

LETS LOOK AT THE RECORD

1966 Annual Report

**VOCATIONAL AGRICULTURE
FARM MANAGEMENT PROGRAM**

NORTHWESTERN MINNESOTA

REPORT NO. 12

AREA VOCATIONAL TECHNICAL SCHOOL

THIEF RIVER FALLS, MINNESOTA

In Cooperation With

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

April 1967

Example of a *single* producer

TRF 19 67

OATS CROP ANALYSIS
(per acre)

Acres	Yield	Price	Gross Income	Fertilizer Cost	Seed & Other	Power & Machine	Land Cost	Total Costs	Net Return	Cost per Bushel	Break-even Yield
700	85	\$.63	\$ 55	\$ 7.00	7.00	\$ 3.00	\$ 1.	\$10	35	\$.20	10
650	80	.62	50	6.50	6.50	5.00	2	12	30	.30	15
600	75	.61	45	6.00	6.00	7.00	3	14	25	.40	20
550	70	.60	40	5.50	5.50	9.00	4	16	20	.50	25
500	65	.59	35	5.00	5.00	11.00	5	18	15	.60	30
450	60	.58	30	4.50	4.50	13.00	6	20	10	.70	35
400	55	.57	25	4.00	4.00	15.00	7	22	5	.80	40
350	50	.56	20	3.50	3.50	17.00	8	24	-5	.90	45
300	45	.55	15	3.00	3.00	19.00	9	26	-10	1.00	50
250	40	.54	10	2.50	2.50	21.00	10	28	-15	1.10	55
200	35	.53	5	2.00	2.00	23.00	11	30	-20	1.20	60
150	30	.52	0	1.50	1.50	25.00	12	32	-25	1.30	65
100	25	.51	-5	1.00	1.00			34			
50	20	.50	-10	.50	.50			36			

Example of a low producer

TRF 19 67

OATS CROP ANALYSIS
(per acre)

Acres	Yield	Price	Gross Income	Fertilizer Cost	Seed & Other	Power & Machine	Land Cost	Total Costs	Net Return	Cost per Bushel	Break-even Yield
700	85	\$.63	\$ 55	\$ 7.00	7.00	\$ 3.00	\$ 1.	\$10	35	\$.20	10
650	80	.62	50	6.50	6.50	5.00	2	12	30	.30	15
600	75	.61	45	6.00	6.00	7.00	3	14	25	.40	20
550	70	.60	40	5.50	5.00	9.00	4	16	20	.50	25
500	65	.59	35	5.00	4.50	11.00	5	18	15	.60	30
450	60	.58	30	4.50	4.00	13.00	6	20	10	.70	35
400	55	.57	25	4.00	3.50	15.00	7	22	5	.80	40
350	50	.56	20	3.50	3.00	17.00	8	24	-0	.90	45
300	45	.55	15	3.00	2.50	19.00	9	26	-5	1.00	50
250	40	.54	10	2.50	2.00	21.00	10	28	-10	1.10	55
200	35	.53	5	2.00	1.50	23.00	11	30	-15	1.20	60
150	30	.52	0	1.50	1.00	25.00	12	32	-20	1.30	65
100	25	.51	-5	1.00	.50			34			
50	20	.50	-10	.50				36			

DAIRY HERD ANALYSIS

Per

Net/ Cow	Price/ Lb. BF	Dairy Prod.	Net Inc.	Total Value Prod.	Feed Cost	Other Costs	Total Costs	Lbs. B.F.	Lbs. Milk	Lbs. Conc.	Milk Conc. Ratio	Cost/ Lb. Conc.	Feed Cost/ Lb. BF	Calving %	% Death Loss	Net/ Acres
418	\$1.68	641	182	740	154	15	222	455	12525	1845	5.8	1.6	\$.32	105	0	104
397	1.35	597	161	732	177	29	224	448	11829	2517	4.3	1.8	.33	96	0	76
352	1.30	573	155	723	173	61	250	444	11764	2831	3.7	1.8	.34	96	0	72
341	1.30	567	150	720	204	64	292	428	11416	3089	3.1	1.9	.35	94	0	53
337	1.30	548	149	670	206	66	300	396	11272	3113	3.1	1.9	.36	92	1.4	48
335	1.29	503	143	633	217	70	301	396	11085	3114	2.8	2.0	.37	92	2.1	44
261	1.28	494	140	627	226	81	314	395	11027	3114	2.7	2.0	.40	91	3.1	44
260	1.26	466	140	619	228	82	321	385	10965	3273	2.7	2.0	.41	89	3.4	44
255	1.25	457	139	607	232	93	325	384	10707	3615	2.6	2.1	.42	85	3.7	42
225	1.25	446	122	563	234	95	326	372	10562	3700	2.6	2.1	.43	85	5.3	37
221	1.23	425	116	561	235	98	328	364	10442	3988	2.5	2.2	.43	84	5.3	33
199	1.23	423	115	560	237	100	335	362	9690	4067	2.5	2.2	.44	83	5.5	32
197	1.18	419	114	542	241	104	338	355	9546	4170	2.4	2.2	.45	76	5.6	30
196	1.16	412	114	542	253	111	346	346	9318	4179	2.3	2.3	.46	75	5.9	26
194	1.15	402	103	525	255	118	359	329	8690	4567	2.2	2.4	.46	75	6.5	20
192	1.10	390	106	493	265	120	361	326	8482	4378	2.2	2.4	.47	75	7.0	19
185	1.09	371	103	485	277	128	372	316	8472	4933	2.1	2.5	.50	74	7.7	19
181	1.07	322	103	431	290	134	389	309	8057	5000	2.1	2.6	.52	71	8.8	16
106	1.07	282	96	396	298	160	426	293	7645	5175	2.0	2.7	.53	66	9.2	10
84	.71	220	91	335	299	150	459	282	6833	5478	1.7	2.7	.61	50	10.8	9

Example of low producer

BEEF COW HERD ANALYSIS Thief River Falls 1967

No. Cows	Gross Per Cow	Feed Cost	Ret. Over Feed	Other Costs	Total Costs	Net/Cow	Net/ (per cow)		Lbs. Conc.	Lbs. Hay	Lbs. Silage	% Calf Crop	% Death Loss	Lbs. Beef Prod.
							Net/Crop Acre	Net/Reef Acre Incl. Reef						
67	115	20	72	5	39	55	31.70	41.30	0	3247	0	100	0	546
78	113	34	60	6	46	51	16.00	29.70	0	3426	0	96	0	506
77	110	40	60	6	51	35	8.34	26.98	0	3700	0	95	0	503
53	106	40	46	7	59	28	6.64	18.57	0	4794	0	95	0	454
40	105	53	41	9	59	26	6.57	15.11	10	4849	0	94	.5	429
38	94	53	37	11	62	22	5.96	13.20	18	5347	0	94	1.7	416
29	84	55	28	11	62	22	5.73	12.08	23	5506	0	90	1.9	414
28	81	55	22	13	72	9	5.49	9.17	26	5654	0	89	2.3	376
27	81	57	11	15	76	1	4.99	5.75	31	6000	0	85	3.4	374
21	72	71	10	17	86	-1	2.55	5.55	51	6727	901	85	3.3	367
20	66	71	8	19	88	-4	2.40	-3.90	78	7470	1024	84	5.2	349
15	63	77	7	19	101	-8	-1.28	-14.61	143	8300	5350	80	10.0	334
13	51	88	1	31	106	-39	--	--	155	8468	9349	80	10.0	277
10	9	95	-80	40	111	-85	--	--	498	11200	12814	64	13.8	131

100

Net/ Cow	Price/ Lb. BF	Dairy Prod.	Net Inc.	Total Value Prod.	Feed Cost	Other Costs	Total Costs	Lbs. B.F.	Lbs. Milk	Lbs. Conc-	Milk Conc Ratio	Cost/ Lb. Conc	Feed Cost/ Lb. BF.	Calving % Loss	% Death Loss	Net/ Acres
418	1.68	641	182	740	154	15	242	455	12525	1845	5.8	1.6	.32	105	0	104
397	1.35	597	161	732	171	29	224	448	11829	2517	4.3	1.8	.33	96	0	76
354	1.30	573	153	723	173	61	250	444	11764	2831	3.7	1.8	.34	96	0	72
341	1.30	567	150	720	204	64	292	428	11416	3089	3.1	1.9	.35	94	0	53
337	1.30	548	149	670	206	66	300	396	11272	3113	3.1	1.9	.36	92	1.4	48
335	1.29	503	143	633	217	70	301	396	11085	3114	2.8	2.0	.37	92	2.1	44
261	1.28	494	140	627	226	81	314	395	11027	3114	2.7	2.0	.40	91	3.1	44
260	1.26	466	140	619	228	82	321	385	10965	3273	2.7	2.0	.41	89	3.4	44
255	1.25	457	139	607	232	93	325	384	10707	3615	2.6	2.1	.42	85	3.7	42
225	1.25	445	127	575	234	95	326	372	10562	3700	2.6	2.1	.43	85	4.5	31
221	1.23	425	116	561	235	98	328	364	10442	3988	2.5	2.2	.43	84	5.3	31
199	1.23	423	115	560	237	100	335	362	10014	4067	2.5	2.2	.44	83	5.3	32
197	1.18	419	114	542	241	104	338	355	9546	4170	2.4	2.2	.45	76	5.6	30
196	1.16	412	114	542	253	111	346	346	9318	4179	2.3	2.3	.46	75	5.9	26
194	1.15	402	109	525	255	118	359	329	8690	4567	2.2	2.4	.46	75	6.5	20
192	1.10	398	106	493	265	120	361	326	8482	4478	2.2	2.4	.47	75	7.0	19
185	1.09	371	103	485	271	128	372	316	8472	4933	2.1	2.5	.50	74	7.7	19
181	1.07	322	103	431	290	134	389	309	8057	5000	2.1	2.6	.52	71	8.8	16
106	1.07	282	96	396	298	160	426	293	7645	5155	2.0	2.7	.53	66	9.2	10
84	.71	220	91	335	299	150	459	282	6833	5478	1.7	2.7	.61	50	10.8	9

