Report No. 9

1964 Annual Report

FARM MANAGEMENT PROGRAM NORTHEASTERN MINNESOTA

Iron Range Resources and Rehabilitation Commission

In Cooperation with

Minnesota Department of Education
Vocational Division

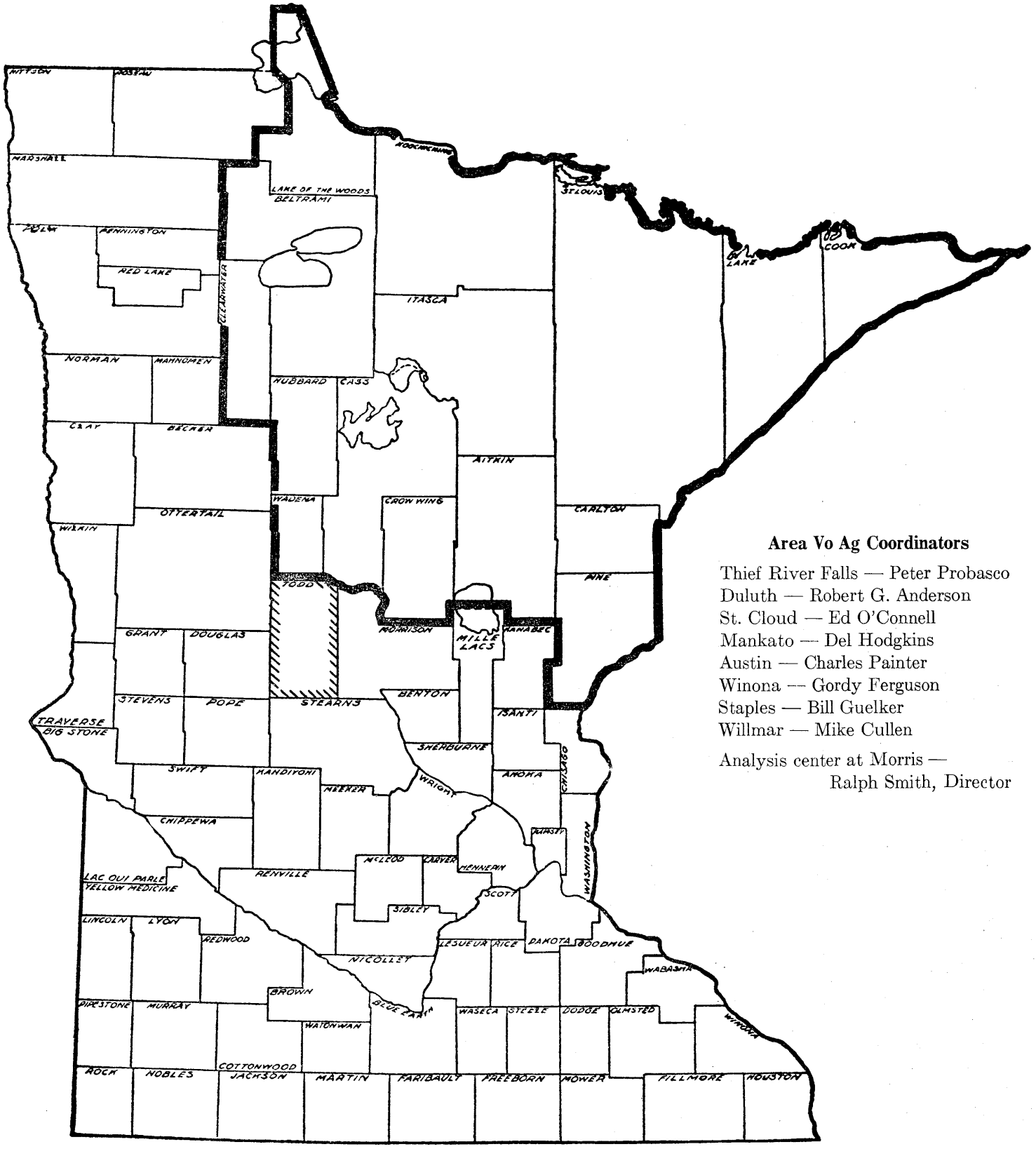
and

University of Minnesota
Institute of Agriculture

and

Area Vocational – Technical School
Duluth, Minnesota

June, 1965



Area Vo Ag Coordinators

Thief River Falls — Peter Probasco
Duluth — Robert G. Anderson
St. Cloud — Ed O'Connell
Mankato — Del Hodgkins
Austin — Charles Painter
Winona — Gordy Ferguson
Staples — Bill Guelker
Willmar — Mike Cullen

Analysis center at Morris —
Ralph Smith, Director

1964 REPORT OF THE VOCATIONAL AGRICULTURE FARM MANAGEMENT PROGRAM IN NORTHEASTERN MINNESOTA

ROBERT G. ANDERSON
Duluth Area Vocational School

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S T A T E O F M I N N E S O T A

DEPARTMENT OF
IRON RANGE RESOURCES AND REHABILITATION

60 State Office Building
Saint Paul 1, Minnesota

F O R E W O R D

This report is a summary of the ninth straight year of the Farm Management Program study for Northeastern Minnesota sponsored by Iron Range Resources and Rehabilitation in cooperation with the Minnesota Department of Education, Vocational Division, University of Minnesota, Institute of Agriculture, and the Area Vocational-Technical School of Duluth, Minnesota.

We hope that a study of this type will make it possible for people engaged in farming to improve their present programs and increase production and annual income. This study encourages the use of farm land for farm wood lot management for additional income through the sale of forest products.

The value of this service is in the continuous operation of the program over a period of years. This being the ninth straight year of the program makes the present study of great importance. It also emphasizes the need for the continuation of the project in future years. I have recommended additional funds for the continuation of the project for the next fiscal year and would encourage a summary of all previous studies at some future date.

We wish to commend Mr. Robert G. Anderson, Area Vocational Agriculture Coordinator, Area Vocational-Technical School, Duluth. His interest in this project, which demands extra time and effort on his part, in addition to his regular duties, has made this project possible. We hope the people in the area who will benefit from the studies appreciate his efforts.

The success of the project is possible because of the fine cooperation given to Mr. Anderson by the participating farmers, by the vocational agriculture instructors, instructors of veterans agriculture, county agents, and county rural development agents.

This report is offered with the best wishes of this department and with the hope that it will be of some help to farmers of the area toward a more efficient, successful, and prosperous agriculture program.

Copies of this report will be available to anyone interested at no charge.

A. M. DeYOANNES, Commissioner

INTRODUCTION

The Duluth Area Vocational Technical School, in cooperation with the University of Minnesota and the Vocational Division of the Minnesota State Department of Education, is charged with the responsibility for operation and maintenance of the Vocational Agriculture Farm Management Program in Northeastern Minnesota. This 1964 report represents the ninth annual report for the area.

The main purposes of the program of farm record analysis are: (1) To provide case study materials that can be used by farmers and farm groups in the study of farm management problems, (2) To aid individual farmers in the study of their farm business through analysis reports, (3) To provide information related to the adaptability and success of various farm enterprises in the area, (4) To provide a basis for determining the possibilities of encouraging or discouraging new agricultural enterprises for the area, (5) To secure information on farm management practices that tend to increase farm income, and (6) To provide a profile of agricultural production and income in the area.

The report and analysis of records were completed under the direction of Robert G. Anderson, Area Vo Ag Coordinator at the Duluth Area Vocational Technical School. Clerical assistance was provided by Mrs. Sandy Wrenfrow. Financial assistance has been obtained from Iron Range Resources and Rehabilitation Commission.

