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1959 ANNUAL REPORT

CENTRAL MINNESOTA FARM MANAGEMENT SERVICE  
FOR T. V. A. TEST DEMONSTRATION COOPERATORS

Department of Agricultural Economics  
and  
Agricultural Extension Service  
UNIVERSITY OF MINNESOTA

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1959 ANNUAL REPORT OF THE CENTRAL MINNESOTA FARM MANAGEMENT  
SERVICE FOR T. V. A. TEST DEMONSTRATION COOPERATION

Prepared by T. R. Nodland and P. R. Hasbargen

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Introduction

The Agricultural Extension Service and the Department of Agricultural Economics of the University of Minnesota, the Tennessee Valley Authority, and the County Extension Services of four counties in central Minnesota are cooperating in a fertilizer demonstration project and in a farm management service. The service was initiated in 1958. It is available to a selected group of farmers who are willing to demonstrate the value of commercial fertilizers and who have agreed to keep farm business records. The authors wish to express their appreciation to the farmers and the Agricultural Extension Agents for their fine cooperation in making this report possible.

The purpose of this report is (1) to show some of the factors affecting farm income, and (2) to obtain data in regard to farm income and expenses for central Minnesota farms.

The project is under the general supervision of Roland Abraham, Roger Harris, and Paul Hasbargen of the Agricultural Extension Service. Analysis of the farm records and preparation of this report are handled by T. R. Nodland, Department of Agricultural Economics, and Paul Hasbargen, Agricultural Extension Service.

The following tabulation shows by counties, the county agricultural agents and the number of farm records submitted.

<u>County</u>	<u>County Agricultural Agents</u>	<u>No. of records</u>
Crow Wing	Glenn Smith and Ray Norrgard	5
East Otter Tail	Gerald Ness and Sherman Mandt	5
Hubbard	Wm. Dorsey and John Eix	6
Todd	Richard Brand and Erven Skaar	5
Wadena	Miles Rowe	5

Table 1. Summary of Farm Inventories, 1959<sup>1</sup>

Items	Ave. of 26 farms								Farm Number							
	19	9	21	24	7	20	13	5	1	4	8	3				
<sup>1</sup> Size of farms(acres)	335	280	218	365	392	620	286	315	320	305	294	240				
<sup>1</sup> Size of business (work units)*	393	419	379	356	509	528	475	371	306	420	395	330	340			
Dairy cattle	5453	6435	5375	150	8400	5590	7050	2655	3130	6095	6648	4503	4975			
Other livestock	1097	1625	--	5305	--	--	900	3307	--	825	160	580	1741			
Crop, seed and feed	2009	4300	2220	2790	3022	1886	2500	2101	1741	2533	1204	1876	2750			
Auto & truck (share)	608	1134	787	450	742	--	620	1134	900	405	207	--	856			
Tractors	1506	757	3923	850	492	2575	2835	3106	712	3604	642	112	479			
Crop & general mach.	2959	8626	3445	2218	3884	1288	3166	5216	1027	3250	1110	1766	1669			
Livestock equip. & sup.	1152	21	1833	209	111	2526	1613	467	1797	2549	131	1932	369			
Land	7950	12000	6300	6600	7800	4800	8900	6925	3700	1750	7584	5450	9415			
Buildings, fences, etc.	4564	6824	4881	2058	3790	5242	3060	1985	912	4652	4805	2936	3103			
<sup>1</sup> Total farm capital	27298	41722	28764	20630	28241	23908	30644	26896	13919	25663	22491	19155	25357			

End of Year

Dairy cattle	5619	5995	6990	210	9235	6950	8320	--	3255	6970	6830	4326	4985			
Other Live stock	982	330	--	5906	--	--	465	7985	24	--	100	425	871			
Crop, seed & feed	2600	5788	2840	5186	5176	1455	2670	5400	1882	1810	1001	2463	2547			
Auto & truck (share)	720	889	606	360	440	--	1323	945	785	1536	79	--	712			
Tractors	1535	485	3589	655	1880	2145	2481	2793	600	3112	355	230	1495			
Crop & general mach.	3038	10605	3470	2872	3530	1111	3068	4614	1810	3236	1143	1563	1664			
Livestock equip. & sup.	1301	2013	3259	245	130	2376	1423	877	1654	2426	112	1747	391			
Land	7950	12000	6300	6600	7800	4800	8900	6925	3700	1750	7584	5450	9415			
Buildings, fences, etc.	4637	8299	5088	1921	3986	4963	3228	2066	870	7646	4407	2945	2971			
<sup>1</sup> Total farm capital	28382	46404	32142	23955	32177	23800	31878	31605	14580	28486	21611	19149	25051			