709	368	137	570	129	700	243	88	331	420	11539	4175	2.9	2.0	84	52.5
-----	-----	-----	-----	-----	-----	-----	----	-----	-----	-------	------	-----	-----	----	------

Example of high producer

BEEF COW HERD ANALYSIS Thief River Falls 1967

(per cow)

No. Cows	Gross Per Cow	Feed Cost	Ref. Over Feed	Other Costs	Total Costs	Net/Cow	Net/Crop Acre	Net/Beef Acre Incl.	Lbs. Conc.	Lbs. Hay	Lbs. Silage	% Calf Crop	% Death Loss	Lbs. Beef Prod.
167	115	20	72	5	39	55	31.70	41.30	0	3247	0	100	0	546
78	113	34	60	6	46	51	16.00	29.70	0	3426	0	96	0	506
77	110	40	60	6	51	35	8.34	26.98	0	3700	0	95	0	503
40	106	40	46	7	59	28	6.64	18.57	0	4794	0	95	0	454
40	105	53	41	9	59	26	6.57	15.11	10	4849	0	94	.5	429
38	94	53	37	11	62	22	5.96	13.20	18	5347	0	94	1.7	416
3	84	55	28	11	62	22	5.73	12.08	23	5506	0	90	1.9	414
38	81	55	22	13	72	0	5.49	9.17	26	5654	0	89	2.2	376
27	81	57	11	15	76	1	4.99	5.75	31	6000	0	85	3.4	374
71	72	71	10	17	86	-1	2.55	5.55	51	6277	901	85	3.8	367
16	66	71	8	19	88	-4	2.40	-3.90	78	7470	1024	84	5.2	349
15	63	77	7	19	101	-8	-1.28	-14.61	143	8300	5350	80	10.0	334
10	51	88	1	31	106	-39	--	--	155	8468	9349	80	10.0	277
10	9	95	-80	40	111	-85	--	--	498	11200	12814	64	13.8	131

1966 REPORT OF THE FARM MANAGEMENT PROGRAM FOR VOCATIONAL
AGRICULTURE IN NORTHWESTERN MINNESOTA

HERE'S WHERE YOU'LL FIND THE INFORMATION

Introduction	1-2
1966 in a Nutshell	3
Summary of Farm Inventories	4
Summary of Farm Earnings (Cash Statement)	5
Summary of Farm Earnings (Enterprise)	6
Range in Earnings	7
Household & Personal Expenses & Receipts	8
Net Worth	9
Summary of Farm Earnings by Tenure 1966 (Op. Share)	10
Measures in Farm Organization & Management Efficiency	11
Thermometer Chart	12
Labor Earnings Correlated With Excelled Factors	13
Power and Machinery Expenses	14
Total Feed Costs & Returns from Livestock Enterprises	14
Crop Summary	15-16
Hogs	17
Dairy Cattle	18-19
Feeder Cattle	20
Beef Cattle	20
Sheep	21
Chickens	22
Turkeys	23
Returns from Crops and Livestock	24
Average Prices Used	25
Explanation of "Work Units"	25
Summary of Farm Earnings by Years	26

LET'S GET ACQUAINTED

The Thief River Falls Area Vocational-Technical School in cooperation with the Minnesota Department of Education and Agricultural Education Department of the University of Minnesota is conducting a farm management program. The program was initiated in 1955, making twelve years of farm business analysis for farmers business analysis for farmers who are enrolled in adult or young farmer classes in the public schools of a twelve county area. Awards were made to the following farmers for 10 years of participation in this program: Mr. & Mrs. Marvin Koop, Mr. & Mrs. Edwin Anderson and Mr. & Mrs. Bernard Rundquist. This is the only farm management program in Northwestern Minnesota which stresses farm records as a basis for Evaluating the farming operation.

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

The analysis of the records and the preparation of the reports for Northwestern Minnesota are done under the direction of Ed Sisler of Area Vocational-Technical School at Thief River Falls. Clerical assistants for this project were: Eunice Hanson, Phyllis Moun, Gladys Narverud, Joyce Peterson, Marie Sorensen, Katherine Freeman and Eunice Lund. -1

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

This report deals with farmers enrolled fifteen schools in Northwestern Minnesota. The following tabulation shows the number of farmers submitting 1966 farm records for analysis, the schools cooperating and the names of the Vo-Ag instructors from these schools.

<u>School</u>	<u>No. of Farmers</u>	<u>Instructor</u>
Ada	11	Lowell Gunderson
Fergus Falls	5	Dick Hanson
Fertile	40	Conrad Carlson
Fisher	5	Winslow Helt
Fosston	6	Dean McNelly
Goodridge	5	Wally Shodean

<u>School(cont.)</u>	<u>No. of Farmers</u>	<u>Instructor</u>
Greenbush	6	Bernard Nelson
Halstad	4	Pete Fog
Henning	19	Darrell Sand
Karlstad	5	Harlan Hokanson
Lancaster	4	Wendell Francis
Middle River	7	Fred Fredrickson
Perham	44	Phil Toedter
Roseau	46	Joe Freeman
Thief River Falls	12	Don Johnson
Thief River Falls	50	Verne Spengler
Areas not served by	10	Ed Sisler
Vo-Ag Depts.		Vo-Ag Coordinator

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

ELECTRONICS

A part of the analysis this year was prepared by the Agricultural Records Cooperative in Madison, Wisconsin. This firm employs automatic data processing methods. This center utilized this resource to streamline our operation, so that the increasing number of records coming in can be properly handled.

INVESTMENT IN FARMING

The average capital investment per farm varied from \$45,162 for the low 20% to \$68,350 for the high 20%. The average investment for all farms included in this report and for the sixty high and the sixty low in operator's labor earning is shown on Table 1.

WHY KEEP FARM RECORDS?

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

^{1/} Britannica Research Service

<u>School(cont.)</u>	<u>No. of Farmers</u>	<u>Instructor</u>
Greenbush	6	Bernard Nelson
Halstad	4	Pete Fog
Henning	19	Darrell Sand
Karlstad	5	Harlan Hokanson
Lancaster	4	Wendell Francis
Middle River	7	Fred Fredrickson
Perham	44	Phil Toedter
Roseau	46	Joe Freeman
Thief River Falls	12	Don Johnson
Thief River Falls	50	Verne Spengler
Areas not served by Vo-Ag Depts.	10	Ed Sisler Vo-Ag Coordinator

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

ELECTRONICS

A part of the analysis this year was prepared by the Agricultural Records Cooperative in Madison, Wisconsin. This firm employs automatic data processing methods. This center utilized this resource to streamline our operation, so that the increasing number of records coming in can be properly handled.

INVESTMENT IN FARMING

The average capital investment per farm varied from \$45,162 for the low 20% to \$68,350 for the high 20%. The average investment for all farms included in this report and for the sixty high and the sixty low in operator's labor earning is shown on Table 1.

WHY KEEP FARM RECORDS?

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

^{1/} Britannica Research Service

1966 IN A NUTSHELL

	1964	1965	1966
Labor Earnings (Operators Share)	<u>\$ 3173</u>	<u>\$ 4965</u>	<u>\$ 8140</u>
Return to Capital & Family Labor	<u>5826</u>	<u>7787</u>	<u>9009</u>
Net Worth	<u>22264</u>	<u>23157</u>	<u>27034</u>
Ratio of Current Assets & Machinery to current liabilities	<u> </u>	<u>1.32</u>	<u>1.50</u>
Ratio of Real Estate Assets to Real Estate Liabilities	<u> </u>	<u>1.92</u>	<u>1.91</u>
Ratio of total assets to total Liabilities	<u>1.65</u>	<u>1.54</u>	<u>1.64</u>
Expenses per Dollar Income	<u>.90</u>	<u>.83</u>	<u>.74</u>

SIZE

Work Units - (One work unit equals one ten hour day)	<u>741</u>	<u>839</u>	<u>859</u>
Total Farm Capital	<u>59550</u>	<u>59618</u>	<u>62139</u>

FARM EARNINGS

There are three labor earnings statements contained in this report. Table two shows the labor earnings to the farm. Table six shows the labor earnings to the operator by taking the labor earnings of the landlord away from the farm labor earnings. Operators earnings is a measure of the relative financial success of a farmer compared with other farmers and represents the returns above all farm expenses and a charge for the use of farm capital. -3

There are two methods of computing operator's earnings. Table 2 shows the earnings statement on a cash basis and Table 3 shows the earnings on an enterprise or accrual basis. The principle difference in the two statements is the method of handling the net increase or decrease in the value of farm capital. In the cash statement the net increase or decrease in farm capital is entered as one item. In the enterprise statement, the net change in the inventory has been included in each enterprise in order to compute "total expenses and net decreases" by enterprises.