Directing locally in a supervisory capacity were: Dr. L. V. Rasmussen, Superintendent of Duluth Public Schools and Mr. Harold Hill, Director of the Duluth Area Vocational Technical School.

Cooperating agencies were represented by: Mr. G. R. Cochran, Mr. S. K. Wick and Mr. Robert Van Tries of the Vocational Division, State Department of Education, and Dr. Milo J. Peterson and Dr. Paul Marvin and Mr. Edgar Persons of the Agricultural Education Department of the University of Minnesota. Special acknowledgement is made of the excellent professional assistance rendered by Dr. Truman Nodland of the University Agricultural Economics Department.

We are thankful for and indebted to the Iron Range Resources and Rehabilitation for their interest and financial assistance in the farm management program. We wish to express also, our appreciation to Mr. Arthur Vieira, Printing Instructor, Duluth Public Schools, and to his class for their help in the publishing of this report.

Special thanks are also extended to William Guelker, Vo Ag Coordinator from Staples.

This report deals with farmers enrolled in adult programs of schools and county agent programs shown below. Sixty records were submitted for analysis with averages of fifty two farms included in this report.

1964 records for analysis were received from:

Robert Johnson, Vo Ag Instructor, Barnum
Dalton Seeling, Vo Ag Instructor, Bemidji
Donald Barstad, Vo Ag Instructor, Clarissa
Anthony Grebenc, Vo Ag Instructor, Cook
Lennen Naley, Vo Ag Instructor, Eagle Bend
Ed Takala, Vo Ag Instructor, Embarrass
Sulo Ojakangas, Vo Ag Instructor, Hibbing
Wilho Kemp, Vo Ag Instructor, Little Fork
Donald Larsen, Vo Ag Instructor, Meadowlands
Paul Jourdan, Vo Ag Instructor, Northome
Martin Klingenberg, Vo Ag Instructor, Park Rapids
Chris Back, Vo Ag Instructor, Staples
Erv Prachar, Vo Ag Instructor, Willow River

County Agents:

John Eix, Park Rapids (Hubbard)
Otto Lee, Baudette (Lake of the Woods)

The cooperating centers submitted records from 12 counties for analysis with some centers having participating farmers in more than one county. The number of farm records submitted from each county is shown below.

Becker	3	Koochiching	4
Beltrami	4	Lake of the Woods	3
Carlton	1	Pine	3
Cass	5	St. Louis	9
Hubbard	12	Todd	14
Itasca	1	Wadena	1
		TOTAL	60

Records this year, for the first time, were analyzed by electronic data processing with the work being done at Madison, Wisconsin. Many problems need to be resolved using these procedures, but the future looks bright for this electronic method.

The records submitted included farm inventories, cash receipts, and expenses. Also included were feed consumed by the various classes of livestock, family living from the farm, household and personal expenses and receipts, and the operators' liabilities and assets other than farm capital.

FARM INVENTORIES

The capital investment per farm varied from $5,698 to $120,566. The average investment for all farms included in this report and for the one-fourth high and the one-fourth low in operators' labor earnings is shown in Table I.

FARM EARNINGS

Operators' earnings are a measure of 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 and family labor.

There are two methods of computing labor earnings. Table II shows the earnings statement on a cash basis while Table III shows the earnings on an enterprise or accrual basis. The principal difference in the two statements is in the method of handling the net increase or decrease in 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.

FORESTRY INCOME

A portion of the farm income in Northeastern Minnesota is obtained from the sale of forestry products. Nine farms out of those represented in this report indicated some form of forestry income ranging from a low of $135 to a high of $2629 per farm. The average forestry income per farm (average of all 60 farms) amounted to $120, or 1.0% of the total farm income received. Forestry income is included as farm income in this report.

NON-FARM INCOME

Numerous Northeastern Minnesota farmers, in addition to their regular farm income are earning additional income in full or part time work not related to farming. Records submitted for this report cannot be considered as completely reliable in respect to non-farm income as this entry can be frequently omitted from the farm account books. However, 26 farms in this report showed outside income ranging from a low of $6 to a high of $5632 per farm involved. Non-farm income is not included in this report as farm labor earnings.

BEEF INCOME

There is much interest in beef production in Northeastern Minnesota and beef cattle numbers are on the increase. Eleven of the records submitted indicated beef as one of the major enterprises, or in some cases beef was the only livestock enterprise. Animal units of beef on these 11 farms averaged 31.7. The average return per cwt. of beef produced was $9.25. The range of earnings was (minus) -$4,277 through $5,283. It appears that there is a place for beef cattle in this area, especially for the maintaining of a beef cow herd to raise feeders for corn belt farmers. Good management in the saving of a large percentage of the beef calves is a very vital part of any success in the beef business.

TABLE I. SUMMARY OF FARM INVENTORIES, 1964

Items	Adjustments	Average 52 farms Jan. 1	Dec. 31
Size of farm (acres)		409	
Size of business (work units)		449	
Dairy cattle		$ 3,055	$ 3,018
Other dairy cattle		1,555	1,605
Beef cattle (incl. feeders)		3,597	4,121
Hogs		235	332
Sheep (incl. feeders)		98	107
Poultry (incl. turkeys)		57	55
TOTAL PRODUCTIVE LIVESTOCK		$ 8,597	$ 9,238
Crops (seed and feed)		$ 3,488	$ 3,199
Auto and truck (farm share)		856	850
Tractors and motors		1,663	1,576
Crop and general machinery		2,669	2,817
Livestock equipment		1,089	1,122
TOTAL MACHINERY AND EQUIPMENT		$ 6,277	$ 6,365
Land		$ 11,135	$ 11,135
Buildings - fences - etc.		5,192	5,324
TOTAL FARM CAPITAL		$ 34,689	$ 35,261

Items	13 most profitable Jan. 1	Dec. 31	13 least profitable Jan. 1	Dec. 31
Size of farm (acres)	503		446	
Size of business (work units)	621		477	
Dairy cattle	$ 3,958	$ 3,990	$ 3,184	$ 3,175
Other dairy cattle	2,158	2,463	1,270	1,128
Beef cattle (incl. feeders)	4,634	6,027	5,668	6,217
Hogs	87	115	142	210
Sheep (incl. feeders)			283	305
Poultry (incl. turkeys)	10	17	173	158
TOTAL PRODUCTIVE LIVESTOCK	$ 10,847	$ 12,612	$ 10,720	$ 11,193
Crops (seed and feed)	$ 6,041	$ 5,681	$ 3,354	$ 3,041
Auto and truck (farm share)	943	1,034	902	960
Tractors and motors	2,094	2,045	2,749	2,461
Crop and general machinery	3,755	4,218	3,192	3,461
Livestock equipment	1,831	1,794	1,030	1,158
TOTAL MACHINERY AND EQUIPMENT	$ 8,623	$ 9,091	$ 7,873	$ 8,040
Land	$ 18,610	$ 18,610	$ 10,255	$ 10,255
Buildings - fences - etc.	7,430	8,099	5,217	4,926
TOTAL FARM CAPITAL	$ 51,551	$ 54,093	$ 37,419	$ 37,455

