\$32,562	6,761
Value of Feed Fed to Livestock	_____	11,119	18,161	5,481
Return over Feed From Livestock	_____	6,405	14,401	1,280
Crop, Seed and Feed	_____	11,756	16,094	6,528
Income From Labor Off the Farm	_____	125	128	104
Agricultural Conservation Payments	_____	9		21
Miscellaneous	_____	420	622	180
Total Returns and Net Increases	_____	\$18,715	\$31,245	8,113
<u>EXPENSES AND NET DECREASES</u>				
Truck	_____	\$ 269	\$ 328	\$ 232
Auto (Farm Share)	_____	529	491	476
Tractor	_____	1,384	2,012	1,019
Electric and Gas Engines	_____	287	397	203
Hired Power	_____	348	450	163
Total Power	_____	2,817	3,678	2,093
Crop and General Machinery	_____	1,272	1,082	840
Livestock Equipment	_____	438	731	136
Buildings, Fences and Tiling	_____	898	1,276	437
Bare Land	_____	204-	600-	
Misc. Livestock Expense	_____	574	917	258
Labor	_____	1,242	2,507	761
Real Estate Taxes	_____	754	830	506
Personal Property Tax	_____	167	218	126
Insurance	_____			
General Farm Expense	_____	363	412	220
Interest on Farm Capital	_____	3,306	4,012	1,983
Total Expenses and Net Decreases	_____	\$11,627	\$15,063	\$ 7,360
Labor Earnings	_____	\$ 7,088	\$16,182	\$ 753

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.

TABLE 4 - HOUSEHOLD AND PERSONAL EXPENSES FOR THOSE FARMS WHICH KEPT COMPLETE ACCOUNTS OF THESE EXPENSES - 1966

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 4. These farmers spent an average of \$315.00 per month for family living in addition to the food, fuel, and housing furnished by the farm.

Item	Your Farm	Average of 23 Farms
Number of Persons - Family	_____	4.7
Number of Adult Equivalent - Family	_____	3.4
Food and Meals Bought	_____	\$ 1,183
Operating and Supplies	_____	315
Furnishings and Equipment	_____	250
Clothing and Clothing Materials	_____	365
Personal Care, Personal Spending	_____	126
Education and Recreation	_____	185
Gifts and Special Events	_____	121
Medical Care and Health Insurance	_____	430
Church and Welfare	_____	138
Pers. Share Truck and Auto Exp.	_____	203
Oper. Share Upkeep on Dwelling	_____	112
Pers. Share Tel. and Elect. Exp.	_____	
Total Cash Living Expenses	_____	\$ 3,545
Pers. Share New Truck and Auto	_____	
New Dwelling Bought	_____	137
Taxes and Other Deductions	_____	95
Life Insurance	_____	
Other Savings and Investments	_____	
Total Household + Pers. Cash Exp.	_____	\$ 3,777
Total Family Living From the Farm	_____	353
Total Cash Exp. and Perquisites	_____	\$4,130
Income-Operators Labor Earnings	_____	\$ 5,588
Return to Capital and Labor	_____	6,864
Total Money Borrowed	_____	9,403
Paid on Debts - Principal	_____	\$ 8,332

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 on a tenure basis is presented in Table 5. 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 5 - NET WORTH STATEMENT FOR THOSE FARMERS WHO KEPT A COMPLETE RECORD OF ALL ASSETS AND LIABILITIES - 1966 (OPERATOR'S SHARE - TENURE BASIS)

Items	Owner Average			
	Your Farm		Average of 24 Farms	
	Jan. 1 - -	Dec. 31	Jan. 1 - -	Dec. 31
Total Farm Capital	\$ _____	\$ _____	\$49,342	\$55,104
Auto - Personal Share	_____	_____	289	254
Dwelling	_____	_____	3,214	3,377
Other Personal Assets	_____	_____	7,188	7,851
TOTAL ASSETS	_____	_____	60,033	66,586
Real Estate Mortgages	_____	_____	15,239	16,221
Chattel Mortgages	_____	_____	8,410	9,143
Notes	_____	_____	2,645	2,255
Accounts Payable	_____	_____	1,437	1,647
TOTAL LIABILITIES	_____	_____	\$27,732	\$29,265
FARMER'S NET WORTH	_____	_____	\$32,302	\$37,321
GAIN IN NET WORTH	_____	_____	_____	5,019

Items	Part Owner Average			
	Your Farm			
	Jan. 1 - -	Dec. 31		
Total Farm Capital	\$ _____	\$ _____		
Auto-Personal Share	_____	_____		
Dwelling	_____	_____		
Other Personal Assets	_____	_____		
TOTAL ASSETS	_____	_____		
Real Estate Mortgages	_____	_____		
Chattel Mortgages	_____	_____		
Notes	_____	_____		
Accounts Payable	_____	_____		
TOTAL LIABILITIES	_____	_____		
FARMER'S NET WORTH	_____	_____		
GAIN IN NET WORTH	_____	_____		

Items	Renter Average			
	Your Farm		Average of 7 Farms	
	Jan. 1 - -	Dec. 31	Jan. 1 - -	Dec. 31
Total Farm Capital	\$ _____	\$ _____	\$25,265	\$33,361
Auto - Personal Share	_____	_____	645	829
Dwelling	_____	_____		
Other Personal Assets	_____	_____	3,939	4,326
TOTAL ASSETS	_____	_____	\$29,849	\$38,516
Real Estate Mortgages	_____	_____		
Chattel Mortgages	_____	_____	\$ 8,216	\$ 9,916
Notes	_____	_____	6,989	8,253
Accounts Payable	_____	_____	2,023	2,321
TOTAL LIABILITIES	_____	_____	\$17,227	\$20,489
FARMER'S NET WORTH	_____	_____	\$12,622	\$18,027
GAIN IN NET WORTH	_____	_____	_____	\$ 5,405