RETURNS TO CAPITAL

The return to capital and family labor represents the amount the farmer and his family earned with their labor and capital investment. This figure is found in Table 4 and 6.

WHAT IS THE CAPITAL INVESTMENT PICTURE IN OUR FARM BUSINESS?

Table 1. Summary of Farm Inventories, 1966

Items	Average of 253 farms	
	Jan. 1	Dec. 31
Size of farm (acres)	494	
Size of business (work units)*	480	
Dairy cattle	\$ 2,892	\$ 2,970
Other dairy cattle	1,645	1,819
Beef cattle (Incl. feeders)	3,463	4,416
Hogs	630	559
Sheep (including feeders)	272	361
Poultry (including turkeys)	268	284
Total Productive Livestock	9,170	10,409
Crops (Seed and Feed)	\$ 4,470	\$ 5,414
Auto & truck (farm share)	1,073	1,174
Tractors and motors	1,812	2,141
Crop and general machinery	3,185	3,806
Livestock equipment	1,173	1,432
Total machinery and equipment	\$ 7,243	\$ 8,553
Land	\$17,406	\$18,295
Buildings - fences - etc.	6,177	6,720
Total farm capital	\$44,466	\$49,391

Items	60 most profitable farms		60 least profitable farms	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31
Size of farm (acres)	526		562	
Size of Business (work units)	651		393	
Dairy cattle	\$ 4,058	\$4,503	\$ 1,589	\$ 1,319
Other dairy cattle	2,382	2,813	759	712
Beef cattle (incl. feeders)	3,772	5,328	5,297	6,217
Hogs	792	733	394	425
Sheep (including feeders)	7	116	478	489
Poultry (including turkeys)	357	433	176	216
Total Productive livestock	\$11,368	\$13,926	\$ 8,693	\$ 9,378
Crops (Seed and Feed)	\$ 7,877	\$ 9,839	\$ 3,510	\$ 3,605
Auto & truck (farm share)	\$ 1,344	\$ 1,542	\$ 1,017	\$ 1,028
Tractors and motors	2,088	2,519	1,734	2,175
Crop and general machinery	3,865	4,959	3,226	3,481
Livestock equipment	1,737	2,681	799	830
Total machinery and equip.	\$ 9,034	\$11,701	\$ 6,776	\$ 7,514
Land	\$22,370	\$23,041	\$17,655	\$18,681
Buildings - fences - etc.	\$ 8,312	\$ 9,843	\$ 5,921	\$ 5,984
Total farm capital	\$58,961	\$68,350	\$42,555	\$45,162

* See page 25 for an explanation of "work units".



...

...

...

...

...

...

...

...

...

...

...

...

...

...

Table 2. Summary of Farm Earnings (Cash Statement), 1966

Items	Average of 253 farms	60 most prof. farms	60 least prof. farms
<u>FARM RECEIPTS Here's where the money came from.</u>			
Dairy cattle	\$ 1,754	\$ 2,211	\$ 1,324
Dairy Products	5,457	8,875	2,006
Beef Cattle (Incl. Feeders)	2,515	3,079	4,118
Hogs	1,470	2,083	681
Sheep and Wool	277	8	416
Poultry (incl. Turkeys)	2,199	7,053	1,432
Eggs	581	1,082	329
Corn	272	1,003	41
Small Grain	3,399	5,708	3,321
Diverted Acre Income	478	579	615
Other Crops	619	1,276	339
Gas Tax Refunds & Cap. Assets Sold	269	444	341
Income From Work off the Farm	227	311	155
Miscellaneous Farm Income	907	1,574	586
(1) Total Farm Sales	\$ 20,424	\$35,286	\$15,704
(2) Increase in Farm Capital	4,925	9,389	2,607
(3) Family living from the farm	320	383	240
(4) Total Farm Receipts (1)-(2)-(3)	\$ 25,669	\$45,058	\$18,551
<u>FARM EXPENSES Here's where the money went.</u>			
Dairy Cattle bought	\$ 398	460	491
Beef Cattle bought (incl. feeders)	1,197	2,042	1,957
Hogs bought	65	98	108
Sheep bought	84	81	72
Poultry bought (incl. turkeys)	474	1,366	368
Misc. Livestock Expense	494	927	330
Feed bought	3,344	7,076	2,755
Fertilizer	924	1,366	815
Other Crop Expense	917	1,416	772
Custom Work Hired	717	987	573
Gas, Oil, Grease bought (farm share)	1,118	1,352	1,197
Repairs for Tractors, trucks & Autos (farm share)	657	884	668
Repair & Upkeep of Farm Real Estate	175	281	130
Repair & Upkeep of Crop & Gen. Mach.	393	500	393
Repair & Upkeep of Livestock Equip.	135	195	125
Wages of Hired Labor	612	1,092	624
Electricity Expense	291	380	247
Pers. Prop. & Real Estate Taxes	685	903	650
Telephone & Gen. Farm Expense	312	444	257
(5) Total Cash Operating Expense	\$ 12,992	\$21,850	\$12,532
(6) Mec. Power Bought (Farm Share)	1,080	1,385	1,200
(7) Crop & Gen. Machinery bought	1,427	2,205	964
(8) Livestock Equipment bought	487	1,299	178
(9) New Real Estate & Improvements	2,004	2,986	1,785
(10) Total Farm Purchases (5) thru (9)	\$ 17,990	\$29,725	\$16,659
(11) Decrease in Farm Capital			
(12) Interest on Farm Capital	2,346	3,183	2,193
(13) Unpaid Family Labor	543	721	477
(14) Board Furnished Hired Labor	87	140	91
(15) Total Farm Expense (10) thru (14)	\$ 20,966	\$33,769	\$19,420
(16) Labor Earnings (4) minus (15)	\$ 4,703	\$11,289	\$ - 869



1000

1000 1000 1000 1000

1000
1000

1000 1000 1000 1000
1000 1000 1000 1000

1000 1000
1000 1000
1000 1000

1000 1000 1000 1000
1000 1000 1000 1000
1000 1000 1000 1000
1000 1000 1000 1000
1000 1000 1000 1000

1000 1000

1000 1000 1000 1000

1000 1000

1000 1000 1000 1000

1000 1000
1000 1000
1000 1000
1000 1000
1000 1000

1000 1000 1000 1000
1000 1000 1000 1000
1000 1000 1000 1000
1000 1000 1000 1000
1000 1000 1000 1000

1000 1000
1000 1000

1000 1000 1000 1000
1000 1000 1000 1000

1000 1000

1000 1000 1000 1000

WHAT IS THE VALUE PRODUCED BY EACH ENTERPRISE?