TABLE II. SUMMARY OF FARM EARNINGS (CASH STATEMENT), 1964

Items	Average of 52 farms	13 most profitable	13 least profitable
FARM RECEIPTS			
Dairy cattle	$ 1,008	$ 1,184	$ 820
Dairy products	6,031	9,531	5,109
Beef cattle (incl. feeders)	943	1,116	1,449
Hogs	511	299	296
Sheep and wool	97		212
Poultry (incl. turkeys)	20		59
Eggs	40		86
Corn	28	33	50
Small grain	417	1,244	207
Other crops	846	2,352	190
Mach.&equip.sold&gas tax refund	157	166	161
Income from work off the farm	556	848	234
Miscellaneous farm income	591	679	456
(1) Total farm sales	$11,245	$17,452	$ 9,329
(2) Increase in farm capital	572	2,542	36
(3) Family living from the farm	358	376	395
(4) Total farm receipts(1)+(2)+(3)	$12,175	$20,370	$ 9,760
FARM EXPENSES			
Dairy cattle bought	$ 69	$ 98	$ 40
Beef cattle bought (incl. feeders)	165	65	519
Hogs bought	21	25	30
Sheep bought	3		11
Poultry bought (incl. turkeys)	13		40
Miscellaneous livestock expense	360	459	434
Feed bought	1,419	1,464	1,205
Fertilizer	467	858	565
Other crop expense	429	738	449
Custom work hired	606	759	588
Gas,oil,grease bo't(farm share)	679	790	731
Repairs for tractors, trucks, and autos (farm share)	385	549	349
Repair & upkeep of real estate	106	104	88
Repair & upkeep crop-gen. mach.	239	269	266
Repair & upkeep livestock equip.	85	131	102
Wages of hired labor	340	779	332
Electricity expense	216	289	180
Pers. prop. & real estate taxes	518	693	591
Telephone and general farm expense	186	267	172
(5) Total cash operating expense	$ 6,306	$ 8,337	$ 6,692
(6) Mech.power bought (farm share)	533	692	731
(7) Crop & gen. machinery bought	703	1,451	717
(8) Livestock equipment bought	208	200	389
(9) New real estate improvements	536	1,185	342
(10) Total farm purchases (5) to (9)	$ 8,286	$11,865	$ 8,871
(11) Decrease in farm capital	1,749	2,641	1,872
(12) Interest on farm capital	452	302	617
(13) Unpaid family labor	80	108	134
(14) Board furnished hired labor	$10,568	$14,916	$11,494
(15) Total farm expense (10) to (14)	$ 1,607	$ 5,454	$ 1,734-
(16) Labor earnings (4) - (15)			

TABLE III. SUMMARY OF FARM EXPENSES (ENTERPRISE STATEMENT), 1964

	Average of 52 farms	13 most profitable farms	13 least profitable farms
RETURNS AND NET INCREASES			
Dairy cattle	$ 6,235	$ 9,838	$ 5,253
Other dairy cattle	1,144	1,586	924
Beef breeding cattle	937	1,380	1,236
Feeder cattle	351	1,078	150
Hogs	607	311	343
Sheep	103		223
Turkeys	3	8	7
Chickens	55		111
ALL PRODUCTIVE LIVESTOCK	$ 9,435	$14,201	$ 8,247
Value of feed fed to livestock	5,986	7,522	6,621
Return over feed from livestock	$ 3,449	$ 6,679	$ 1,626
Crop, seed and feed	4,614	7,613	4,548
Income from labor off the farm	460	802	205
Agricultural conservation payments	466	563	419
Miscellaneous	124	116	37
(1) Total returns & net increases	$ 9,113	$15,773	$ 6,835
EXPENSES AND NET DECREASES			
Truck	$ 182	$ 163	$ 188
Auto (farm share)	457	561	572
Tractor	763	950	892
Electric and gas engines	281	349	344
Hired power	66	51	79
TOTAL POWER	$ 1,749	$ 2,074	$ 2,075
Crop and general machinery	865	1,436	858
Livestock equipment	398	495	517
Buildings, fencing & tiling	511	619	722
Misc. livestock expense	360	459	434
Labor	1,176	1,636	1,328
Real estate taxes	342	452	370
Personal property tax	176	240	222
Insurance	81	107	76
General farm expense	105	160	96
Interest on farm capital	1,749	2,641	1,872
(2) Total expenses & net decreases	$ 7,512	$10,319	$ 8,570
(3) LABOR EARNINGS (1) - (2)	$ 1,601	$ 5,454	$ 1,735-

* 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.

TABLE IV. CASH HOUSEHOLD AND PERSONAL EXPENSES FOR THOSE FARMS WHICH KEPT COMPLETE ACCOUNTS OF THESE EXPENSES, 1964

Items	Average of 34 farms	8 most profitable farms	7 least profitable farms
Number of persons-family	5.4	5.4	6.3
Number of adult equivalent-family	3.9	4.0	4.6
Food and meals bought	$ 769	$ 870	$ 852
Operating and supplies	153	208	166
Furnishings and equipment	139	290	146
Clothing and clothing materials	272	444	259
Personal care, personal spending	84	150	56
Education and recreation	193	294	174
Gifts and special events	79	109	61
Medical care and health insurance	328	404	380
Church and welfare	155	299	91
Pers. share truck and auto exp.	150	203	134
Oper. share upkeep on dwelling	24	37	35
Pers. share tel. and elect. exp.			
TOTAL CASH LIVING EXPENSES	$ 2,473	$ 3,449	$ 2,495
Pers. share new truck and auto	50	69	34
Taxes and other deductions	40	74	62
Life insurance	136	197	149
Other savings and investments	47	164	
TOTAL HOUSEHOLD & PERS.CASH EXP.	$ 2,747	$ 3,953	$ 2,740
Total family living from the farm	394	437	431
TOTAL CASH EXP. AND PERQUISITES	$ 3,140	$ 4,390	$ 3,171

TABLE V. NET WORTH STATEMENT FOR THOSE FARMERS WHO KEPT A COMPLETE RECORD OF ALL ASSETS AND LIABILITIES, 1964 (OPERATOR'S SHARE)

	Owners 46 farms		Part Owners 5 farms	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31
Total farm capital	$35,357	$36,017	$32,682	$32,535
Auto (personal share)	434	434	201	130
Dwelling	4,145	3,956	6,245	6,215
Other personal assets	3,236	3,364	4,616	4,702
TOTAL ASSETS	$43,171	$43,771	$43,745	$43,581
Real estate mortgages	$ 5,472	$ 5,890	$ 7,044	$ 6,932
Chattel mortgages	3,142	3,200	3,714	3,489
Notes	1,260	1,117	985	1,047
Accounts payable	678	623	739	1,312
TOTAL LIABILITIES	$10,552	$10,830	$12,482	$12,780
Farmer's net worth	$32,620	$32,941	$31,263	$30,801
GAIN IN NET WORTH		$ 322		$ 461-

* Includes any partners' share in the farm business.

(Continued)
TABLE V.

12 most profitable farms	Owners 12 farms Jan. 1	Dec. 31
Total farm capital	$ 54,678	$ 57,428
Auto (personal share)	648	636
Dwelling	6,379	6,571
Other personal assets	4,485	4,766
TOTAL ASSETS	$ 66,189	$ 69,402
Real estate mortgages	$ 7,720	$ 9,706
Chattel mortgages	3,483	3,057
Notes	1,633	1,225
Accounts payable	302	453
TOTAL LIABILITIES	$ 13,138	$ 14,442
Farmer's net worth	$ 53,051	$ 54,960
GAIN IN NET WORTH		$ 1,909

11 least profitable farms	Owners 11 farms Jan. 1	Dec. 31	Part Owners 11 farms Jan. 1	Dec. 31
Total farm capital	$ 37,869	$ 38,435	$ 34,948	$ 32,070
Auto (personal share)	374	428	260	147
Dwelling	2,959	2,834	7,330	7,470
Other personal assets	3,699	3,863	3,444	3,445
TOTAL ASSETS	$ 44,901	$ 45,559	$ 45,982	$ 43,132
Real estate mortgages	$ 4,805	$ 4,411	$ 8,804	$ 8,612
Chattel mortgages	3,606	4,777	5,350	4,739
Notes	711	767	383	460
Accounts payable	756	805	1,331	1,767
TOTAL LIABILITIES	$ 9,879	$ 10,759	$ 15,867	$ 15,578
Farmer's net worth	$ 35,022	$ 34,800	$ 30,115	$ 27,554
GAIN IN NET WORTH		$ 222-		$ 2,561-

