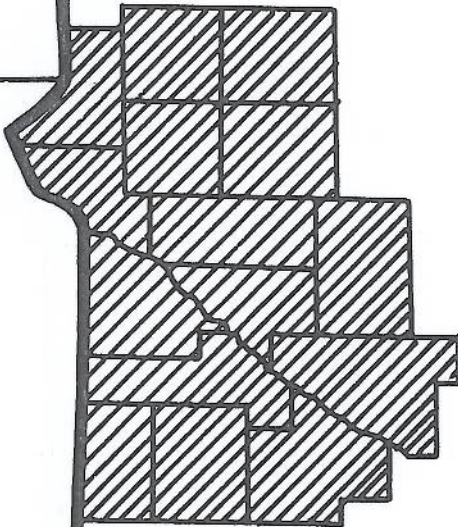


1966 annual report

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



REPORT NUMBER 288
Department of Agricultural Economics
Institute of Agriculture
St. Paul, Minnesota 55101
April 1967

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

Edward Hartog and T. R. Nodland

INDEX

Introduction.....	1
Schools Participating.....	2
Farm Inventories.....	2
Farm Earnings.....	2
Summary of Farm Inventories.....	3
Summary of Farm Earnings (Cash Statement).....	4
Summary of Farm Earnings (Enterprise Statement).....	5
Household and Personal Expense and Receipts.....	6
Net Worth.....	7
Summary of Farm Earnings on Tenure Basis.....	8
Range in Earnings.....	9
Explanation of Work Units.....	10
Power and Machinery Expense.....	10
Measures of Farm Organization and Management Efficiency.....	11
Thermometer Chart.....	12
Distribution of Acres and Crop Yields.....	13
Total Feed Costs and Returns from Livestock Enterprises.....	14
Hogs.....	15
Dairy Cattle.....	16
Other Dairy Cattle.....	17
Beef Cattle.....	18
Sheep.....	19
Chickens.....	20
Summary of Miscellaneous Items by Years.....	21
Summary of Farm Earnings by Years.....	23

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 10 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 minue 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		Average of 24 Farms	
	Your Farm			
	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		