Table 3. Summary of Farm Earnings (Enterprise Statement)*1966

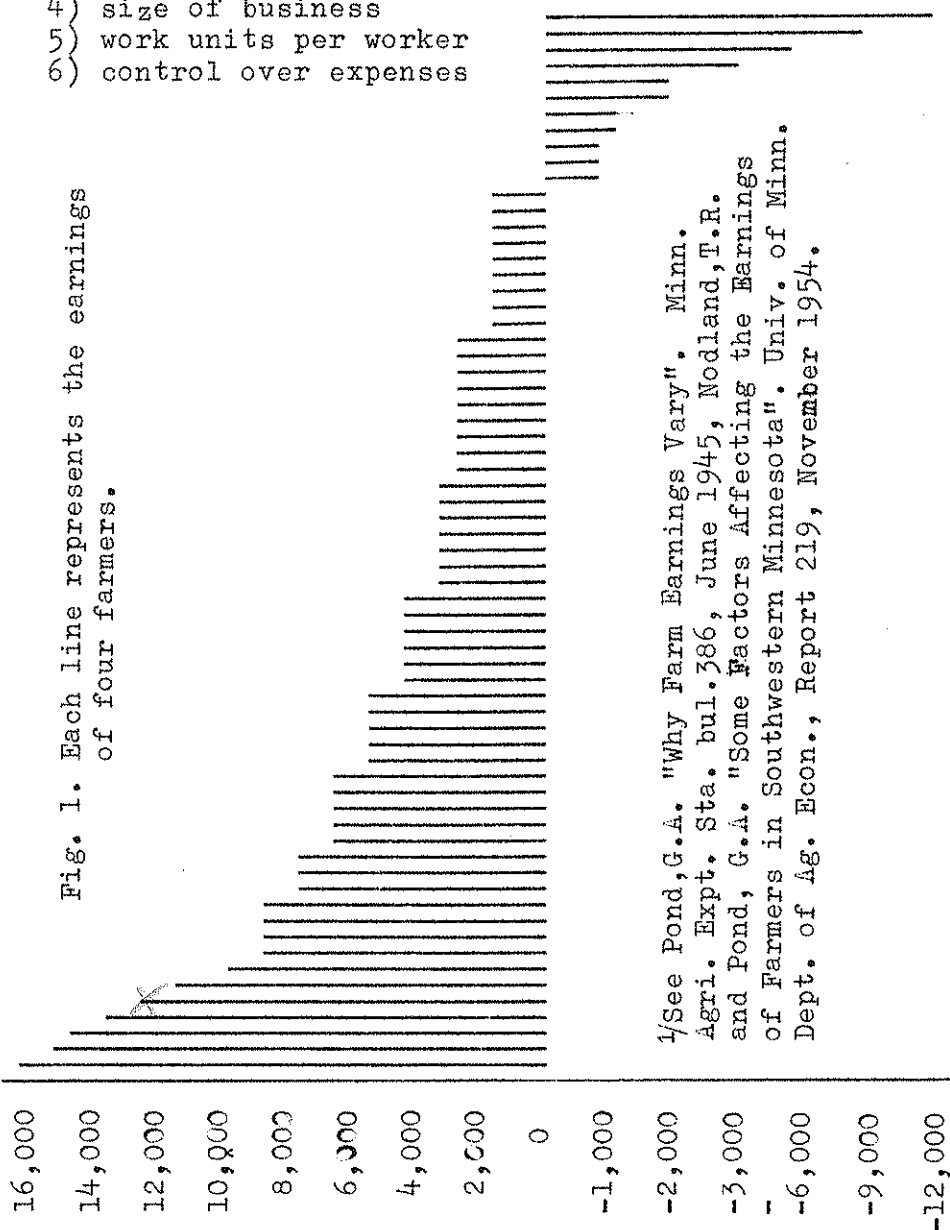
Items	Average of 202 farms	60 most prof. farms	60 least prof. farms
<u>RETURNS AND NET INCREASES</u>			
Dairy Cattle	\$ 5,845	\$ 9,262	\$ 2,125
Other Dairy Cattle	1,761	2,740	639
Beef Breeding Cattle	1,064	1,170	1,142
Feeder Cattle	1,149	1,356	1,993
Hogs	1,359	1,967	628
Sheep	283	36	358
Turkeys	1,793	5,802	1,139
Chickens	542	1,060	300
All Productive Livestock	\$ 13,796	\$ 23,393	\$ 8,324
Value of Feed Fed to Livestock	7,455	11,933	5,947
Return over Feed from Livestock	\$ 6,341	\$ 11,460	2,377
Crop, seed and feed	7,778	12,497	5,928
Income from Labor off the Farm	115	181	63
Agricultural Conservation payments	530	884	351
Miscellaneous	377	690	235
Total Returns and Net Increases	\$ 15,141	\$ 25,712	\$ 8,954
<u>EXPENSES AND NET DECREASES</u>			
Truck	\$ 415	572	462
Auto (Farm Share)	438	592	371
Tractor	1,317	1,507	1,458
Electric & Gas Engines	297	385	270
Hired Power	375	518	264
Total Power	\$ 2,842	\$ 3,574	\$ 2,825
Crop & General Machinery	1,221	1,654	1,128
Livestock Equipment	341	508	244
Buildings, Fences and Tiling	721	1,000	817
Bare Land	-19	-76	-15
Misc. Livestock Expense	494	927	330
Labor	1,496	2,305	1,394
Real Estate Taxes	487	655	488
Personal Property Tax	198	248	162
Insurance	113	159	84
General Farm Expense	199	285	173
Interest on Farm Capital	2,346	3,183	2,193
Total Expenses & Net Decreases	\$ 10,439	\$ 14,422	\$ 9,823
Labor Earnings	\$ 4,702	\$ 11,290	\$ -869

*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 5.

RANGE IN EARNINGS

Every study of farm earnings shows a wide variation in earnings among farmers in a given year (Fig.1). The average operator's earnings of those farmers ranking in the upper 20 per cent of the range according to earnings was \$11,289 and of those in the lower 20 per cent was -\$869. This is a range of \$12,158 between the average 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) returns from livestock
- 3) amount of livestock
- 4) size of business
- 5) work units per worker
- 6) control over expenses



HOUSEHOLD AND PERSONAL EXPENSES AND RECEIPTS

Household and personal accounts are important if the family is to manage its financial affairs wisely. The household and personal expenses and receipts are presented in Table 4. These farmers spent \$ 308 per month for family living in addition to the food, fuel and housing furnished by the farm.

HOW MUCH DID WE SPEND FOR LIVING?

Table 4. Household and Personal Expenses for Those Farms Which Kept Complete Accounts of These Expenses, 1966.

Items	Average of 163 farms	20% most prof. farms	20% least prof. farms
Number of Persons-Family	5.2	5.7	5.1
Number of Adult Equivalent-Family	3.7	4.1	3.5
Food and Meals Bought	\$1,076	\$ 1,323	\$ 957
Operating and supplies	304	361	295
Furnishings and Equipment	240	318	242
Clothing & Clothing Material	336	447	287
Personal Care & Spending	156	201	128
Education & Recreation	211	283	155
Gifts & Special Events	119	152	81
Medical Care & Health Insurance	450	595	392
Church and Welfare	165	393	61
Pers. Share Truck & Auto Exp.	133	155	126
Oper. Share Upkeep on Dwelling	9	34	6
Per. Share Tel. & Elect. Exp.			
Total Cash Living Expenses	\$3,291	\$ 4,378	\$ 2,827
Pers. Share New Truck & Auto	81	112	47
New Dwelling Bought	199	364	311
Taxes & Other Deductions	117	201	84
Life Insurance	3	16	
Other Savings & Investments			
Total Household & Pers. Cash Exp.	\$3,692	\$ 5,070	\$ 3,269
Total Family Living From the Farm	317	396	253
Total Cash Exp. & Perquisites	\$4,008	\$5,467	\$ 3,522
Income-Operators Labor Earnings	\$2,639	\$14,964	\$ 482
Return to capital and Labor	7,147	16,788	2,070
Non-Farm Income			
From Outside Investments			
From Sale of Outside Invest.			
Other Personal Income	11	15	27
Total Non-Farm Income	11	15	27
Total Money Borrowed	\$9,429	\$10,943	\$11,636
Paid on Debts - Principal	7,401	9,165	9,285



100

INTERVIEW WITH ...

000,000
100,000
000,000
000,000
000,000

ARTICLE 101
ARTICLE 102
ARTICLE 103
ARTICLE 104
ARTICLE 105

000,000
000,000
000,000
000,000
000,000

ARTICLE 106
ARTICLE 107
ARTICLE 108
ARTICLE 109
ARTICLE 110

000,000
000,000

ARTICLE 111
ARTICLE 112

000,000

ARTICLE 113
ARTICLE 114

NET WORTH

A net worth statement includes a listing of all the assets and liabilities as of a given date. The difference between the farmer's total assets and his liabilities is his net worth. A net worth statement is presented in Table 1. Both the farm and personal assets and liabilities are included.

The difference between the operator's net worth at the beginning and at the end of the year shows the gain in net worth. It represents the financial progress that has been made during the year.

HOW MUCH DID WE SAVE OF WHAT WE EARNED?

Table 5. Net Worth Statement for Those Farmers Who Kept a Complete Record of all Assets and Liabilities, 1966.

Items	Owners 225 Farms		Renters 16 Farms	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31
Total farm capital	\$44,210	\$49,158	\$15,924	\$16,936
Auto - Personal share	280	323	342	303
Dwelling	3,453	3,674	75	75
Other personal assets	3,990	4,549	2,293	2,458
Total assets	51,933	57,703	18,633	19,772
Real estate mortgages	9,555	10,612	688	576
Chattel mortgages	7,942	9,220	4,434	4,807
Notes	1,726	2,063	2,292	1,914
Accounts payable	1,008	1,000	489	599
Total liabilities	20,230	22,894	7,902	7,896
Farmers Net Worth	31,703	34,809	10,731	11,877
Gain in Net Worth		3,106		1,146

Table 6. Farm Earnings (Operators Share), 1966

	237 Owners	16 Renters
Farm Receipts		
Dairy and Dual Purpose Cattle	\$ 1,755	\$ 1,208
Dairy Products	5,474	2,908
Beef Cattle (incl. feeders)	2,599	1,027
Hogs	1,499	206
Sheep & Wool (incl. feeders)	250	648
Poultry (incl. turkeys)	2,201	
Eggs	613	33
Corn	214	508
Small Grain	3,045	3,544
Diverted Acre Income	489	162
Other Crops	626	203
Gas Tax Refund & Cap. Assets Sold	250	537
Income From Work off the Farm	225	158
Miscellaneous	886	804
1. Total Farm Sales	20,127	11,947
2. Increase in Farm Capital	4,993	1,012
3. Family Living from the Farm	323	201
4. Total Farm Receipts 1+2+3	25,443	13,160
Farm Expenses		
Dairy and Dual Purpose Cattle	369	148
Beef Cattle (incl. feeders)	1,218	105
Hogs	66	33
Sheep	76	196
Poultry	482	1
Misc. Livestock Expense	501	179
Feed	3,387	712
Fertilizers	882	957
Other Crop Expense	908	772
Custom Work Hired	734	272
Gas - Oil - Grease	1,109	939
Tractor-Truck-Auto Repairs	646	636
Real Estate Repairs	178	112
Crop & Gen. Mach. Repairs	394	314
Livestock Equip. Repairs	138	62
Wages of Hired Labor	610	455
Electricity Expense	293	154
Real Estate and Property Taxes	703	154
Cash Rent	304	912
General Farm	313	185
Interest Expense	1,003	444
Total Cash Operating Expenses	14,313	7,742
Mech. Power Bought	1,089	673
Crop & Gen. Mach. Bought	1,407	1,370
Livestock Equip. Bought	505	203
New Real Estate & Improvements	-1,716	76
5. Total Farm Purchases	15,598	10,064
6. Decrease in Farm Capital		
7. Interest on Farm Capital	1,370	377
8. Unpaid Family Labor	561	280
9. Board for Hired Labor	74	86
10. Total Farm Expenses 5+6+7+8+9	17,603	10,807
11. Labor Earnings 4-10	7,842	2,354
12. Ret. to Cap. & Labor 7+8+11	9,772	3,011