TABLE 6 - SUMMARY OF FARM EARNINGS BY TENURE - 1966 (OPERATOR'S SHARE)

Items	Your Farm	42 Owners & Part Owners	7 Renters
FARM RECEIPTS:			
Dairy and Dual Purpose Cattle	\$ _____	\$ 2,027	\$ 218
Dairy Products	_____	6,142	1,350
Beef Cattle - Including Feeders	_____	3,897	6,893
Hogs	_____	6,212	5,821
Sheep and Wool - Including Feeders	_____	9	1,256
Poultry - Including Turkeys	_____	59	1
Eggs	_____	853	117
Corn	_____	604	3,322
Small Grain	_____	523	427
Diverted Acre Income	_____	784	1,511
Other Crops	_____	1,381	3,815
Gas Tax Refund & Cap. Assets Sold	_____	182	162
Income From Work Off the Farm	_____	324	462
Miscellaneous	_____	447	255
1 Total Farm Sales	_____	23,445	25,611
2 Increase in Farm Capital	_____	5,678	8,096
3 Family Living from the Farm	_____	340	242
4 Total Farm Receipts 1+2+3	_____	29,463	33,949
FARM EXPENSES:			
Dairy and Dual Purpose Cattle	_____	448	171
Beef Cattle - Including Feeders	_____	2,115	4,526
Hogs	_____	109	409
Sheep	_____	11	596
Poultry	_____	93	14
Misc. Livestock Expense	_____	588	454
Feed	_____	4,054	4,891
Fertilizers	_____	332	886
Other Crop Expense	_____	1,343	1,643
Custom Work Hired	_____	735	716
Gas - Oil - Grease	_____	990	1,207
Tractor-Truck-Auto Repairs	_____	670	711
Real Estate Repairs	_____	280	108
Crop and Gen. Mach. Repairs	_____	390	590
Livestock Equip. Repairs	_____	172	152
Wages of Hired Labor	_____	412	576
Electricity Expense	_____	293	220
Real Estate and Property Taxes	_____	734	154
Cash Rent	_____	452	1,097
General Farm	_____	357	347
Interest Expense	_____	1,065	882
Total Cash Operating Expenses	_____	15,644	20,349
Mech. Power Bought	_____	856	1,410
Crop and Gen. Mach. Bought	_____	1,342	5,084
Livestock Equipment Bought	_____	901	672
New Real Estate & Improvements	_____	1,976	312
5 Total Farm Purchases	_____	20,720	27,828
6 Decrease in Farm Capital	_____		
7 Interest on Farm Capital	_____	1,443	584
8 Unpaid Family Labor	_____	552	110
9 Board For Hired Labor	_____	66	55
10 Total Farm Expenses 5+6+7+8+9	_____	\$22,781	\$28,577
11 Labor Earnings 4-10	_____	6,682	5,371
12 Ret. to Cap. and Labor 7+8+11	_____	\$ 8,677	\$6,065