* Includes any partners' share in the farm business

TABLE VI. SUMMARY OF FARM EARNINGS BY TENURE, 1964 (OPERATOR'S SHARE)

Items	Adjustments	47 Owners	5 Partners
FARM RECEIPTS			
Dairy and dual purpose cattle		$ 1,013	$ 921
Dairy products		6,034	6,003
Beef cattle (incl. feeders)		945	930
Hogs		392	1,634
Sheep and wool (incl. feeders)		106	6
Poultry (incl. turkeys)		22	
Eggs		44	
Corn		31	
Small grain		457	36
Other crops		925	100
Machinery & equipment sold		161	113
Income from work off the farm		576	360
Miscellaneous		622	296
(1) Total farm sales		$11,328	$10,399
(2) Increase in farm capital		647	
(3) Family living from the farm		355	382
(4) Total Farm Receipts (1)+(2)+(3)		$12,330	$10,781
FARM EXPENSES			
Dairy and dual purpose cattle bo't		$ 77	
Beef cattle bought (incl. feeders)		165	$ 160
Hogs bought		23	2
Sheep bought (incl. feeders)		3	
Poultry		15	
Misc. livestock expense		361	350
Feed		1,385	1,733
Fertilizers		465	490
Other crop expense		421	507
Custom work hired		591	749
Gas-oil-grease		675	712
Tractor-truck-auto repairs (f. share)		387	357
Real estate repairs		112	52
Crop & gen. machine repairs		230	333
Livestock equipment repairs		85	80
Wages of hired labor		368	74
Electricity expense (farm share)		214	238
Real estate & pers. property taxes		514	549
Cash rent		93	193
General farm expenses		186	179
Interest paid		484	624
TOTAL CASH OPERATING EXPENSES		$ 6,854	$ 7,380
Mechanical power bought (farm share)		555	333
Crop & general machinery bought		748	281
Livestock equipment bought		208	204
New real estate improvements		437	1,472
(5) Total farm purchases		$ 8,802	$ 9,670
(6) Decrease in farm capital			147-
(7) Interest on farm capital		1,277	1,007
(8) Unpaid family labor		421	755
(9) Board furnished hired labor		84	40
(10) Total Farm Expenses (5)+(6)+(7)+(8)+(9)		$10,584	$11,619
(11) Labor Earnings (4) - (10)		1,745	837-
(12) Ret. to Cap. & Fam. Labor (7)+(8)+(11)		3,443	924

* Includes any partner's share that may be in this classification.

(Continued)
TABLE VI.

Items	13 most profitable-13 Owners	13 least profitable-11 Owners	2 Partners*
FARM RECEIPTS			
Dairy and dual purpose cattle	$ 1,184	$ 744	$ 1,150
Dairy products	9,531	4,719	7,254
Beef cattle (incl. feeders)	1,116	1,712	
Hogs	299	253	533
Sheep and wool (incl. feeders)		248	15
Poultry (incl. feeders)		70	
Eggs		102	
Corn	33	59	
Small grain	1,244	229	90
Other crops	2,352	221	19
Machinery & equipment sold	166	174	91
Income from work off the farm	848	244	178
Miscellaneous	679	536	17
(1) Total farm sales	$ 17,451	$ 9,311	$ 9,345
(2) Increase in farm capital	2,542	566	
(3) Family living from the farm	375	430	206
(4) Total Farm Receipts (1)+(2)+(3)	$ 20,368	$10,307	$ 9,551
FARM EXPENSES			
Dairy and dual purpose cattle bo't	$ 98	$ 47	
Beef cattle bought (incl. feeders)	65	613	
Hogs bought	25	36	
Sheep bought (incl. feeders)		13	
Poultry		47	
Misc. livestock expense	459	440	400
Feed	1,464	1,231	783
Fertilizers	858	533	466
Other crop expense	738	441	494
Custom work hired	759	524	941
Gas-oil-grease	790	699	908
Tractor-truck-auto repairs (f. share)	549	349	351
Real estate repairs	104	101	17
Crop & gen. machine repairs	269	251	347
Livestock equipment repairs	131	107	76
Wages of hired labor	779	372	110
Electricity expense (farm share)	289	168	243
Real estate & pers. property taxes	693	587	614
Cash rent	193	64	150
General farm expenses	263	173	163
Interest paid	635	535	894
TOTAL CASH OPERATING EXPENSES	$ 9,160	$ 7,434	$ 6,957
Mechanical power bought (farm share)	692	864	
Crop & general machinery bought	1,451	848	
Livestock equipment bought	200	370	491
New real estate improvements	1,185	300	575
(5) Total Farm Purchases	$ 12,688	$ 9,816	$ 8,022
(6) Decrease in farm capital			2,878-
(7) Interest on farm capital	2,007	1,372	782
(8) Unpaid family labor	302	483	1,350
(9) Board furnished hired labor	108	151	40
(10) Total Farm Expenses (5)+(6)+(7)+(8)+(9)	$ 15,105	$11,822	$13,072
(11) Labor Earnings (4) - (10)	5,264	1,515-	3,522-
(12) Ret. to Cap. & Fam. Labor (7)+(8)+(11)	7,572	340	1,390-

* Includes any partner's share that may be in this classification

The return to capital and family labor represents the amount available to the operator for living expenses, payment on indebtedness, and savings.

RANGE IN EARNINGS

Every study of farm earnings shows a wide variation in earnings among farmers in a given year. The average operator's earnings of farmers ranking in the upper fourth of the range according to earnings was $5454 and of those in the lower fourth was $-1734. This is a range of $7188 between the average earnings of these two groups. Some of the causes for these differences in earnings, such as weather, may be beyond the control of the individual farmer. Other factors are within his control. The more important management factors affecting earnings are as follows: These factors vary from year to year in their relative influence on earnings. 1/

1. Crop yields
2. Choice of crops
3. Return from livestock
4. Amount of livestock
5. Size of business
6. Work units per worker
7. Control over expenses

Operator's Earnings:

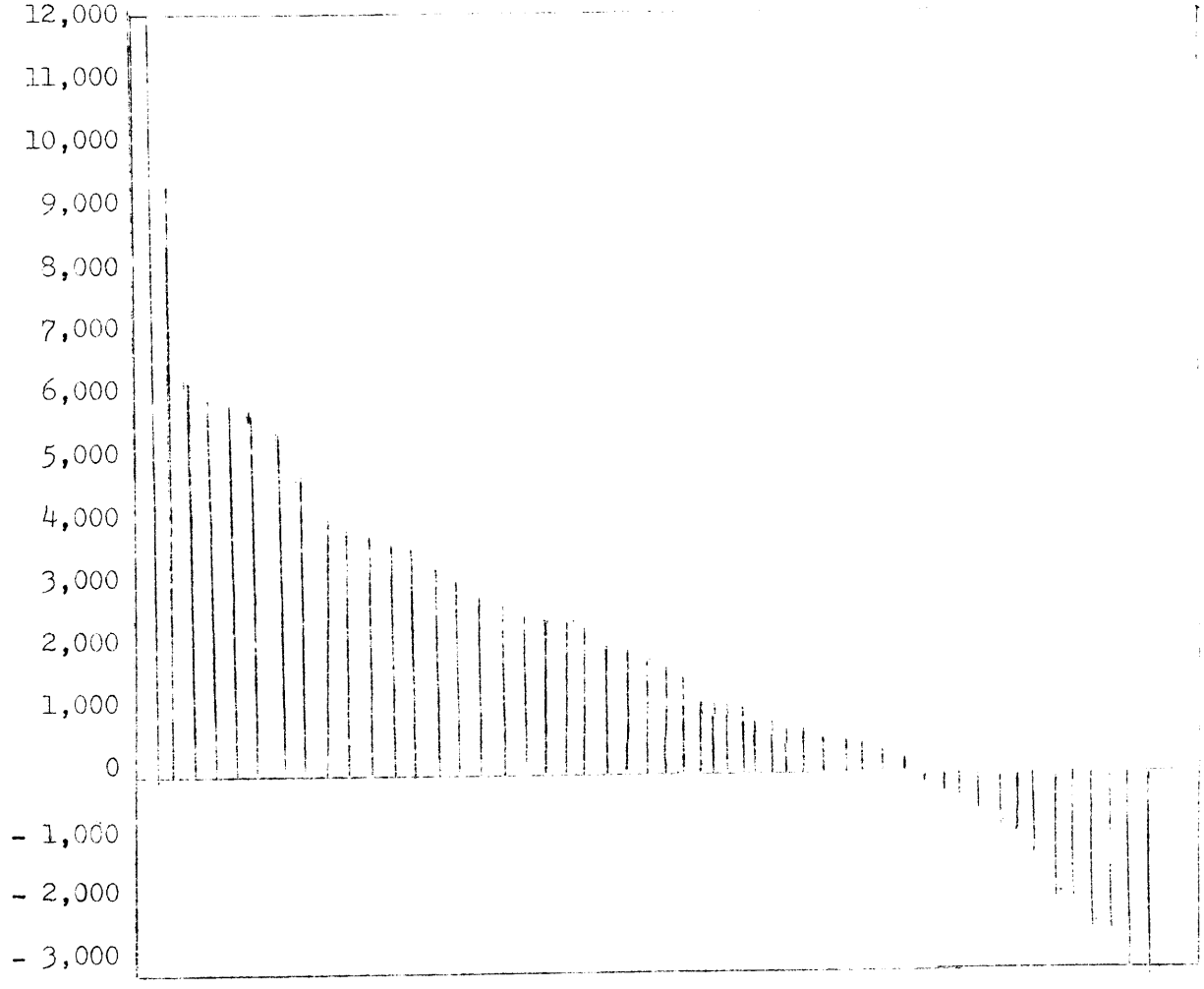

Fig. 1. Range in operator's earnings. Each line represents the earnings of one farmer.

1/ See Pond, G. A. "Why Farm Earnings Vary". Minn. Agri. Experimental Station, Duluth 386, June 1945.

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, or ten hours of work off the farm for pay. The number of work units for each class of livestock and each acre of crop are presented in Table VII below.

TABLE VII. NUMBER OF WORK UNITS FOR EACH CLASS OF LIVESTOCK AND CROP ACRE

Item	No. of Work Units
Dairy and dual purpose cows	10.0 per cow
Other dairy and dual purpose cattle	3.5 per animal unit*
Beef breeding herd	3.5 per animal unit*
Feeder Cattle	.25 per cwt.
Sheep - farm flock	1.5 per animal unit*
Sheep - feeders	.3 per cwt.
Hogs	.2 per cwt.
Turkeys	.5 per cwt.
Hens	20.0 per 100 hens
Canning peas	.5 per acre
Soybeans for grain	.5 per acre
Potatoes	4.0 per acre
Small grain	.5 per acre
Sugar beets	1.5 per acre
Sweet corn	.7 per acre
Corn, husked	.7 per acre
Corn, shredded	1.5 per acre
Corn silage	1.0 per acre
Corn, hogged	.4 per acre
Corn fodder	1.0 per acre
Silage, other than corn	1.0 per acre
Green chop	1.0 per acre
Alfalfa hay	.6 per acre
Soybean hay	.8 per acre
Other hay crops	.4 per acre
Pasture	.2 per acre

*Animal unit represents one dairy cow or bull, two other dairy cattle, 1¼ beef cows or bull, 1 feeder steer or heifer, 3 1/3 other beef cattle, 7 sheep, 14 lambs, 2½ hogs, 5 pigs, 50 hens, or 1,100 lbs. of turkeys produced.

TABLE VIII. MEASURES OF FARM ORGANIZATION AND MANAGEMENT EFFICIENCY, 1964

Measures used in chart on page 14	Average of 52 farms	13 most profitable farms	13 least profitable farms
Labor earnings	$1,607	$5,454	$1,734-
(1) Crop yields *	100	113	99
(2) Per cent tillable land in high return crops	43.1	43.8	45.5
Gross return per acre	28.21	32.60	27.33
(3) Return for $100 feed to productive livestock*	100	118	84
(4) Productive livestock units per 100 acres**	20.3		
(5) Size of business - work units	449	621	476
(6) Work units per worker	251.1	270.9	285.3
(7) Power, machinery, equipment & building expense per work unit	$ 7.94	$ 7.45	$ 8.76
Items Related to Some of the Above Measures:			
(3) Index of return for $100 feed from:			
Dairy cattle (see pp. 20 & 21)	100	113	85
Beef cattle - breeding herd (see p. 22)	100	127	71
Beef cattle - feeders (see p. 22)	106	128	524
Hogs (see pp. 18 & 19)	98	110	82
Sheep - farm flock (see p. 23)	100		125
(4) Number of animal units	54.0	71.5	64.1
(5) Work units on crop	146	221	129
Work units on productive livestock	297	400	347
(6) Power expense per work unit	$ 3.95	$ 3.34	$ 4.36
Crop machinery expense per work unit	$ 1.95	$ 2.31	$ 1.80
Livestock equip. expense per work unit	$ .90	$ .80	$ 1.08
Building & fence expense per work unit	$ 1.15	$ 1.00	$ 1.52

* Given as a percentage of the average.

** Acres in timber not pastured, roads, waste and farmstead were not included.

Using your figures from page 13, 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 dotted lines across the center of the page.

Labor earnings	Crop yields	High ret. crops	Return from productive livestock	Pr.L.S. units per 100 A.	Work units	Work units per worker	P.E.E. per W. U.
9077	190	79	199	38	1043	548	1.64
8247	180	75	188	36	977	515	2.34
7417	170	71	177	34	911	482	3.04
6587	160	67	166	32	845	449	3.74
5757	150	63	155	30	779	416	4.44
4927	140	59	144	28	713	383	5.14
4097	130	55	133	26	647	350	5.84
3267	120	51	122	24	581	317	6.54
2437	110	47	111	22	515	284	7.24
1607	100	43	100	20	449	251	7.94
777	90	39	89	18	383	218	8.64
- 53	80	35	78	16	317	185	9.34
- 883	70	31	67	14	251	152	10.04
-1713	60	27	56	12	185	119	10.74
-2543	50	23	45	10	119	86	11.44
-3373	40	19	34	8	53	53	12.14