1101

1101 11/17/77 - 10110 11/17/77

1101 11/17/77

1101 11/17/77

1101

1101 11/17/77

1101 11/17/77

1101 11/17/77

1101

1101 11/17/77

1101

1101 11/17/77

1101

1101 11/17/77

1101

1101 11/17/77

1101

1101

1101 11/17/77

1101

1101 11/17/77

1101

1101 11/17/77

1101 11/17/77

1101 11/17/77

1101

1101

1101 11/17/77

1101

1101 11/17/77

1101

1101 11/17/77

1101

1101 11/17/77

1101

1101 11/17/77

1101 11/17/77

1101

1101 11/17/77

1101

1101 11/17/77

1101

1101 11/17/77

1101

1101 11/17/77

1101

1101 11/17/77

1101 11/17/77

Table 8. Measures of Farm Organization and Management Efficiency 1966

Measures used in Chart on Page 12	Average of 253 farms	60 most prof. farms	60 least prof. farms
Labor earnings	\$4,701	\$11,289	\$ -870
(1) Crop yields*	100	117	73
(2) Net per acre	15.18		
Net return per acre***	\$37.59	\$ 53.39	\$22.77
(3) Return for \$100 feed to produce livestock*	97	105	84
(4) Productive livestock units per 100 acres**	14.1	18.4	10.8
(5) Size of business - work units	479	650	392
(6) Work units per worker	316.9	349.5	270.1
(7) Power, machinery, equipment & building expense per work unit	\$10.69	\$ 10.36	\$12.77
Items Related to Some of the Above Measures			
(3) Index of return for \$100 feed from:			
Dairy cattle (see pp. 18-19)	103	114	75
Beef cattle - breeding herd (see p.20)	100	118	77
Beef cattle - feeders (see p.20)	99	120	96
Hogs (see p. 17)			
Sheep (see p. 21)	81	91	64
Chickens (see p. 22)			
(4) Number of animal units	61.0	86.7	51.9
(5) Work units on crop	190	240	193
Work units on productive livestock	281	399	196
(7) Power expense per work unit	\$ 5.93	\$ 5.50	\$ 7.20
Crop machinery expense per work unit	2.55	2.54	2.87
Livestock equipment exp. per work unit	.71	.78	.62
Building & fence exp. per work unit	1.50	1.54	2.08
(8) Crop-Gen.Mach. Exp. per crop acre	4.15	4.60	3.82
(9) Tractor expense per crop acre	4.78	4.53	5.19

* Given as a percentage of the average

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

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

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 253 farmers included in this summary are located between the dotted lines across the center of this page.

Labor earnings	Crop yields	Return per crop acre		Ret.fr. pro. lvsstk.	Pr.L.S. Units per 100 A.	Work Units	Work Units per Worker	Pw.Mach. Eq.& Bldg Exp. per work unit
		Gross	Net					
\$22,000	160	80	55	150	50	1000	525	2
20,000	156	78	48	140	46	960	500	3
18,000	149	73	43	135	42	900	475	4
16,000	142	68	39	130	38	840	450	5
14,000	135	63	35	125	34	780	425	6
12,000	128	58	31	120	30	720	400	7
10,000	121	53	27	115	26	660	375	8
8,000	114	48	23	110	22	600	350	9
6,000	107	43	19	105	18	540	325	10
4,000	100	38	15	100	14	480	317	11
2,000	93	35	14	93	13	450	300	12
0	86	32	13	86	12	420	275	13
-2,000	79	29	11	79	10	390	250	15
-4,000	72	26	9	72	8	360	225	17
-6,000	65	23	8	65	7	330	200	18
-8,000	58	20	7	58	5	300	175	19
-10,000	51	18	5	51	3	270	150	20
-12,000	44	16	4	44	1	240	125	21
-14,000	40	15	3	40	0	200	100	22

LABOR EARNINGS CORRELATED WITH EXCELLED FACTORS

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

No. of factors in which farmers excelled		No. of farms	0	2000	4000	6000	8000	10000	12000
0 or 1	63								1022
2 or 3	106								4002
4 or 5	72								7678
6 or 7	12								11753

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

239

WHICH ARE MY HIGH RETURN CROPS

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

Table 9b. Costs and Returns to Crops

Crop	Yield per Acre	Price	Gross Inc. per Acre	Power Mach. Exp. Per Acre	Other Exp. Per Acre	Tax	Total Exp. Per Acre	Net Per Acre
Oats	42.2	\$.53	\$22.30	\$8.18	\$5.72	\$1.33	\$15.23	\$9.07
	<u>26.6</u>	<u>.55</u>	<u>14.72</u>	<u>4.79</u>	<u>4.32</u>	<u>.27</u>	<u>9.43</u>	<u>5.34</u>
Barley	30.4	\$1.08	\$32.83	\$8.18	\$8.18	\$1.33	\$17.69	\$15.14
	<u>36.6</u>	<u>1.07</u>	<u>39.06</u>	<u>4.79</u>	<u>7.92</u>	<u>.27</u>	<u>12.98</u>	<u>26.08</u>
Flax	6.8	\$2.93	\$19.91	\$8.18	\$4.61	\$1.33	\$14.12	\$5.95
Wheat	20.7	\$1.70	\$35.22	\$8.18	\$9.07	\$1.33	\$18.58	\$16.54
	<u>22.5</u>	<u>1.39</u>	<u>31.13</u>	<u>4.79</u>	<u>11.31</u>	<u>.27</u>	<u>16.37</u>	<u>14.76</u>
Durum	25.5	\$1.57	\$40.08	\$8.18	\$9.53	\$1.33	\$19.04	\$21.04
Rye	17.2	\$1.04	\$17.79	\$8.18	\$2.84	\$1.33	\$12.35	\$5.44
Alfalfa								
hay	2.3	\$15.47	\$35.14	\$9.82	\$4.67	\$1.33	\$15.82	\$19.32
	<u>1.9</u>	<u>14.00</u>	<u>26.25</u>	<u>5.25</u>	<u>8.86</u>	<u>.27</u>	<u>14.38</u>	<u>11.37</u>
Leg. Mix								
hay	1.4	\$11.08	\$15.47	\$6.54	\$2.00	\$1.33	\$ 9.87	\$5.60
Grass								
hay	1.4	\$10.94	\$15.57	\$6.54	\$2.60	\$1.33	\$10.47	\$5.10
Wild hay	1.0	\$ 8.45	\$ 8.22	\$6.54	\$1.33	\$1.33	\$ 9.20	\$-.99
Corn Sil	9.6	\$ 6.02	\$57.78	\$16.36	\$7.74	\$1.33	\$25.43	\$32.35
	<u>6.9</u>	<u>6.10</u>	<u>42.18</u>	<u>9.58</u>	<u>6.31</u>	<u>.27</u>	<u>16.16</u>	<u>25.14</u>
Corn	67.6	\$1.10	\$74.65	\$11.45	\$8.74	\$1.33	\$21.52	\$53.13
Grain								
Sugar	13.0	\$14.19	\$184.61	\$24.54	\$14.85	\$1.33	\$40.72	\$143.89
Beets								
Pota- toes	142.8	\$.04	\$119.66	\$32.72	\$50.14	\$1.33	\$84.19	\$35.47

Table 9b. (Continued)

Crop	Yield Per Acre	Price	Gross Inc. per Acre	Power, Mach. Exp. Per Acre	Other Exp. Per Acre	Tax	Total Exp. Per Acre	Net Per Acre
Sweet Clover Seed	539.7	\$.04	\$22.75	\$6.54	\$.07	\$1.33	\$7.94	\$14.81
*Red Clover Seed	143.4	\$.19	\$35.63	\$10.09	\$6.86	\$1.33	\$18.28	\$17.35
Oats or Grass Silage	6.3	\$4.49	\$28.10	\$ 9.82	\$1.78	\$1.33	\$12.93	\$15.17
Oats & Barley Mixture	42.6	\$.70	\$30.05	\$8.18	\$4.19	\$1.33	\$13.70	\$16.35
Sun- flowers	1098.6	\$.05	\$56.92	\$8.18	\$8.15	\$1.33	\$17.66	\$39.26
Mustard	400.0	\$.06	\$22.40	\$8.18	\$3.93	\$1.33	\$13.44	\$ 8.96
Milliet	1190.0	\$.02	\$23.60	\$8.18	\$5.31	\$1.33	\$14.82	\$ 8.78
Soy- beans	21.9	\$ 2.46	\$53.86	\$8.18	\$6.95	\$1.33	\$16.46	\$37.42
Trefoil seed	223.5	\$.44	\$98.52	\$6.54	\$1.25	\$1.33	\$ 9.12	\$89.40
Timothy seed	222.5	\$.09	\$20.12	\$6.54	\$8.20	\$1.33	\$16.07	\$ 4.05

*54% of the acres of red clover harvested an average of 1.2 tons of hay per acre. Value of hay is included in income per acre.