RANGE IN EARNINGS

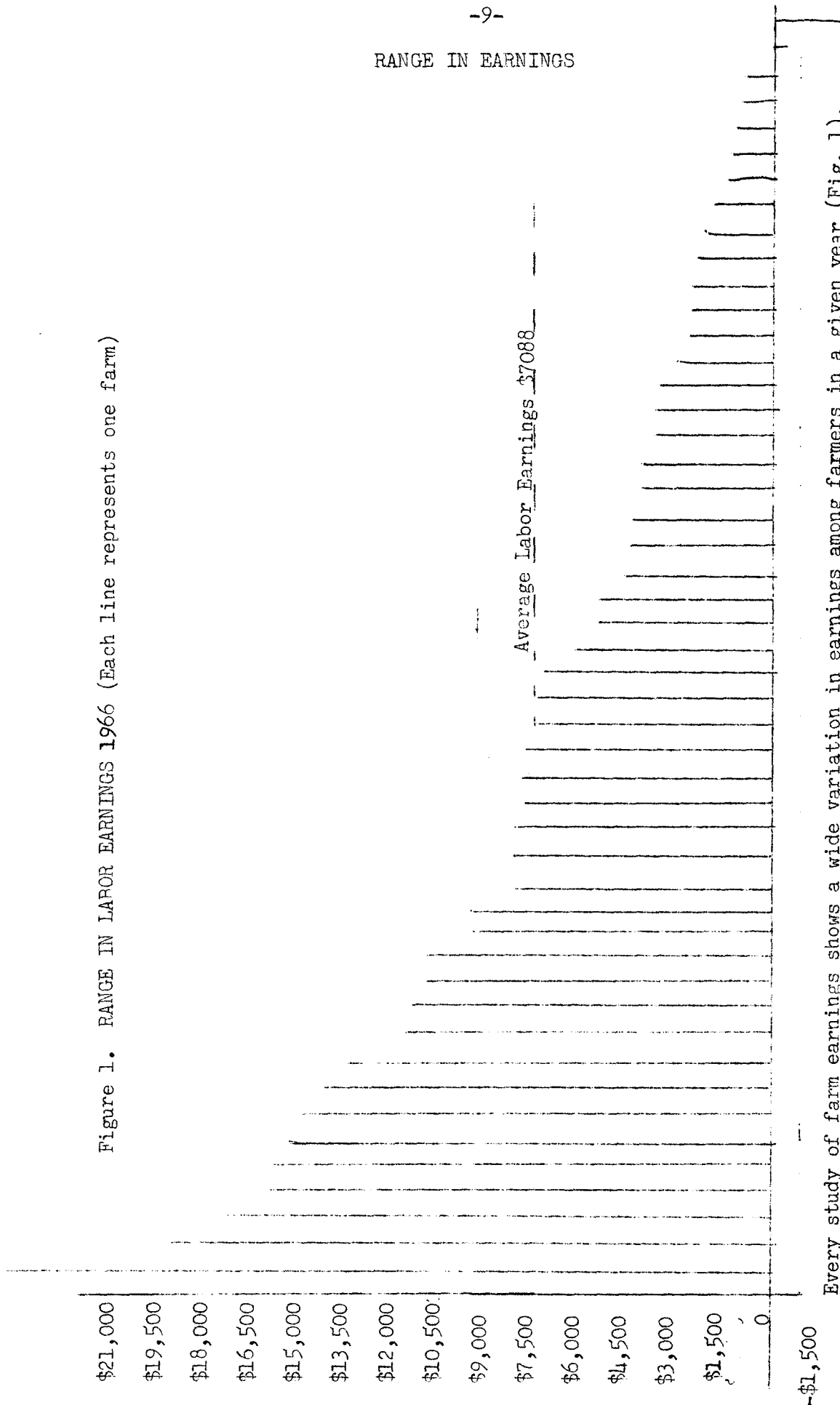


Figure 1. RANGE IN LABOR EARNINGS 1966 (Each line represents one farm)

Every study of farm earnings shows a wide variation in earnings among farmers in a given year (Fig. 1). The average labor earnings of those farmers ranking in the upper 25% of the range according to earnings was \$16,182 and of those in the lower 25% was \$753. This is a range of \$15,429 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 listed on Page 11.

EXPLANATION OF WORK UNITS AND ANIMAL 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 below.

NUMBER OF WORK UNITS FOR EACH CLASS OF LIVESTOCK & EACH ACRE OF CROP

Item	No. of Work Units	Item	No. of Work Units
Dairy Cattle	10.0 Per Cow	Small Grain, Peas	.5 Per Acre
Other Dairy Cattle	3.5 Per An. Unit*	Corn, Husked	.7 Per Acre
Beef Breeding Herd	3.5 Per An. Unit	Corn Silage	1.0 Per Acre
Feeder Cattle	.25 Per 100 lbs.	Sweet Corn	.7 Per Acre
Sheep-Farm Flock	1.5 Per An. Unit	Soybean, Grain	.5 Per Acre
Sheep-Feeders	.3 Per 100 lbs.	Alfalfa Hay	.6 Per Acre
Hogs	.2 Per 100 lbs.	Other Hay and Seed	.4 Per Acre
Hens	20.0 Per 100 Hens	Grass Silage	.4 Per Acre
Turkeys	.5 Per 100 lbs.	Soil Bank	.4 Per Acre

* Animal unit represents one dairy cow or bull, two other dairy cattle, one and one-fourth beef cows or bulls, one feeder steer or heifer, three and one-third other beef cattle, seven sheep, fourteen lambs, two and one-half hogs, five pigs, fifty laying hens, twenty-five turkey hens, eleven hundred pounds of turkey produced.

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 expenses are high on 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. These figures are found at the bottom of Table 8.

TABLE 8 - MEASURES OF FARM ORGANIZATION AND MANAGEMENT EFFICIENCY - 1966

Measures Used In Chart On Page . . . 12	Your Farm	Average of 49 Farms	10 most profitable farms	10 least profitable farms
Labor Earnings	\$ _____	\$7,088	\$16,185	\$753
(1) Crop yields*	_____	100	102	87
(2) Percent tillable land in high return crops	_____	58.6	61.3	54.5
Gross Return Per Acre	_____	57.35	61.13	47.05
(3) Return for \$100 feed fed to productive livestock*	_____	103	114	81
(4) Livestock Units per 100 Acres**	_____	24.5	32.8	15.3
(5) Size of Business - Work Units	_____	442	660	308
Work Units Per Worker	_____	313.8	356.7	237.2
(6) Power, Mach., Equip., Bldg. Exp. Work Unit	\$ _____	\$12.26	\$10.25	\$11.37

Items related to some of the above measures:

(3) Index of return for \$100 feed from*

Dairy Cattle	_____	100	103	74
Beef Cattle - Breeders	_____	100	146	88
Beef Cattle - Feeders	_____	99	112	98
Hogs	_____	100	116	85
Sheep	_____	100		
Chickens	_____	100	102	52
(4) Number of Animal Units	_____	67.0	108.0	34.4
Number of Workers	_____	1.4	1.9	1.3
(5) Work Units On Crop	_____	133	178	95
Work Units on Livestock	_____	301	473	207
Other Prod. Work Units	_____	8	9	6
(6) Power Expense Per Work Unit	_____	\$6.36	\$5.57	\$6.79
Mach. Expense Per Work Unit	_____	2.87	1.64	2.72
Equip. Expense Per Work Unit	_____	.99	1.11	.44
Bldg. Expense Per Work Unit	_____	2.03	1.93	1.42
Tractor Expense Per Crop Acre	_____	7.23	7.88	7.41
Crop - Gen. Mach. Exp. Per Crop Acre	_____	6.20	3.96	5.80

*Given as a percentage of the average.