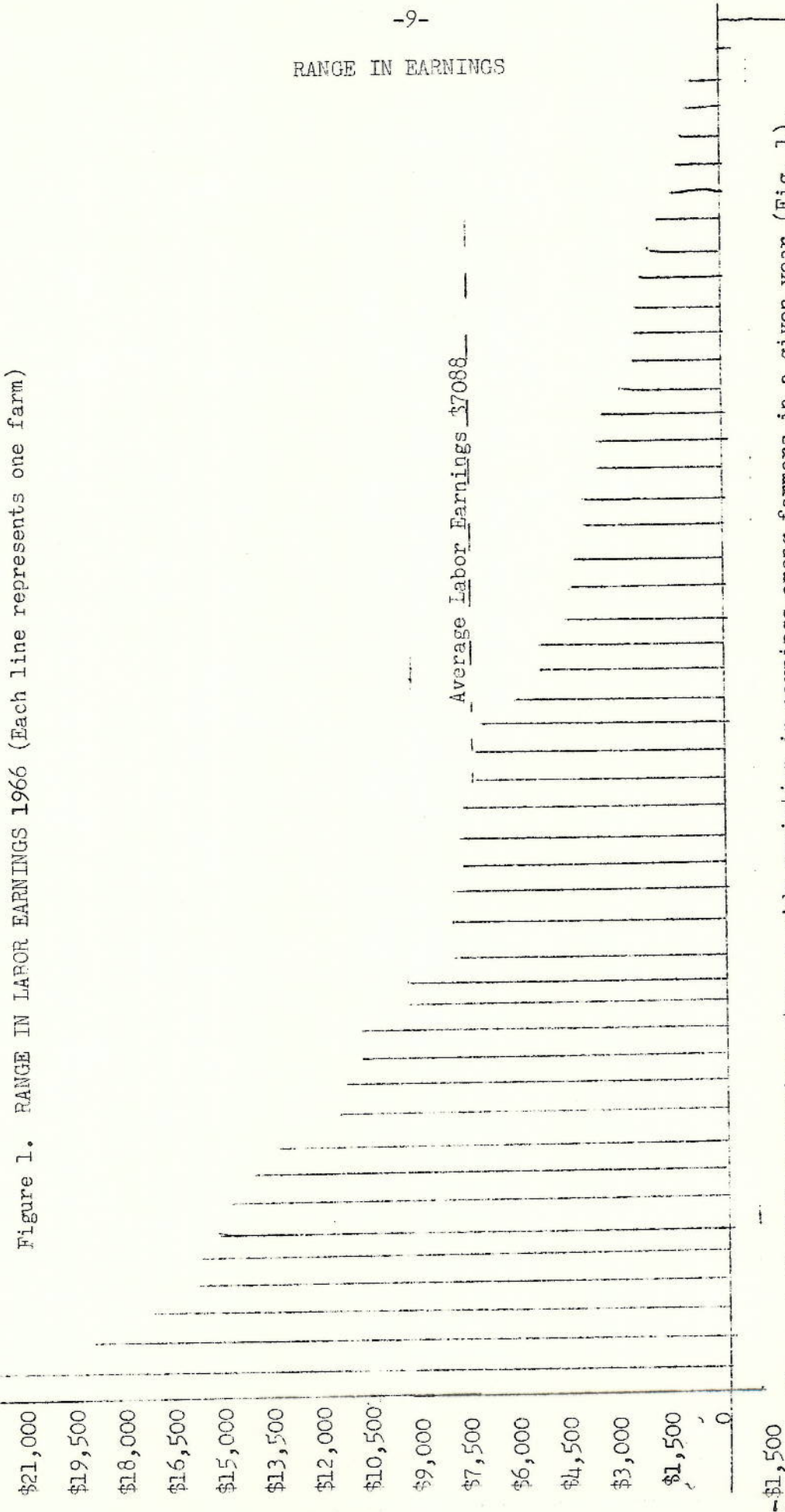
Items	Renter Average		Average of 7 Farms	
	Your Farm			
	Jan. 1 -	Dec. 31	Jan. 1 -	Dec. 31
Total Farm Capital	\$	\$	\$25,265	\$33,361
Auto - Personal Share			645	829
Dwelling				
Other Personal Assets			3,939	4,326
TOTAL ASSETS			\$29,849	\$38,516
Real Estate Mortgages				
Chattel Mortgages			\$ 8,216	\$ 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.

4

4

30

50

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	116	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.