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 lbs.". These data indicate the relative importance of different classes of livestock as a source of income and as a market for feed. The total return is the same as the returns and net increases shown on page 6. The value of milk consumed by calves is included in the total returns from dairy cows and in the total feed cost for other dairy cattle. The value of milk consumed by calves is not included in either the total returns or the feed cost of "all dairy". The return over feed is not a net return, but rather the amount available from the gross income, after paying the feed bill, to cover the outlay for hired labor, power, equipment, taxes, insurance, interest and veterinary bills and to provide a return for the use of family labor and capital.

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

Table 11. Feed Costs and Returns from Market Hogs, 1966

Items	16 most prof. farms	18 least prof. farms
Lbs. feed per cwt. hogs produced		
Corn	148	135
Small grain	207	220
Commercial feeds	70	148
Total concentrates	425	503
Forages	3	3
Feed cost per cwt. hogs produced		
Concentrates and forages	\$10.73	\$14.66
Pasture	.04	.12
Total Feed Costs	\$10.77	\$14.78
Net inc. - dec. in value per cwt.	21.94	22.35
Returns over feed cost per cwt.	11.17	7.57
Return for \$100 of feed	\$203.71	\$151.22
Price received per cwt.	23.79	25.23
Number of litters farrowed	23	20
Number of pigs born per litter	9.2	8.9
Number of pigs weaned per litter	7.8	6.8
Pounds of hogs produced	35,352	32,332

11 a. Feed Costs and Returns from Feeder Pig Production, 1966

Items	Average of 26 farms	5 most prof. farms	5 least prof. farms
Feed per litter, lbs.:			
Corn	668	549	2022
Small grain	1280	1338	1216
Commercial feeds	494	246	268
Total concentrates	2442	2133	3506
Roughages	91	88	
Feed cost per litter:			
Concentrates	\$59.30	\$54.84	\$67.51
Roughages	.66	.71	
Pasture	.79	1.83	.59
Total Feed Cost	\$60.75	\$57.38	\$68.10
Net increase in value per litter	\$132.91	\$193.71	\$74.99
Returns above feed cost per litter	\$72.16	\$136.33	\$ 6.89
Returns for \$100 feed	\$219.00	\$337.00	\$110.00
Total no. of litters raised	24	23	15
No. of pigs born per litter	8.5	9.1	7.7
No. of pigs weaned per litter	7.1	8.9	5.1

100000 100000 100000

100000
100000
100000

100000 100000 100000
100000 100000 100000
100000 100000 100000

100000
100000

100000 100000 100000
100000 100000 100000
100000 100000 100000

100000 100000 100000
100000 100000 100000

100000
100000

100000 100000 100000
100000 100000 100000

100000

100000 100000 100000
100000 100000 100000

100000
100000
100000

100000 100000 100000
100000 100000 100000
100000 100000 100000

100000
100000
100000
100000
100000

100000 100000 100000
100000 100000 100000
100000 100000 100000
100000 100000 100000
100000 100000 100000

100000
100000
100000
100000
100000

100000 100000 100000
100000 100000 100000
100000 100000 100000
100000 100000 100000
100000 100000 100000

100000

100000 100000 100000

100000

100000 100000 100000

100000

100000 100000 100000

100000

100000 100000 100000

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	Average of 78 farms	39 farms high. in butterfat per cow	39 farms low in butterfat per cow
Pounds of butterfat per cow	348	441	234
Pounds of milk per cow	9990	12165	6533
Percent of butterfat in milk	3.5	3.6	3.4
Price per pound of butterfat sold	107.5	112.2	102.8
Price per hundred pounds milk sold	3.74	4.06	3.57
Feed per cow - pounds			
Corn	636	940	875
Small grain	2558	2446	2614
Commercial feeds	454	1289	593
Legume hay	6987	6891	6446
Other hay and fodder	402	408	557
Total concentrates	3648	4675	4082
Total dry roughages	7389	7299	7003
Total silage	7585	8314	6314
Feed cost per cow			
Concentrates*	\$ 78.55	\$108.95	\$ 64.03
Roughages	77.32	83.12	74.81
Pasture	12.62	4.05	6.41
Total feed costs	\$168.49	\$196.12	\$145.25
Value of produce per cow			
Butterfat sales	\$358.51	\$470.96	\$226.18
Dairy products used in home	6.35	6.23	7.90
Milk fed to livestock	19.95	6.01	9.28
Net increases in value of cows	-.19	10.21	-4.47
Total value produced	\$384.62	\$493.41	\$238.89
Returns over feed cost per cow	216.13	297.29	93.64
Returns for \$100 of feed	228.20	251.50	164.40
Feed cost per pound of butterfat	48.4	44.4	62.0
Number of cows	24.0	28.0	20.3

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

[illegible][illegible]

55 57 59 61 63 65 67 69 71 73 75 77 79 81 83 85 87 89 91 93 95 97 99 101 103 105 107 109 111 113 115 117 119 121 123 125 127 129 131 133 135 137 139 141 143 145 147 149 151 153 155 157 159 161 163 165 167 169 171 173 175 177 179 181 183 185 187 189 191 193 195 197 199 201 203 205 207 209 211 213 215 217 219 221 223 225 227 229 231 233 235 237 239 241 243 245 247 249 251 253 255 257 259 261 263 265 267 269 271 273 275 277 279 281 283 285 287 289 291 293 295 297 299 301 303 305 307 309 311 313 315 317 319 321 323 325 327 329 331 333 335 337 339 341 343 345 347 349 351 353 355 357 359 361 363 365 367 369 371 373 375 377 379 381 383 385 387 389 391 393 395 397 399 401 403 405 407 409 411 413 415 417 419 421 423 425 427 429 431 433 435 437 439 441 443 445 447 449 451 453 455 457 459 461 463 465 467 469 471 473 475 477 479 481 483 485 487 489 491 493 495 497 499 501 503 505 507 509 511 513 515 517 519 521 523 525 527 529 531 533 535 537 539 541 543 545 547 549 551 553 555 557 559 561 563 565 567 569 571 573 575 577 579 581 583 585 587 589 591 593 595 597 599 601 603 605 607 609 611 613 615 617 619 621 623 625 627 629 631 633 635 637 639 641 643 645 647 649 651 653 655 657 659 661 663 665 667 669 671 673 675 677 679 681 683 685 687 689 691 693 695 697 699 701 703 705 707 709 711 713 715 717 719 721 723 725 727 729 731 733 735 737 739 741 743 745 747 749 751 753 755 757 759 761 763 765 767 769 771 773 775 777 779 781 783 785 787 789 791 793 795 797 799 801 803 805 807 809 811 813 815 817 819 821 823 825 827 829 831 833 835 837 839 841 843 845 847 849 851 853 855 857 859 861 863 865 867 869 871 873 875 877 879 881 883 885 887 889 891 893 895 897 899 901 903 905 907 909 911 913 915 917 919 921 923 925 927 929 931 933 935 937 939 941 943 945 947 949 951 953 955 957 959 961 963 965 967 969 971 973 975 977 979 981 983 985 987 989 991 993 995 997 999 1001 1003 1005 1007 1009 1011 1013 1015 1017 1019 1021 1023 1025 1027 1029 1031 1033 1035 1037 1039 1041 1043 1045 1047 1049 1051 1053 1055 1057 1059 1061 1063 1065 1067 1069 1071 1073 1075 1077 1079 1081 1083 1085 1087 1089 1091 1093 1095 1097 1099 1101 1103 1105 1107 1109 1111 1113 1115 1117 1119 1121 1123 1125 1127 1129 1131 1133 1135 1137 1139 1141 1143 1145 1147 1149 1151 1153 1155 1157 1159 1161 1163 1165 1167 1169 1171 1173 1175 1177 1179 1181 1183 1185 1187 1189 1191 1193 1195 1197 1199 1201 1203 1205 1207 1209 1211 1213 1215 1217 1219 1221 1223 1225 1227 1229 1231 1233 1235 1237 1239 1241 1243 1245 1247 1249 1251 1253 1255 1257 1259 1261 1263 1265 1267 1269 1271 1273 1275 1277 1279 1281 1283 1285 1287 1289 1291 1293 1295 1297 1299 1301 1303 1305 1307 1309 1311 1313 1315 1317 1319 1321 1323 1325 1327 1329 1331 1333 1335 1337 1339 1341 1343 1345 1347 1349 1351 1353 1355 1357 1359 1361 1363 1365 1367 1369 1371 1373 1375 1377 1379 1381 1383 1385 1387 1389 1391 1393 1395 1397 1399 1401 1403 1405 1407 1409 1411 1413 1415 1417 1419 1421 1423 1425 1427 1429 1431 1433 1435 1437 1439 1441 1443 1445 1447 1449 1451 1453 1455 1457 1459 1461 1463 1465 1467 1469 1471 1473 1475 1477 1479 1481 1483 1485 1487 1489 1491 1493 1495 1497 1499 1501 1503 1505 1507 1509 1511 1513 1515 1517 1519 1521 1523 1525 1527 1529 1531 1533 1535 1537 1539 1541 1543 1545 1547 1549 1551 1553 1555 1557 1559 1561 1563 1565 1567 1569 1571 1573 1575 1577 1579 1581 1583 1585 1587 1589 1591 1593 1595 1597 1599 1601 1603 1605 1607 1609 1611 1613 1615 1617 1619 1621 1623 1625 1627 1629 1631 1633 1635 1637 1639 1641 1643 1645 1647 1649 1651 1653 1655 1657 1659 1661 1663 1665 1667 1669 1671 1673 1675 1677 1679 1681 1683 1685 1687 1689 1691 1693 1695 1697 1699 1701 1703 1705 1707 1709 1711 1713 1715 1717 1719 1721 1723 1725 1727 1729 1731 1733 1735 1737 1739 1741 1743 1745 1747 1749 1751 1753 1755 1757 1759 1761 1763 1765 1767 1769 1771 1773 1775 1777 1779 1781 1783 1785 1787 1789 1791 1793 1795 1797 1799 1801 1803 1805 1807 1809 1811 1813 1815 1817 1819 1821 1823 1825 1827 1829 1831 1833 1835 1837 1839 1841 1843 1845 1847 1849 1851 1853 1855 1857 1859 1861 1863 1865 1867 1869 1871 1873 1875 1877 1879 1881 1883 1885 1887 1889