**Acres in timber, roads, waste, farmstead 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 farms included in this summary are located between the solid lines across the center of this page.

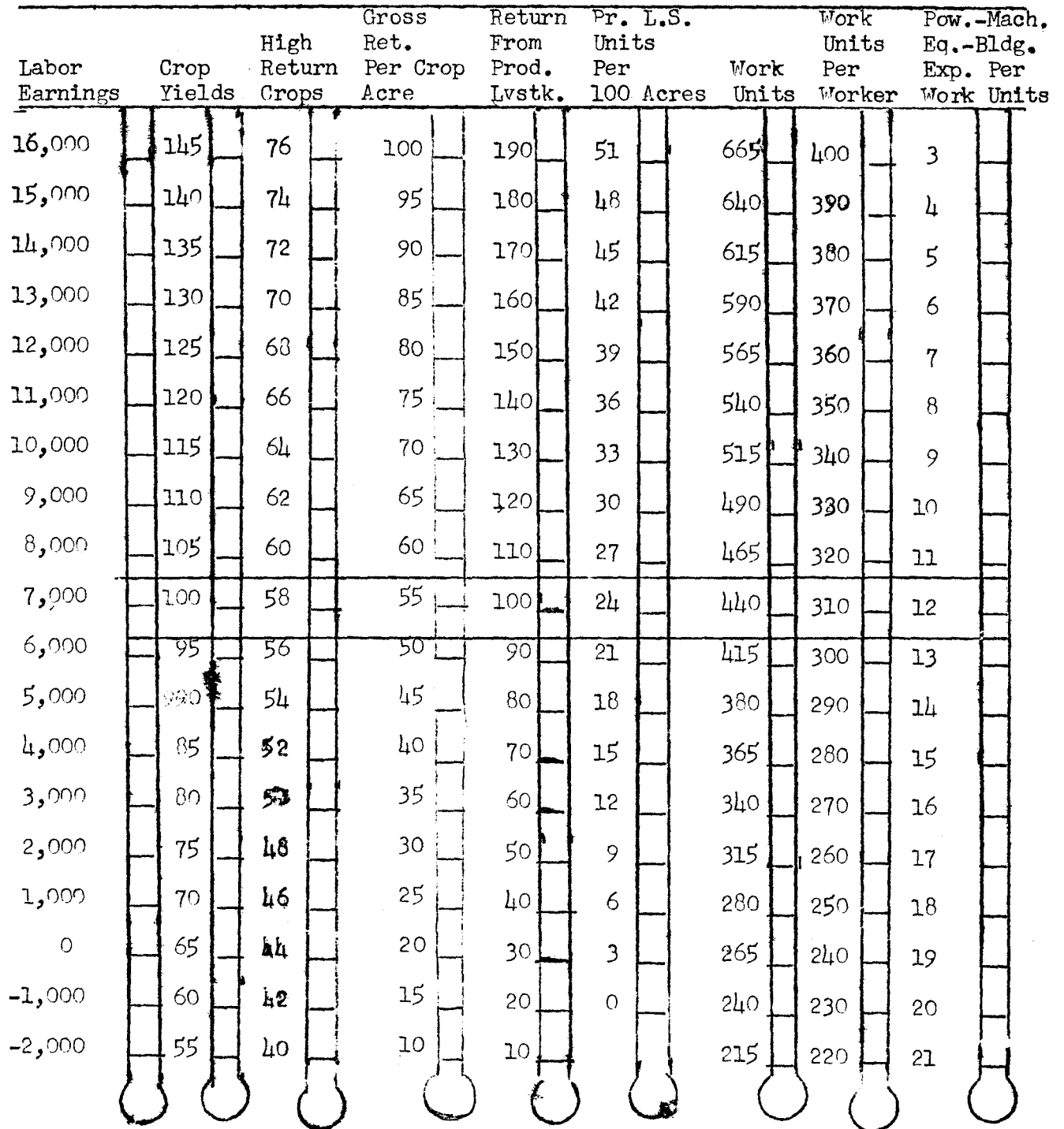


TABLE 9 - DISTRIBUTION OF ACRES AND YIELD - 1966

Crop	Crop Rating	Number Growing	Acres Your Farm	Average acres of 49 Farms	Your Field Per Acre	Your Yield Per Acre
Oats and Mixtures	D	41	_____	30.0	_____	42.3
Rye		1	_____	.1	_____	31.8
Oats Silage		7	_____	2.9	_____	4.7
Canning Peas		1	_____	.5	_____	44.00
Wheat		20	_____	6.3	_____	20.5
Barley		3	_____	.9	_____	38.0
Flax		11	_____	8.4	_____	8.7
Total Small Grain and Peas				49.1		
Canning Corn						
Corn Grain & Seed Corn	A	48	_____	64.2	_____	71.1
Soybeans - Grain	B	30	_____	37.3	_____	22.3
Corn Silage	B	38	_____	15.1	_____	9.8
Corn and Cane Fodder			_____		_____	
Other Cultivated Crops						
Total Cultivated Crops				116.7		
Potatoes		1	_____	.1		277.8
Alfalfa Hay	B	47	_____	35.6		2.6
Other Legumes and Mixtures		7	_____	2.3	_____	1.5
Annual Hay		4	_____	1.2	_____	1.2
Legume and/or Grass Seed-Lbs		2	_____	.4	_____	31.5
Total Hay				39.5		
Alfalfa Pasture						
Other Legume Pasture		10	_____	3.0	_____	
Other Tillable Pasture		2	_____	.2	_____	
Other Tillable Pasture		4	_____	1.6	_____	
Total Tillable Pasture				4.8		
Diverted Acres						
Tillable Land Idle	A	33	_____	26.7	_____	37.02
Tillable Land Idle		7	_____	2.8	_____	
TOTAL TILLABLE LAND				239.6		
Wild Hay Ton						
Non-Tillable Pasture		16	_____	3.4	_____	1.0
Timber		32	_____	30.8	_____	
Roads and Waste		15	_____	9.9	_____	
Farmstead		46	_____	22.4	_____	
Farmstead		45	_____	10.2	_____	
TOTAL ACRES IN FARM				316.3		
Percent Land Tillable				75.8		
Percent in High Return Crops				58.6		