TABLE IX. DISTRIBUTION OF ACRES AND YIELD, 1964

Items	Adjust-ments	Crop rating	Number Growing	Avg. acres of 52 farms	Average yield
Oats - and mixtures		C	41	24.6	39.7
Oats silage		B	4	2.5	4.2
Canning peas					
Wheat		C	6	4.0	22.9
Barley		C	4	3.4	23.3
Flax		C	5	3.9	8.6
TOTAL SMALL GRAIN AND PEAS				38.4	
Canning corn					
Corn grain and seed corn		B/D	31	9.9	44.7
Soybeans - grain		C	1	.3	40.6
Corn silage		B	29	18.6	6.1
Corn and cane fodder		D	2	.3	1.7
Other cultivated crops			7	6.3	282.5
TOTAL CULTIVATED CROPS				35.4	
Alfalfa hay		A	31	33.1	1.7
Other legumes and mixtures		B	39	56.8	1.2
Misc. hay and seed		D	18	9.7	70.6
TOTAL HAY				99.6	
Alfalfa Pasture		A	4	1.6	
Other legume pasture		B	12	9.7	
Other tillable pasture		D	19	13.4	
TOTAL TILLABLE PASTURE				24.7	
Government program		B	14	14.5	15.23
Tillable land idle		D	10	7.1	
TOTAL TILLABLE LAND				219.7	
Wild hay			19	8.0	
Non-tillable pasture			47	80.8	
Timber			42	65.5	
Roads and waste			48	29.5	
Farmstead			52	5.4	
TOTAL ACRES IN FARM				408.9	
Per cent of land tillable				53.7	
Per cent in high return crops				41.3	

* Some crops were grouped because acreages for each were less than one acre. Included are legumes for seed and timothy for seed and emergency hay crops.

(Continued)
TABLE IX. 13 most profitable farms

Items	Adjust-ments	Crop rating	Number Growing	Acres	Average yield
Oats - and mixtures		C	12	33.2	46.2
Oats silage		B	2	6.6	4.6
Canning peas					
Wheat		C	2	12.6	24.7
Barley		C	2	10.7	26.0
Flax		C	2	7.5	10.4
TOTAL SMALL GRAIN AND PEAS				70.6	
Canning corn					
Corn grain and seed corn		B/D	5	15.5	57.2
Soybeans - grain		C			
Corn silage		B	6	14.4	8.1
Corn and cane fodder		D	1	.2	6.0
Other cultivated crops			4	21.7	318.1
TOTAL CULTIVATED CROPS				51.8	
Alfalfa hay		A	6	34.7	1.8
Other legumes and mixtures		B	10	102.2	1.1
Misc. hay and seed		D	3	11.9	202.8
TOTAL HAY				148.8	
Alfalfa Pasture		A			
Other legume pasture		B	1	.4	
Other tillable pasture		D	3	7.9	
TOTAL TILLABLE PASTURE				8.3	
Government program		B	1	7.9	16.50
Tillable land idle		D	3	16.2	
TOTAL TILLABLE LAND				303.6	
Wild hay			6	5.5	
Non-tillable pasture			13	121.8	
Timber			11	36.0	
Roads and waste			12	31.0	
Farmstead			13	4.7	
TOTAL ACRES IN FARM				502.6	
Per cent of land tillable				60.4	
Per cent in high return crops				40.2	

(Continued)

TABLE IX. 13 least profitable farms

Items	Adjust-ments	Crop rating	Number Growing	Acres	Average yield
Oats - and mixtures		C	9	23.1	34.7
Oats silage		B	2	3.3	3.3
Canning peas					
Wheat		C	2	1.8	20.0
Barley		C	2	2.9	13.2
Flax		C	2	4.8	5.0
TOTAL SMALL GRAIN AND PEAS				35.9	
Canning corn					
Corn grain and seed corn		B/D	5	8.2	51.1
Soybeans - grain		C	1	1.2	40.6
Corn silage		B	9	27.3	15.5
Corn and cane fodder		D			
Other cultivated crops			1	.8	200.0
TOTAL CULTIVATED CROPS				37.5	
Alfalfa hay		A	9	43.8	1.6
Other legumes and mixtures		B	11	53.3	1.5
Misc. hay and seed		D	4	6.4	19.8
TOTAL HAY				103.5	
Alfalfa Pasture		A			
Other legume pasture		B	3	20.7	
Other tillable pasture		D	5	12.3	
TOTAL TILLABLE PASTURE				33.0	
Government program		B	4	11.0	20.31
Tillable land idle		D	2	6.7	
TOTAL TILLABLE LAND				227.6	
Wild hay			4	11.9	
Non-tillable pasture			12	67.1	
Timber			11	105.0	
Roads and waste			12	28.2	
Farmstead			13	6.3	
TOTAL ACRES IN FARM				446.1	
Per cent of land tillable				51.0	
Per cent in high return crops				45.2	

TOTAL FEED COSTS AND RETURNS FROM YOUR LIVESTOCK ENTERPRISES

The total "return over feed costs" for each class of livestock is shown in Table X. 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 p. 6. 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 X. TOTAL FEED COSTS AND RETURNS FROM YOUR LIVESTOCK ENTERPRISES, 1964

	Dairy or dual purpose cattle			Beef
	Cows	Other	All	Breeding
Total returns	_____	_____	_____	_____
Total feed cost	_____	_____	_____	_____
Total return over feed	_____	_____	_____	_____

	Hogs	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 between classes of livestock. Feed makes up approximately 45 per cent of the total costs of maintaining dairy cattle and poultry, 50 per cent for sheep, and 75 to 90 per cent for hogs, feeder cattle, and feeder lambs. Consequently, it is necessary to secure a relatively higher return over feed from dairy cattle and poultry than from the other livestock enterprises in order to be able to cover all the costs other than feed.

HOGS

The return over feed cost per cwt. of hogs produced varied from $2.74 for those farmers in the lower one-fourth in feeding efficiency to a return of $10.35 for those in the highest one-fourth. Responsible factors affecting return over feed were:

1. Quantity of feed required to produce 100 pounds of pork.
2. Price received.
3. Number of pigs born per litter
4. Number of pigs weaned per litter.

TABLE XI. FEED COSTS AND RETURNS FROM HOGS, 1964

Items Adjustments	Average of 10 farms	5 farms high in return above feed	5 farms low in return above feed
Feed per cwt. hogs produced - lbs.			
Corn	408	151	614
Small grain	104	158	72
Commercial feeds	61	78	50
TOTAL CONCENTRATES	573	387	736
Forage and miscellaneous	23	30	16
Feed cost per cwt. hogs produced:			
Concentrates (plus forage & misc.)	$13.99	$ 10.43	$ 17.37
Pasture	.11	.15	.17
TOTAL FEED COSTS	$14.10	$ 10.58	$ 17.54
Net increase in value per cwt. hogs produced	$20.46	$ 20.93	$ 20.28
RETURNS ABOVE FEED COST PER CWT. HOGS PRODUCED	$ 6.36	$ 10.35	$ 2.74
RETURN FOR $100 OF FEED	$145.11	$197.83	$115.62
Price received per cwt. hogs sold	$19.85	$ 22.21	$ 18.61
Number of litters farrowed	20	21	19
Number of pigs born per litter	8.9	9.7	8.0
Number of pigs weaned per litter	7.8	8.5	7.1
POUNDS OF HOGS PRODUCED	12,709	11,768	12,315

This table includes animals sold as feeder pigs. This accounts for the average price of $19.85 per cwt.