1998 年 10 月 14 日 星期三

10 1 600 000 000
 0000000000
 000000 000 000
 000000

Table 13. Feed Costs & Returns from Other Dairy Cattle, 1966

Items	Average of 85 farms	38 Farms high. in butterfat per cow	37 Farms low in butterfat
Feed per head, lbs.:			
Concentrates	603	647	310
Hay and fodder	2685	2289	2227
Silage	1570	1897	1438
Milk	193	326	300
Feed cost per head			
Concentrates	\$ 14.01	\$ 16.83	\$ 8.11
Roughages	23.38	23.62	21.44
Milk	14.20	4.43	7.78
Pasture	5.69	2.67	3.48
Total feed costs per head	\$ 57.28	\$ 47.55	\$ 40.81
Net inc.-dec. in value	84.39	97.50	80.75
Returns over feed cost per head	27.11	49.95	39.94
Returns for \$100 of feed	\$147.33	\$205.05	\$197.87
Number of head	31.2	38.8	25.5

Table 14. Feed Costs and Returns from All Dairy Cattle, 1966

Items	Average of 85 farms	39 Farms high. in butterfat per cow	39 Farms low in butterfat
Feed per cow, lbs.:			
Concentrates	4556	5548	4452
Hay and fodder	11328	10391	9661
Silage	9896	10874	8030
Total feed costs per cow	\$251.86	\$260.39	\$193.96
Value of produce per cow			
Dairy products	\$388.70	\$483.20	\$243.36
Net inc.-dec. in value	121.81	142.20	91.87
Total value produced	510.51	625.40	335.23
Returns over feed cost per cow	\$258.65	\$365.01	\$141.27
Returns per \$100 feed cost	\$202.70	\$240.18	\$172.83
Animal units of cattle	37.9	46.9	32.4

10/10/70

10/10/70
10/10/70
10/10/70
10/10/70

10/10/70

10/10/70

10/10/70

10/10/70

10/10/70
10/10/70
10/10/70

10/10/70

10/10/70
10/10/70

10/10/70

10/10/70

10/10/70

10/10/70

10/10/70

10/10/70

10/10/70
10/10/70

10/10/70
10/10/70
10/10/70

10/10/70

Table 15. Feed Costs and Returns from Beef Cattle, 1966

Items	Average of 72 farms	36 most prof. farms	36 least prof. farms
Feeds per cow, lbs.:			
Concentrates	371	494	211
Legume	4,164	3,653	4,829
Silage	3,593	2,747	4,696
Other hay	1,018	1,563	308
Feed cost per cow			
Concentrates	\$ 7.04	\$ 7.41	\$ 6.56
Roughages	47.68	41.44	55.85
Pasture	7.82	8.28	7.21
Total feed costs	\$ 62.54	\$ 57.13	\$ 69.62
Net increase in value of animals	\$ 99.62	\$115.46	\$ 78.97
Returns above feed cost per cow	\$ 37.08	\$ 58.33	\$ 9.35
Returns for \$100 of feed	\$159.19	\$202.03	\$113.42
Number of cows and bulls	37.2	42.1	32.3
Number of animal units	36.5	41.7	31.4
Pounds of beef produced	11,463	17,309	5,618
Per cent calf crop	88.2		

Table 15. Feed Costs and Returns from Feeder Cattle, 1966

Items	Average of 42 farms	16 most prof. farms	15 least prof. farms
Feeds per Cwt beef produced, lbs.:			
Corn	172	123	224
Small grain	239	177	330
Commercial feeds	34	26	46
Legume hay	428	450	307
Other hay and fodder	43	26	73
Total concentrates	445	326	600
Total hay and fodder	471	476	380
Silage	908	784	1,159
Feed cost per cwt. beef produced			
Concentrates	\$ 9.93	\$ 7.57	\$ 13.36
Roughages	6.11	5.58	6.42
Pasture	.48	.62	.23
Total feed costs	\$ 16.52	\$ 13.77	\$ 20.01
Net increase in value of animals	\$ 23.21	\$ 23.66	\$ 22.38
Returns above feed cost cwt. beef prod.	6.69	9.89	2.37
Returns for \$100 of feed	\$140.49	\$171.71	\$111.88
Price paid cwt. beef bought	\$ 13.36	\$ 19.53	\$ 8.22
Price received for beef sold	\$ 21.59	\$ 21.86	\$ 22.52
Number of animal units	58.4	86.3	58.6
Pounds of beef produced	28,412	41,071	30,522

Table 16. Feed Costs and Returns from Farm Flock of Sheep, 1966

Items	Ave. of 20 high in ret. above feed cost	Ave. of 18 low in ret. above feed cost
Feeds per Ewe*, lbs.:		
Concentrates	90	178
Legume hay	817	1,257
Other hay	146	62
Silage		15
Feed cost per ewe		
Concentrates	\$ 1.71	\$ 2.96
Roughages	6.22	8.45
Pasture	2.13	1.77
Total feed costs	\$ 10.06	\$ 13.18
Value of Produce per head		
Wool	\$ 6.67	\$ 4.93
Net increase in value of animals	\$ 21.22	\$ 10.65
Total value produced	\$ 27.89	\$ 15.58
Returns above feed cost per head	\$ 17.83	\$ 2.40
Returns for \$100 of feed	\$277.25	\$118.16
Price per cwt. lamb and mutton sold	\$ 15.73	\$ 12.80
Price per lb. wool sold	.76	.67
Pounds of wool per sheep	9.1	6.2
Number of ewes kept for lambing	80.8	82.2
Per cent lamb crop**	132.3	101.9
Per cent death loss**	14.0	21.9
Average number of ewes	81.7	80.2

* Average number of sheep minus rams.

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

Table 17. Feed Costs and Returns from Chickens,* 1966

Items	Ave. of 14 farms over/500 birds	Ave. of 13 farms under 500 birds
Feed per hen, lbs.:		
Grain	58	16
Commercial feeds	40	101
Total Concentrates	98	117
Total feed cost per hen	\$ 3.32	\$ 3.34
Value of produce per hen		
Eggs sold and used	\$ 5.40	\$ 5.38
Inc.-dec. in value of flock	.19	-1.17
Total value produced	\$ 5.59	\$ 4.21
Returns over feed cost per hen	\$ 2.27	\$.87
Returns for \$100 of feed	\$ 168.37	\$ 126.05
Price per dozen eggs sold - ¢	33.9	34.2
Eggs laid per hen	191	189
Average number of hen	923	972
Per cent death loss	9.1	10.0

Table 18. Feed Costs and Returns from Turkey Breeder Hens, 1966

Items	Your Farm	Average of 4 farms
Feed per hen, lbs.:		
Maintenance Feed	_____	49
Breeder Feed	_____	147
Total concentrates	_____	197
Total feed cost per hen	\$ _____	\$ 6.75
Value of produce per hen:		
Eggs sold	\$ _____	\$15.29
Net inc. in value of breeder hens	\$ _____	-.71
Total value produced	\$ _____	\$14.57
Returns above feed cost per hen	\$ _____	\$ 7.82
Returns for \$100 of feed	\$ _____	\$ 2.16
Price per egg - ¢	\$ _____	23.7
Eggs per hen	_____	63
Ave. No. of hens on farm	_____	843

Table 18a. Feed Costs and Returns from Turkey Poults, 1966

Items	Your Farm	Average of farms
Feed per cwt.:		
Grain	_____	60
Commercial feeds	_____	323
Total concentrates	_____	383
Total feed cost per CWT.	\$ _____	\$ 12.82
Net inc. in value of turkeys per cwt	\$ _____	\$ 19.62
Return above feed cost per cwt	\$ _____	\$ 6.80
Return for \$100 of feed	\$ _____	\$ 153
Number of poults put on feed	_____	9340
% death loss	_____	12.5
Price per pound sold	\$ _____	23.3
Weight per bird sold	_____	19.1
Pounds turkey produced	_____	155644