TOTAL FEED COSTS AND RETURNS FROM YOUR LIVESTOCK ENTERPRISES

The total "return over feed costs" for each class of livestock is shown in Table 10. 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 pound." 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 not increases shown on page 5. 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 the total returns or the feed cost of "all dairy" cattle. The return over feed is not a net return, but rather the amount available from the gross income, after paying the feed bill, to cover the outlay for hired labor, power, equipment, taxes, insurance, interest and veterinary bills and to provide a return for the use of family labor and capital.

1966

TABLE 10 - TOTAL FEED COSTS AND RETURNS FROM YOUR LIVESTOCK ENTERPRISES

	Dairy Cattle			Beef
	Cows	Other	All	Breeding Herd
Total Returns	\$ _____	_____	_____	\$ _____
Total Feed Costs	_____	_____	_____	_____
Total Returns Over Feed	\$ _____	_____	_____	\$ _____

	Feeder	Hogs	Farm Flock	Chickens
	Cattle		of Sheep	
Total Returns	\$ _____	\$ _____	\$ _____	\$ _____
Total Feed Costs	_____	_____	_____	_____
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 cost 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 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.

Raising hogs is a major enterprise on most farms in Southern Minnesota. Table 11 below summarizes the results of the hog enterprise analysis.

TABLE 11 - FEED COSTS AND RETURNS FROM HOGS - 1966

Items	Your Farm	Average of	10 Farms	9 Farms
		19 Farms Raising Hogs	Highest In Returns Above Feed	Lowest In Returns Above Feed
Lbs. Feed Per Cwt. Hogs Produced				
Corn	_____	250	278	219
Small Grain	_____	49	54	43
Commercial Feeds	_____	120	63	183
Total Concentrates*	_____	419	395	445
Forages	_____	11	6	16
Feed Cost Per Cwt. Hogs Produced				
Concentrates and Forages	_____	12.62	11.07	14.32
Pasture	_____			
Total Feed Costs	_____	12.62	11.07	14.32
Net Inc.-Dec. In Value Per Cwt.	_____	21.93	22.85	20.91
Returns Over Feed Costs Per Cwt.	_____	9.31	11.78	6.59
Return For \$100 of Feed	_____	173.77	206.41	146.02
Price Received Per Cwt.	_____	23.48	23.75	23.16
Number of Litters Farrowed	_____	38	36	40
Number of Pigs Born Per Litter**	_____	9.7	9.6	9.7
Number of Pigs Weaned Per Litter	_____	7.9	8.0	7.7
POUNDS OF HOGS PRODUCED	_____	69,819	69,508	70,164

* Concentrates refer to the total of corn, small grain, and commercial feeds fed
 ** From records with accurate litter information only.

Operators producing less than 10,000 pounds of pork are omitted from hog averages. Questionable records were also omitted, including those who produced hogs for only a portion of the year.

DAIRY CATTLE

The quantity of feed consumed, value of feeds and returns from dairy cattle are presented in Tables 12, 13 and 14. Some of the important factors that affected the return over feed were:

1. Rate of production (pounds of milk and 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 12 - FACTORS OF COST AND RETURNS FROM DAIRY COWS - 1966

Items	Your Farm	Average of 28 Farms	8 Farms	8 Farms
			Highest In Returns Above Feed	Lowest In Return Above Feed
Pounds of Butterfat Per Cow	_____	355	433	258
Pounds Of Milk Per Cow	_____	9820	11596	7267
Percent of Butterfat in Milk	_____	3.6	3.7	3.5
Price Per Pound of Butterfat Sold	_____	107.0	106.1	107.4
Price Per Hundred Pounds Milk Sold	_____	3.87	3.96	3.80
Feed Per Cow - Pounds				
Corn	_____	2129	2150	1483
Small Grain	_____	1310	1368	1471
Commercial Feeds	_____	885	1537	686
Legume Hay	_____	6309	6021	5106
Other Hay and Fodder	_____	47		96
Total Concentrates	_____	4324	5055	3640
Total Dry Roughages	_____	6356	6021	5202
Total Silage	_____	12025	13307	13345
Feed Cost Per Cow				
Concentrates*	_____	107.65	132.85	83.88
Roughages	_____	108.24	118.62	96.76
Pasture	_____	7.85	4.66	10.73
Total Feed Cost	_____	\$223.74	256.13	191.37
Value of Produce Per Cow				
Butterfat Sales	_____	367.69	444.34	268.11
Dairy Products Used in Home	_____	4.76	4.56	5.24
Milk Fed To Livestock	_____	6.94	9.44	3.20
Net Inc. in Value of Cows	_____	4.10	8.13	8.18-
Total Value Produced	_____	\$383.49	466.77	268.37
Returns Over Feed Cost Per Cow	_____	159.75	210.64	77.00
Returns for \$100 of Feed	_____	\$171.30	182.20	140.20
Feed Cost Per Pound of Butterfat	_____	63.0	59.1	74.3
Number of Cows	_____	24.2	28.1	20.8

*Concentrates refer to total of corn, small grain and commercial feed fed.