TABLE XII. FACTORS OF COST AND RETURNS FROM DAIRY COWS, 1964

Items	Adjustments	Average of 38 farms	10 farms highest ret. over feed cost	5 farms lowest ret. over feed cost
Pounds of butterfat per cow		360	402	308
Pounds of milk per cow		9,621	10,892	8,230
Per cent of butterfat in milk		3.7	3.7	3.7
Price per pound of butterfat sold		96.4	102.6	88.8
Price per hundred pounds milk sold		$ 2.79	$ 2.63	$ 3.14
Feed per cow - pounds:				
Corn		1,289	967	1,609
Small grain		1,089	1,448	631
Commercial feeds		1,059	1,274	682
Legume hay		3,065	2,757	3,860
Other hay		2,677	3,222	1,115
TOTAL CONCENTRATES		3,437	3,689	2,922
TOTAL DRY ROUGHAGE		5,742	5,979	4,975
TOTAL SILAGE		8,200	5,252	9,832
Feed cost per cow:				
Concentrates		$ 81.71	$ 84.00	$ 68.56
Roughages		74.50	66.97	76.02
Pasture		6.43	6.38	7.67
TOTAL FEED COSTS		$ 162.64	$157.35	$152.25
Value of produce per cow:				
Butterfat sales		$ 332.24	$401.51	$253.48
Dairy products used in home		5.04	5.98	4.62
Milk fed to livestock		7.31	3.89	10.67
Net increases in value of cows		2.23-	2.32	5.09-
TOTAL VALUE PRODUCED		$ 342.36	$413.70	$263.68
RETURN ABOVE FEED COST PER COW		$ 179.72	$256.35	$111.43
RETURNS FOR $100 OF FEED		$ 210.50	$262.90	$173.10
Feed cost per lb. of butterfat (¢)		45.2	39.1	49.4
NUMBER OF COWS		24.7	22.9	29.8

TABLE XIII. FEED COSTS AND RETURNS FROM OTHER DAIRY & DUAL PURPOSE CATTLE, 1964

Items	Adjustments	Average of 39 farms	10 farms highest ret.over feed cost	10 farms lowest ret.over feed cost
Feed per head - pounds:				
Concentrates		12	12	12
Hay and fodder		2541	2010	2893
Silage		6636	4138	6457
Whole milk		221	136	337
Feed cost per head:				
Concentrates		$ 6.37	$ 12.93	$ 6.37
Roughages		27.86	20.97	31.79
Milk		5.63	3.06	6.67
Pasture		3.21	4.22	3.12
TOTAL FEED COSTS PER HEAD		$ 43.07	$ 41.18	$ 47.95
Net increase in value of other cattle		$ 49.97	$ 68.01	$ 27.64
Returns above feed cost per head		$ 6.90	$ 26.83	$ 20.31-
Returns for $100 of feed		$116.02	$165.15	$ 57.64
Number of head of other cattle		29.7	29.0	$ 36.3

TABLE XIV. FEED COSTS & RETURNS FROM ALL DAIRY & DUAL PURPOSE CATTLE, 1964

Items	Adjustments	Average of 39 farms	10 farms highest ret.over feed cost	10 farms lowest ret.over feed cos
Food per animal unit - pounds:				
Concentrates		2473	2647	2108
Hay and fodder		5471	5209	5340
Silage		6964	4441	8420
TOTAL FEED COSTS PER ANIMAL UNIT		$137.10	$127.11	$132.24
Value of produce per animal unit:				
Dairy products		$211.28	$251.20	$151.44
Net increase in value of dairy cattle		36.79	54.12	20.09
TOTAL VALUE PRODUCED		$248.07	$305.32	$171.53
Returns over feed cost per unit		$110.97	$178.21	$ 39.29
Returns per $100 feed cost		$180.94	$240.20	$129.71
Animal units of cattle		38.8	37.4	42.9

TABLE XV. FEED COST AND RETURNS FROM BEEF CATTLE, 1964

Items	Adjustments	Average of 11 farms	6 farms highest in B.F. per cow	5 farms lowest in B.F. per cow
Beef Breeding Herd:				
Feeds per animal unit - pounds:				
Concentrates		253	359	53
Legume hay		1,341	1,455	1,124
Silage		4,275	3,388	5,937
Other hay		3,252	3,167	3,404
Feed cost per animal unit:				
Concentrates		$ 6.00	$ 7.81	$ 2.58
Roughages		50.19	45.83	58.31
Pasture		11.55	11.75	11.16
TOTAL FEED COSTS		$ 67.74	$ 65.39	$ 72.05
Net increase in value of animals		$ 55.95	$ 72.84	$ 23.97
Returns Above Feed Cost Per Animal Unit		$ 11.79-	$ 7.45	$ 48.08-
Returns for $100 of Feed		$ 82.57	$111.38	$ 33.27
Number of cows and bulls		82.8	97.8	64.8
Number of animal units in the herd		70.9	85.0	54.1
Pounds of beef produced		25,660	38,908	9,763

Feeding Cattle:	Average of 4 farms	2 farms	2 farms
Feeds per cwt. beef produced - lbs.			
Corn	28	[illegible]	148
Small grain	164	197	16
Commercial feeds	33	3	163
Legume hay	150	161	100
Other hay and fodder	281	224	532
Total Concentrates	255	200	327
Total Hay and Fodder	431	385	632
Silage	105		563
Feed cost per cwt. beef produced:			
Concentrates	$ 4.78	$ 3.74	$ 9.29
Roughages	4.09	3.48	6.76
Pasture	.64	.73	.24
TOTAL FEED COSTS	$ 9.51	$ 7.95	$ 16.29
Net increase in value of feeders	18.76	20.13	12.79
Returns Above Feed Cost Per Cwt. Beef Pro.	9.25	12.18	3.50-
Return for $100 of Feed	$197.15	$252.92	$ 78.57
Price paid cwt beef bought			
Price received for beef sold	$ 17.87	$ 19.19	$ 16.55
Number of animal units	31.7	51.3	12.2
Pounds of beef produced	21,447	34,828	8,067

TABLE XVI. FEED COSTS AND RETURNS FROM A FARM FLOCK OF SHEEP, 1964

Items	Adjustments	Average of 6 farms	3 highest	3 lowest
Feeds per ewe (lbs.):				
Concentrates		72	83	27
Legume hay		299	68	293
Other hay		282	773	228
Silage		384	68	511
Feed cost per ewe:				
Concentrates		$ 1.52	$ 1.56	$ .73
Roughages		6.26	6.65	6.43
Pasture		2.68	2.42	2.60
TOTAL FEED COSTS		$ 10.46	$ 10.63	$ 9.76
Value of produce per head:				
Wool		$ 5.66	$ 4.55	$ 6.35
Net increase in value of sheep		8.46	15.32	4.52
TOTAL VALUE PRODUCED		$ 14.12	$ 19.87	$ 10.87
Returns Above Feed Cost Per Head		$ 3.66	$ 9.24	$ 1.11
Returns For $100 of Feed		$134.97	$186.81	$111.36
Price per cwt. of lambs sold		$ 19.32	$ 22.30	$ 18.42
Price per lb. wool sold (cents)		.66	.63	.65
Pounds of wool per sheep sheared		7.4	7.2	9.0
Number of ewes kept for lambing		35.2	42.3	42.7
Per cent lamb crop		118.2	128.3	129.0
Per cent death loss		29.6	16.9	36.3
Average number of ewes		36.9	42.2	49.6

* Wool return including incentive payment.

LABOR EARNINGS CORRELATED WITH EXCELLED FACTORS

The thermometer chart on page 14 shows seven major management factors that influence farm earnings within a given year. These seven factors are:

1. Crop yields
2. Choice of crops
3. Returns from livestock
4. Amount of livestock
5. Size of business
6. Work units per worker
7. Control over expenses.

The combined effect of these management factors as related to farm earnings is shown below. Attention is called to the fact that farmers exceeding the average in most of the seven management factors are also those reporting the highest labor earnings.