RETURNS FROM CROPS AND LIVESTOCK

ENTERPRISE Rainy

Crops Grown and Returns from Crops

Crop	Amount	Yield	Acres	Net	Hours	Acres/
oats	3043	26.6	114.4	610.90	572	3.6
wheat	1073	22.5	47.7	704.05	239	1.5
barley	521	36.6	14.2	370.34	21	.4
hay	240	1.9	126.3	1436.03	758	3.9
clover	300	6.9	43.5	1097.07	435	1.3
pasture	\$105.45		9.0	105.45		
Total			4.355	4324	2075	11.0
Net/Acre (B-A)			XXX	72	XXX	
Net/Hour (B-C)					2.08	

Kind of Livestock

Size of Enterprise

33

Item	Total	Per Cow	Average/Unit
Value Produced	2248	628.82	504
Feed Cost	9930	308.39	230
Misc. Costs	912	28.34	17
Repair, Upkeep	157	14.20	5
Dep. Bldgs. & Equip.	1265	39.29	22
Real & Pers. Prop. Taxes	256	7.95	7
Expenses	445	44.88	37
Electricity	222	10.00	10
Total Costs	14587	452.01	329
Returns-Livestock	5661	175.81	175
Labor-Livestock	3547	110	113
Return/Bar Livestock	1.60	XXXXX	1.55

Returns Crops + Livestock (The Complete Enterprise)

Item	Total	Per	Average/Unit
Net crops-livestock	9984.84	28	
Labor crops+livestock	56	16	
Return/hour	1.78	XXXXXX	
% of total work load		XXXXXX	

RETURNS FROM CROPS AND LIVESTOCK

ENTERPRISE Feeders

Crops Grown and Returns from Crops

Crop	Amount	Yield	Acres	Net	Hours	Acres/
oats	997	24.6	39.5	200.85	188	.4
wheat	535	27.5	23.8	351.29	119	.3
barley	104	36.6	2.8	73.08	14	.03
hay	25	1.9	13.8	150.08	77	.8
Total			A. 77	B. 774.64	C. 400	.9
Net/Acre (B-A)			XXX	16.06	XXX	
Net/Hour (B-C)			XXX	XXX	1.94	

Kind of Livestock

Size of Enterprise 85 cows

Item	Total	Per Cow	Average/Unit
Value Produced	2955	34.76	23.26
Feed Cost	1837	21.61	17.01
Misc. Costs (P. 20-21)	11.62	14	.25
Repair, Unkeep (P. 43-45)			.22
Dep. Bldgs. & Equip.	25.00	29	1.27
Real & Pers. Prop. Taxes	1	13	.46
Expenses (P. 38)	198.24	2.33	1.54
Electricity	17.00	20	.20
Total Costs	2100	24.71	20.97
Returns-Livestock	855	10.05	2.29
Labor-Livestock	218	25	.25
Return/Hour Livestock	4.33	XXXXXX	.91

Returns* Crops + Livestock (The Complete Enterprise)

Item	Total	Per Acre	Average/Unit
Net-crops+livestock	1679.64	21.76	
Labor-crops+livestock	1618	8	
Return/hour	2.66	XXXXXX	
% of total work load		XXXXXX	

Table 24. Average of Feed and Produce Used In Home, Prices 1966

<u>FEED PRICES</u>			
<u>Farm Grown Grains</u>		<u>Hay</u>	
Oats	\$.59	Alfalfa-Brome	\$16.00
Barley	.98	Red Clover	12.00
Wheat	1.69	Wild Hay	8.00
Wheat & Oats	.85	Sweet Clover	9.00
Rye	1.04	Brome	9.00
Corn	1.20		
Oats & Peas	.76		
<u>Other Roughages</u>		<u>Milk for Feed</u>	
Corn silage	\$5.00 per ton	Whole milk-Gr. A	\$3.85 per cwt
Grass silage	5.00 per ton	Whole milk-Gr. B	3.35 per cwt
Oats & Oats Mix silage	5.00 per ton	Skim milk	.80 per cwt
<u>Pasture</u>		<u>Home Produce</u>	
\$1.85 an animal unit per month		Milk	.09¢ per qt.
		Cream	.24¢ per pt.
<u>Unpaid family labor</u> \$5.00 per day		Poultry(live)	.11¢ per lb.
		Beef (live)	.21¢ per lb.
<u>Board for hired labor</u> \$2.50 per day		Hogs (live)	.21¢ per lb.
unless otherwise specified		Eggs	.33¢ per doz.

EXPLANATION OF "WORK UNITS"

The total "work units" for any one farm is a measure of the size of that farm business. A work unit as used in this report is the average accomplishment of a farm worker, in a ten hour day, working on crops and productive livestock at an average efficiency. The number of work units for each class of livestock and each acre of crop are presented in Table 25. Days of work off the farm for pay are not included in work units computations in this report.

Table 25. Number of Work Units for each class of livestock & acre of crop

Item	No. of work units	Item	No. of work units
Dairy cows	10.0 per cow	Bees	.33 per hiv
Other dairy cows	3.5 per an. unit*	Small grain	.5 per A.
Beef breeding herd	3.5 per an. unit*	Corn,husked	.7 per A.
Feeder cattle	.25 per 100 lbs.	Corn silage	1.0 per A.
Sheep,farm flock	1.5 per an. unit*	Alfalfa	.6 per A.
Sheep,feeders	.3 per 100 lbs.	Other hay	.4 per A.
Hogs	.2 per 100 lbs.	Legume seed	.4 per A.
Feeder pigs(over 20 lit.)	1.5 per litter	Grass silage	.4 per A.
Feeder pigs(under 20 lit.)	2.0 per litter	Potatoes	2.0 per A.
Hens	20.0 per 100 hens	Sugar beets	3.0 per A.
Turkeys	.5 per 100 lbs.	Fallow	.5 per A.
Turkeys,breeder hens	25.0 per 100 hens		

* Animal unit represents one dairy cow or bull, two other dairy cattle, 1 1/4 beef cows or bulls, 1 feeder steer or heifer, 3-1/3 other beef cattle, 7 sheep, 14 lambs, 2 1/2 hogs, 5 pigs, 50 hens or 1100# turkeys produced.

65
30
712.5

Table 27. Summary of Farm Earnings by Years

Years	1952	1963	1964	1965	1966
Number of farms	85	137	151	202	253
FARM RECEIPTS					
Dairy & dual purpose cattle	\$1214	\$1045	\$ 918	\$1251	\$1754
Dairy products	4204	3631	4030	4105	5457
Beef cattle (incl. feeders)	5320	1744	2640	2625	2515
Hogs	789	750	883	1166	1470
Sheep & wool (incl. feeders)	552	640	378	322	277
Horses (inc. rabbits, dogs, etc.)	5	6	14	37	
Poultry (incl. turkeys)	1041	1651	1929	2310	2199
Eggs	802	682	829	664	581
Honey sold	142	7	103		
Crops	5135	5840	4731	4970	4768
Mach. & equip. sold & gas tax re.	197	316	319	410	269
Income from work off the farm	431	346	323	188	227
Miscellaneous	322	399	537	635	907
(1) Total farm sales	\$20154	17057	17634	18683	20424
(2) Increase in farm capital		3918	1748	2345	4925
(3) Family living from the farm	309	304	264	283	325
(4) Total farm receipts (1)+(2)+(3)	\$20463	21279	19646	21311	25669
FARM EXPENSES					
Dairy & dual purpose cattle bot.	322	235	172	168	398
Beef cattle bot.(incl. feeders)	1448	1266	1137	641	1197
Hogs bought	130	69	56	66	65
Sheep bought (incl. feeders)	69	135	43	40	84
Horses, bees, etc. bought	43	32	26	25	
Poultry bought (incl. turkeys)	278	310	404	425	474
Misc. livestock expense	441	413	457	441	494
Feed bought	2660	2609	2776	3232	3344
Fertilizers	885	614	838	867	924
Other crop expense	828	880	960	1017	917
Custom work hired	630	550	627	659	717
Gas, oil, & grease bot(f.s.)	1118	1061	1042	1002	1118
Rep. of mech. power (f.s.)	611	525	504	523	657
Rep. & upkeep of real estate	156	128	149	148	175
Rep. & upkeep of crop & gen.mach.	388	432	415	418	393
Rep. & upkeep of livestock equip.	88	82	98	95	135
Wages of hired labor	921	707	748	654	612
Electricity expense (f.s.)	279	267	269	262	291
Real estate & pers. prop. Tax.	641	636	675	637	685
General farm expense	253	230	259	272	312
(5) Total cash operating exp.	\$12189	11181	11655	11592	12992
(6) Cap. purchases-mech.pow(f.s.)	509	636	836	911	1080
(7) Cap. purchases-crop&gen.mach	951	745	1019	997	1427
(8) Cap. purchases-lvstk. equip.	235	240	196	195	487
(9) Cap. purchases-bldgs.& fenc.	1284	1645	1628	1255	2004
(10) Total farm pur.(5)to(9)	\$15168	14447	15334	14950	17990
(11) Decrease in farm capital	387	--	--	--	--
(12) Interest on farm capital	2149	1961	2075	2068	2346
(13) Unpaid family labor	158	83	115	96	543
(14) Board furnished hired labor	155	122	146	86	87
(15) Total farm exp.(10)to(14)	\$18017	16614	17670	17200	20966
(16) Labor earnings(4)-(15)	2446	4630	1976	4111	4703
(17) Net cash income(1)-(10)	\$ 4986	2610	2300	3733	2434