TABLE 13 - FEED COSTS AND RETURNS FROM OTHER DAIRY CATTLE - 1966

Items	Your Farm	Average of 28 Farms	8 Farms	8 Farms
			Highest In Returns Above Feed	Lowest In Returns Above Feed
Feed Per Head Lbs.				
Concentrates*	_____	1073	1550	711
Hay and Fodder	_____	2830	2677	2160
Silage	_____	4363	5398	4986
Milk	_____	145	177	83
Feed Cost Per Head				
Concentrates*	_____	27.16	38.22	16.28
Roughages	_____	42.65	47.07	37.71
Milk	_____	5.29	6.54	3.07
Pasture	_____	3.46	3.49	3.81
Total Feed Costs Per Head	_____	78.56	95.32	60.87
Net Inc.-Dec. In Value	_____	106.20	119.44	75.43
Returns Over Feed Cost Per Head	_____	27.64	24.12	14.56
Returns For \$100 of Feed	_____	135.18	125.30	\$123.92
Number of Head	_____	31.5	40.6	21.7

TABLE 14 - FEED COSTS AND RETURNS FROM ALL DAIRY CATTLE - 1966

Items	Your Farm	Average of 28 Farms	Highest In	Lowest In
			Returns Above Feed 8 Farms	Returns Above Feed 8 Farms
Feed Per Cow - Lbs.				
Concentrates*	_____	5721	7294	4381
Hay and Fodder	_____	10041	9888	7456
Silage	_____	17705	21103	18547
Total Feed Costs Per Cow	_____	326.00	\$393.79	\$254.86
Value of Products Per Cow				
Dairy Products	_____	379.40	458.33	276.55
Net Inc.-Dec. In Value	_____	142.35	180.94	70.50
Total Value Produced	_____	\$521.75	\$639.27	\$347.05
Returns Over Feed Cost Per Cow	_____	\$195.75	245.48	92.19
Returns Per \$100 Feed Cost	_____	\$160.05	162.34	136.17
Animal Units of Cattle	_____	39.9	48.4	31.7

*Concentrates refer to total of corn, small grain, and commercial feed fed.
Table 13 - Other Dairy Concentrates is erroneous. Table 14 is correct.

TABLE 15 BEEF BREEDING CATTLE

Items	Your Farm	Average of 6 Farms
Feeds Per Animal Unit Lbs.		
Concentrates*	_____	452
Legume	_____	2,381
Silage	_____	4,618
Other Hay	_____	493
Feed Cost Per Animal Unit		
Concentrates*	_____	9.72
Roughages	_____	43.73
Pasture	_____	13.94
Total Feed Costs	_____	65.39
Net Increase in Value of Animals	_____	72.14
Returns Above Feed Cost Per Animal Unit	_____	6.75
Returns for \$100 of Feed	_____	110.35
Number of Cows and Bulls	_____	32.2
Number of Animal Units	_____	29.0
Pounds of Beef Produced	_____	8,155

TABLE 15 - FEED COSTS AND RETURNS FROM FEEDER CATTLE - 1966

Items	Your Farm	Average of 13 Farms	7 Farms Highest In Returns Above Feed	6 Farms Lowest In Returns Above Feed
Feeds Per Cwt Beef Produced Lbs.				
Corn	_____	562	514	666
Small Grain	_____	37	40	29
Commercial Feeds	_____	47	40	63
Legume Hay	_____	220	206	251
Other Hay and Fodder	_____	21	31	1
Total Concentrates*	_____	646	594	758
Total Hay and Fodder	_____	241	237	252
Silage	_____	675	594	851
Feed Cost Per Cwt. Beef Prod.				
Concentrates*	_____	16.33	14.80	\$19.60
Roughages	_____	4.50	4.07	5.40
Pasture	_____	.07	.10	
Total Feed Costs	_____	20.90	18.97	\$25.00
Net Increase In Value of An.	_____	25.70	25.74	25.63
Returns Above Feed Cost Cwt. Beef Prod.	_____	4.80	6.77	.63
Returns For \$100 of Feed	_____	123.01	\$135.62	\$102.50
Price Paid Cwt. Beef Bought	_____	19.64	21.90	17.00
Price Received For Beef Sold	_____	21.74	24.09	19.00
Number of Animal Units	_____	56.4	68.3	42.4
Pounds of Beef Produced	_____	33,742	42,775	23,204

Not enough records were submitted to prepare averages for the farm flock or feeder lambs. Tables are included so individual farmers may insert their own figures.

TABLE 16 - FEED COSTS AND RETURNS FROM FARM FLOCK OF SHEEP - 1966

Item	Your Farm
Feeds Per Ewe lbs.	
Concentrates	_____
Legume Hay	_____
Other Hay	_____
Silage	_____
Feed Cost Per Ewe	
Concentrates	_____
Roughages	_____
Pasture	_____
Total Feed Costs	_____
Value of Produce Per Head	
Wool	_____
Net Inc. In Value of Animals	_____
Total Value Produced	_____
Returns Above Feed Cost Per Head	_____
Returns For \$100 of Feed	_____
Price Per Cwt. Lamb and Mutton Sold	_____
Price Per lb. Wool Sold	_____
Pounds of Wool Per Sheep	_____
Number of Ewes Kept for Lambing	_____
Per Cent Lamb Crop	_____
Per Cent Death Loss	_____
Average Number of Ewes	_____
<hr/>	
Item	Your Farm
Feed per cwt lambs produced, lbs.	_____
Concentrates	_____
Legume Hay	_____
Other Hay	_____
Fodder and Stover	_____
Silage	_____
Feed cost per cwt. Lambs produced	_____
Net increases in value per cwt. produced	_____
Return above feed cost per cwt. produced	_____
Returns for \$100 of Feed	_____

Not enough records were submitted to provide averages for the chicken enterprise.