TABLE XVII

No. of factors in which farmers excelled	No. of farms	0	1000	2000	3000	
0 or 1	13					$ 131
2 or 3	22					$ 1804
4 or 5	20					$ 1857
6 or 7	2					$ 3174

SUMMARY OF FARM EARNINGS, 1959-1964

Items	1959	1960	1961	1962	1963	1964
FARM RECEIPTS						
Dairy cattle	$1322	$1077	$ 977	$1173	$1162	$1003
Dairy products	5106	4961	5068	4734	5201	6031
Beef cattle (incl. feeders)	65	135	79	1060	718	943
Hogs	941	1117	1673	1313	739	511
Sheep and wool	123	120	84	70	100	97
Horses	8	5	--	7	8	--
Poultry (incl. turkeys	12	6	3	5	6	20
Eggs	42	62	37	32	29	40
Corn	240	246	174	181	434	28
Small grain	121	136	62	109	140	417
Other crops	232	219	180	259	121	846
Machine equip. sold&gas tax refund	156	155	169	145	204	157
Income from work off the farm	262	246	202	261	203	556
Miscellaneous	206	166	291	388	391	591
(1) Total Farm Sales	$3836	$8651	$8999	$9797	$9456	$11245
(2) Increase in farm capital	682	1560	973	1957	2264	572
(3) Family living from the farm	348	445	425	341	366	358
(4) Total Farm Receipts (1)+(2)+(3)	$9866	$10656	$10397	$12095	$12086	$12175
FARM EXPENSE						
Dairy cattle bought	$ 283	$ 109	$ 101	$ 138	$ 271	$ 69
Beef cattle bought (incl. feeders)	101	15	112	708	390	165
Hogs bought	35	40	45	40	24	21
Sheep bought (incl. feeders)	8	58	3	--	18	3
Horses bought	2	1	--	16	1	--
Poultry bought	10	8	6	6	5	13
Miscellaneous livestock	229	260	241	285	285	360
Feed bought	1305	1225	1468	1678	1310	1419
Fertilizers	211	267	274	334	297	467
Other crop expenses	304	218	253	308	311	429
Custom work hired	526	522	557	582	529	606
Gas-oil-grease bought (farm share)	548	607	585	606	673	679
Repair of mechanical power (f. share)	292	286	308	308	328	385
Repair & upkeep of real estate	104	47	126	98	77	106
Repair & upkeep of crop&gen.mach.	163	195	180	195	195	239
Repair & upkeep of livestock equip.	57	55	72	64	66	85
Wages of hired labor	265	485	348	300	276	340
Electricity expense (f. share)	208	197	217	225	206	216
Real estate & pers. property taxes	280	311	315	408	434	518
General farm expense	138	152	181	161	180	186
(5) Total Cash Operating Expense	$5069	$5058	$5392	$6461	$5876	$6306
(6) Cap. purch. mech. power bought	501	534	664	524	535	533
(7) Crop & general machinery bought	494	684	454	732	467	703
(8) Livestock equipment bought	67	134	112	223	407	208
(9) New real estate improvements	461	559	714	805	985	536
(10) Total Farm Purchases (5)-(9)	$6592	$6969	$7336	$8745	$8270	$8286
(11) Decrease in farm capital	--	--	--	--	--	--
(12) Interest on farm capital	1104	1085	1070	1303	1450	1749
(13) Unpaid family labor	413	177	282	352	443	453
(14) Board furnished hired labor	37	78	80	40	49	80
(15) Total Farm Expense (10)-(14)	$8146	$8309	$8768	$10440	$10212	$10568
(16) Labor Earnings (4)-(15)	$1720	$2347	$1629	$1655	$1874	$1607

AVERAGE PRICES USED FOR FEED, 1964

These averages were based on prices received by Minnesota Farmers for 1964. Information was obtained from the Minnesota Crop and Livestock Reporting Service, USDA, 560 State Office Building, St. Paul, Minnesota. (In some cases, adjustments were made to conform to N.E. Minnesota.)

CROP	UNIT	PRICE
Ear Corn	bu.	$ 1.05
Oats	bu.	.60
Barley	bu.	.85
Alfalfa hay	T.	20.00
Red clover	T.	18.00
Alsike clover	T.	18.00
Pea hay	T.	18.00
Clover - Timothy	T.	16.00
Wild hay	T.	12.00
Oat hay	T.	15.00
Reed Canary	T.	12.00
Corn silage	T.	6.00
Grass silage	T.	6.00
Green chop	T.	5.00
Pasture		1.75/head/no. (dairy, beef cow) 1.00/head/no. (young cattle) .20/head/no.(hogs .10/head/no.(pigs .25/head/no.(ewes .12/head/no.(lamb

NET INCOME PER ACRE FROM - RETURN TO LAND AND LABOR CROPS

The following summary is an attempt to show the net return per acre from the more important crops grown in this area. The costs charged against each crop are based on: (1) Power and machinery costs and (2) other costs as listed in the account book such as fertilzer, seed, taxes, etc. Power and machinery costs include such items as gas, oil, repairs, custom work hired and depreciation. Since it is necessary to have cooperating farmers "key-out" each of these items in the account book and assign them to each crop, only these books appear in the following table. Twenty-two farms are included in this report.

TABLE XVIII. COSTS AND RETURNS TO CROPS

No. Farms	Crop	Yield per Acre	Price	Gross Inc.per Acre	Power Mach.Exp. per Acre	Other Expense Per Acre	Total Expense Per Acre	Net per Acre
12	Corn	37.1	$1.05	$38.96	$4.89	$16.91	$21.80	$17.16
	Your farm	____	____	____	____	____	____	____
17	Oats	33.3	$ .60	$19.98	$3.38	$ 6.52	$ 9.90	$10.08
	Your farm	____	____	____	____	____	____	____
17	Corn silage	4.1	$6.00	$24.60	$6.65	$13.65	$20.30	$ 4.30
	Your farm	____	____	____	____	____	____	____
15	Alfalfa hay	1.6	$20.00	$32.00	$3.81	$ 6.94	$10.75	$21.25
	Your farm	____	____	____	____	____	____	____
10	Other hay	1.3	$16.00	$20.80	$2.35	$ 5.55	$ 7.90	$12.90
	Your farm	____	____	____	____	____	____	____
9	Tillable Pasture			$14.47			$ 2.15	$12.32
	Your farm			____			____	____
	Gov't. Programs			$22.28			$ 1.37	$20.91
	Your farm			____			____	____

The last page in this report, page 28, "Returns From Crops and Livestock", is a form used to indicate returns per acre and per hour for crops raised and then returns per hour as they are fed through various kinds of livestock. A supplementary report will be turned out this summer to show in detail the returns from various crops raised and then returns as they are fed through livestock. Again only "keyed-out" books will be included.

RETURNS FROM CROPS AND LIVESTOCK

ENTERPRISE_____

Crops Grown and Returns from Crops

Crop	Amount	Yield	Acres	Net	Hours	Acres/U.
Corn						
Oats						
Barley						
Corn Silage						
Oats Silage						
Hay, Legume						
Hay, Other						
Pasture and Green Chop						
						Total
Total			(A)	(B)	(C)	Avg. ABC
Net Per Acre (B÷A)					Avg.Net/AC	
Net/Hour (B÷C)					Avg.Net/hr	

****

Kind of Livestock _____ Size of Enterprise _____

Item	Total	Per	Average/Unit
Value Produced			
Feed Cost			
Miscl. Costs (P. 20-21)			
Repair, Upkeep (P. 43&45)			
Depr. Bldgs. & Equipment			
Real and Pers. Prop. Taxes			
Expenses (P. 38)			
Electricity (P. 47)			
Total Costs			
Returns - Livestock			
Labor - Livestock			
Return/Hour Livestock			

****

Returns: Crops + Livestock (The Complete Enterprise)

Item	Total	Per/Acre	Average/Unit
Net-crops + Livestock			
Labor-crop + Livestock			
Return/hour			
% of Total Work Load			