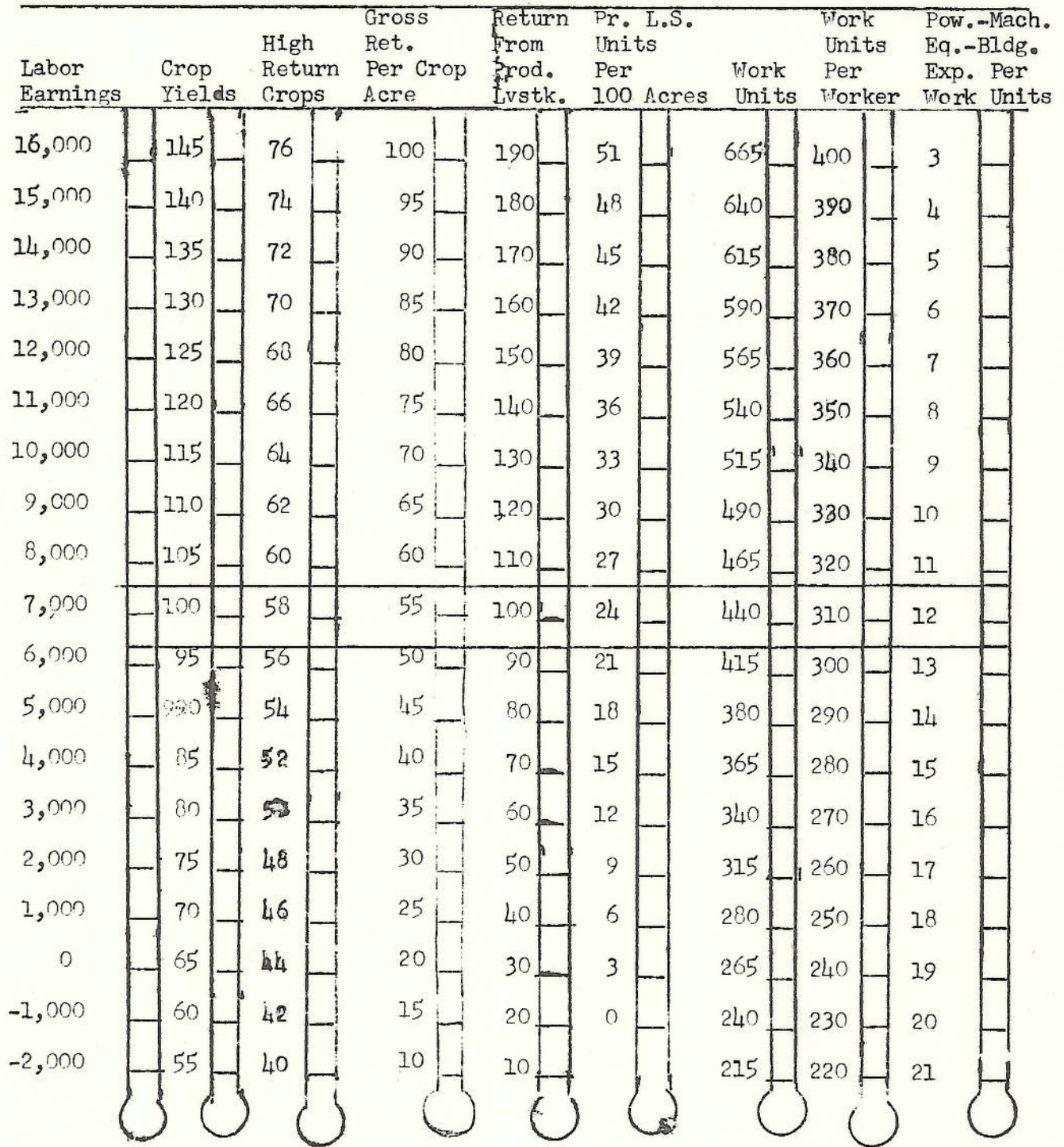


TABLE 9 - DISTRIBUTION OF ACRES AND YIELD - 1966

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		10		3.0		
Other Legume Pasture		2		.2		
Other Tillable Pasture		4		1.6		
Total Tillable Pasture				4.8		
Diverted Acres	A	33		26.7		37.02
Tillable Land Idle		7		2.8		
TOTAL TILLABLE LAND				239.6		
Wild Hay Ton		16		3.4		1.0
Non-Tillable Pasture		32		30.8		
Timber		15		9.9		
Roads and Waste		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 19 Farms Raising Hogs	10 Farms Highest In Returns Above Feed	9 Farms 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 Highest In Returns Above Feed	8 Farms 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	8.43	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 Highest In Returns Above Feed	8 Farms 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 Returns Above Feed 8 Farms	Lowest In 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

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

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	_____

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
Food -Per Hen- lbs.	
Grain	_____
Commercial Feeds	_____
Total Concentrates	_____
Total Food 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	201.2	218.0	259.8	225.9	236.5	219.3	239.6
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	264.4	278.2	321.7	291.1	309.4	290.4	316.3
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
Lbs. beef produced	*	*	13297	15067	12952	9822	33.742
Litter of pigs	8.5	9.9	15.7	12.7	16.2	14.9	38
Lbs. hogs produced	13852	22931	29804	23261	27436	25435	69.819
Number of hens	176	284	283	229	343	259	1458
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	628	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	1016	935	922
General farm exp.	164	208	296	304	287	346	293	363
Total cash operating exp.	\$6770	\$12721	\$16925	\$17879	\$17408	\$15842	\$13951	\$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