TABLE 17 - FEED COSTS AND RETURNS FROM CHICKENS - 1966

Item	Your Farm
Feed -Per Hen- lbs.	
Grain	_____
Commercial Feeds	_____
Total Concentrates	_____
Total Feed Costs Per Hen	_____
Value of Produce Per Hen	
Eggs sold and Used	_____
Inc-Dec. In Value of Flock	_____
Total Value Produced	_____
Returns Over Feed Cost Per Hen	_____
Returns For \$100 of Feed	_____
Price Per Dozen Eggs Sold - Cents	_____
Eggs Laid Per Hen	_____
Average Number of Hens	_____
Per Cent Death Loss	_____

Table 18. Summary of Miscellaneous Items by Years

	Average 1953-54	Average 1955-59	Average 1960-64	1963	1964	1965	1966
Acres In Farm							
Small grains	91.6	56.8	69.4	66.4	56.6	42.6	49.1
Cultivated Crops	65.6	114.8	129.0	98.2	117.6	110.4	116.7
Tillable land in hay	31.6	31.7	36.2	37.9	44.0	35.2	39.5
Tillable land in pasture	9.7	11.6	9.1	10.5	7.5	8.6	4.8
Soil Bank	--	1.8	15.0	11.8	10.3	20.3	26.7
Tillable land not cropped	2.7	1.3	1.1	1.1	.5	2.2	2.8
Total tillable land	<u>201.2</u>	<u>218.0</u>	<u>259.8</u>	<u>225.9</u>	<u>236.5</u>	<u>219.3</u>	<u>239.6</u>
Wild hay & non-till. past	31.8	26.6	32.5	34.2	37.1	34.5	34.2
Other non-tillable land	31.4	33.6	29.4	31.0	35.8	36.6	42.5
Total acres in farm	<u>264.4</u>	<u>278.2</u>	<u>321.7</u>	<u>291.1</u>	<u>309.4</u>	<u>290.4</u>	<u>316.3</u>
Yields per acre							
Flax, bu.	10.0	10.4	11.8	12.5	12.5	16.2	8.7
Barley, Bu.	27.0	35.4	40.1	44.9	48.8	66.9	38.0
Wheat, bu.	13.8	24.0	24.3	26.6	19.6	21.9	20.5
Oats, bu.	34.6	44.2	52.8	55.8	44.6	60.1	42.9
Corn grain, bu.	46.0	50.3	52.8	65.0	36.7	48.8	71.1
Soybeans, bu.	20.1	19.2	19.2	24.8	13.1	14.2	22.3
Corn silage, tons	8.2	9.3	9.9	10.2	7.5	7.4	9.8
Alfalfa hay, tons	2.6	2.6	2.7	3.4	2.4	2.9	2.6
Measures of farm org. & management:							
Percent of land in high return crops	47.8	56.2	56.5	55.3	54.9	56.9	58.6
Prod. L. S. Units per 100A	19.0	23.1	26.8	29.5	32.1	24.8	24.5
Size of bus. work units	342	384	507	513	545	460	442
Work units per worker	230	255	326	342	341	329	313
Exp. per work unit	\$9.94	\$11.86	\$10.99	\$10.47	\$9.86	\$10.59	12.26
Return above feed cost per:							
Dairy cow	\$60.33	\$108.62	\$144.94	\$124.88	\$151.81	\$98.72	\$159.75
An. unit in beef breeding herd	-10.66	49.83	19.27	23.43	-10.97	8.66	6.75
100 lbs. feeder cattle prod.	-3.14	3.93	3.25	-3.06	1.62	6.02	4.80
100 lbs. hogs produced	8.12	4.30	4.83	3.55	3.15	12.06	9.31
Hen	1.00	1.02	.94	.72	.57	.60	2.67
Feed cost per:							
Dairy cow	\$127.42	\$138.27	\$173.73	\$175.67	\$196.37	\$187.22	223.74
An unit in beef breeding herd	76.89	75.41	77.14	98.99	92.15	88.06	65.39
100 lbs. feed cattle produced	19.92	18.77	17.47	20.59	17.19	17.83	20.90
100 lbs. hogs produced	13.34	10.81	10.68	10.90	11.82	12.50	12.62
Hen	4.20	3.62	3.31	3.43	3.16	3.28	3.36

Table 19. Summary of Miscellaneous Items by Years (Continued)

	Average 1953-54	Average 1955-59	Average 1960-64	1963	1964	1965	1966	
Misc. Livestock information								
No. dairy cows	10.8	16.3	12.5	15.0	17.7	14.3	24.2	13.8
Lbs. beef produced	*	*	13297	15067	12952	9822	33,742	8952
Litter of pigs	8.5	9.9	15.7	12.7	16.2	14.9	38	14.7
Lbs. hogs produced	13852	22931	29804	23261	27436	25435	69,819	27073
Number of hens	176	284	283	229	343	259	1,58	124
Lbs. butterfat per cow	256	296	358	354	388	316	355	
No. pigs weaned/litter	7.0	6.4	7.0	7.5	7.7	7.6	7.9	
Eggs per hen	174	186	197	206	200	194	218	
Price received per:								
Lb. butterfat (cts.)	*	*	89.9	87.7	91.6	91.0	1.07	
100 lbs. fat cattle	\$19.23	\$20.82	\$21.95	\$20.52	\$20.07	\$21.90	21.74	
100 lbs. hogs	21.30	16.25	15.93	15.27	15.33	21.67	23.48	
Dozen eggs (cts)	35.5	29.3	27.2	26.8	24.9	24.9	33.7	
Price of feed:								
Corn, bu.	\$1.32	\$1.11	\$.99	\$1.05	\$1.06	\$1.14	1.25	
Oats, bu.	.70	.59	.61	.62	.63	.63	.64	
Barley, bu.	1.06	.92	.91	.84	.90	.98	1.05	
Alfalfa hay, ton	17.25	18.65	19.30	18.50	20.00	23.00	20.00	
Timothy hay, ton	9.95	11.10	11.15	10.70	11.60	13.00	14.00	
Corn silage, ton	5.80	6.10	6.55	6.25	6.75	7.75	7.00	
Soybean meal, cwt.	4.10	3.75	4.35	4.60	4.60	4.60	5.20	

*Information not available.

Table 20. Summary of Farm Earnings by Years

	Average 1953-54	Average 1955-59	Average 1960-64	1962	1963	1964	1965	1966
Number of farms	49	30	40	43	45	46	62	49
FARM RECEIPTS								
Dairy Cattle	\$750	\$760	\$1185	\$ 997	\$ 1367	\$ 1487	\$ 1236	1769
Dairy Products	2122	2497	4010	3412	4621	6193	4205	5457
Beef cattle	1620	6027	6065	6789	6301	5401	4076	4659
Hogs	2950	2290	4886	5452	3547	4346	5081	6156
Sheep and wool	167	103	385	313	238	171	99	187
Horses	7	4	-	-	-	-	-	-
Poultry	155	81	399	76	1579	83	79	51
Eggs	846	926	1677	1394	1361	1896	1151	747
Corn	816	1976	2353	2511	1774	936	682	1470
Small grain	1578	1097	1562	1883	1283	689	671	649
Other crops	474	1242	1760	1931	1605	1407	2537	3163
Machinery & equip. sold	226	206	350	487	336	309	242	792
Income from work off farm	397	312	429	414	475	339	505	356
Miscellaneous	172	197	465	856	348	416	375	430
Total farm sales	\$12280	\$18674	\$25459	\$26515	\$24835	\$23673	\$20939	\$25886
Increase in farm capital	952	1738	2305	2448	3025	537	4252	5563
Family living from farm	292	231	301	295	306	302	274	330
Total farm receipts	\$13524	\$20643	\$28065	\$29258	\$28166	\$24512	\$25465	\$31779
FARM EXPENSES								
Dairy cattle bought	\$ 177	\$ 200	\$ 231	\$ 239	\$ 139	\$ 399	\$ 317	408
Beef cattle bought	592	2769	3375	3922	3493	2429	1878	2624
Hogs bought	182	1128	540	607	295	293	183	152
Sheep bought	37	148	97	49	47	-	15	95
Horses bought	4	4	-	2	-	-	7	-
Poultry bought	112	128	344	282	461	540	274	82
Misc. livestock exp.	189	337	594	612	658	621	511	574
Feed bought	1500	2854	4649	4701	5655	4385	4337	4200
Fertilizers	300	518	800	795	669	890	688	448
Other crop expenses	409	597	847	953	796	841	904	1482
Custom work hired	421	541	737	636	859	850	688	741
Gas, oil, grease bought	800	891	1077	1164	982	988	980	1038
Rep. for mechanical power	302	426	594	624	573	593	586	681
Rep. & upkeep of real est.	168	160	268	321	271	323	183	275
Rep. of crop machinery	272	346	446	502	391	384	418	424
Rep. of livestock equip.	88	99	128	129	127	149	106	174
Wages of hired labor	442	524	621	799	502	497	391	435
Electricity expense	128	177	265	255	257	298	257	285
Real est. & pers. prop. tax	483	666	1016	983	946	1046	935	922
General farm exp.	164	208	296	304	287	346	293	363
Total cash operating exp.	\$6770	\$12721	\$16925	\$17879	\$17408	\$15608	\$13751	\$15403
Cap. purch.-mech. power	644	703	669	939	542	765	976	935
Cap. Purch.-cr. & gen. mach.	890	997	1138	1328	999	999	1212	1885
Cap. purch.-lvstk. equip.	130	344	494	476	495	708	335	868
Cap. purch.-bldg. & fencing	492	590	1106	989	1479	892	380	1739
Total farm purchases	\$8926	\$15355	\$20332	\$21611	\$20923	\$19206	\$16854	\$20830
Decrease in farm capital	-	-	-	-	-	-	-	-
Interest on farm capital	1814	2539	3215	3238	2912	3147	2947	3306
Unpaid family labor	295	321	482	341	604	738	501	489
Board for hired labor	80	111	81	147	65	57	36	68
Total farm exp.	\$11115	\$18326	\$24110	\$25337	\$24504	\$23148	\$20338	\$24693
Labor earnings	2409	2317	3955	3921	3662	1364	5127	7086
Net cash income	3354	3319	5127	4904	3912	4467	4085	5056