<sup>1</sup> Arranged in descending order by labor earnings

\* See Page 17 for an explanation of work units



### Capital Investment

The average value of capital used per farm is shown in table 1. Capital investment per farm varied from \$51,177 to \$12,896. These data represent "book" values and not necessarily current market values. The common practice for both income tax accounting and farm business analysis is to depreciate all capital items each year by an amount equal to their decrease in value as a result of use and obsolescence. Market price, particularly real estate, has been increasing during the last several years. As a result, the value of farm real estate as shown in table 1 tends to be an understatement of its present market value. This is especially true in cases of farms purchased several years ago.

### Farm Earnings

Farm income in this area of the state is relatively low. The 26 farmers included in this report had average farm sales of \$10,856 and farm purchases of \$8,361, or a net cash income of \$2,495 per farm (table 2). Farm purchases amounted to 77 percent of total farm sales, leaving 23 percent to pay family living expenses, interest on indebtedness, and for savings.

Labor earnings, the measure of financial success used in this report, have been computed on a "full owner" basis. Sales and purchases for the whole farm are shown, whether it was operated by an owner or a renter. Labor earnings are the return to the operator for his labor and management after all expenses have been paid, including wages for members of the family other than the operator, and a 5 percent charge on the average value of capital used in the farm business. This places all farms on a uniform basis for comparison.

Two methods of calculating labor earnings are used. Table 2 shows the earnings statement on a cash basis; table 3 shows the earnings on an enterprise or accrual basis. The main 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 (items 13 or 41, table 2). In the enterprise statement, as shown in table 3, the net change in the inventory has been included in each item in order to compute "total returns and net increases" or "total expenses and net decreases" by enterprises. Thus the average returns and net decreases of \$5,939 from dairy cows includes the value of dairy products sold, fed, and used in the home -- with adjustments for changes in the value of the herd. The following is an illustration using the data for dairy cows for Farm No. 19.

Value of dairy products sold	\$6180
Used in the home	225
Fed to livestock	28
Total value of dairy products produced	\$6433
Value of cows on end of year inventory	\$4000
Sales of cows	726
Butchered for home use	0
Total	\$4726
Value of cows on beginning of year inventory	\$4800
Purchases	-
Value of heifers transferred to cow herd	200
Total	\$5000
Net change in value of cows	-274
Returns and net increases from milk cows	\$6159











### Family Income and Expenses

Total cash family living expenses for 15 farm families that kept records of these expenditures amounted to an average of \$2,614 per family (table 6.) In addition, these families used farm produce valued at \$331, or a total of \$2,945 for cash family expenses plus prerequisites. Their average total income available for payment of family living amounted to \$3,857. Thus, the 15 farmers who kept records of family living expenses had an average of about \$900 to use for debt retirement or business expansion after all living expenses were met.

### Return to Capital and Family Labor

Return to capital and family labor, as shown in table 4, represents the amount available to the family. These data represent the operator's share of the farm income. In cases of rented farms, landlord's expenses and receipts have not been included. Interest on indebtedness paid by the farm operator is included as a farm expense. Thus, return to capital and family labor represents the returns to family labor, management, and the operator's equity in the farm capital used in the business.

### Net Worth

Net worth statement for those farmers who kept a complete record of all assets and liabilities are shown in table 5. This is simply a statement of all farm and non-farm assets that a farmer has, balanced against all notes, accounts, mortgages, etc. that constitute his liabilities. It provides an excellent benchmark which can be used to give a true measure of progress through the years. Without this measure it is difficult for a farm family to judge their financial progress. Debt retirement is often considered to be a farm expense, when in reality it adds to the farmer's net worth by decreasing the amount of his liabilities.

The average net worth of the 24 farmers who kept complete records of assets and liabilities in 1959 was \$25,868. These farmers realized an average increase of \$1,244 in net worth during 1959.

Table 4. Returns to Capital and Family Labor (Operator's Share) 1959 1

Items	Ave. of Farm Income	Farm Number 24 farms	19	24	9	7	21	13	20	5	3	1	26
Farm Income													
1. Total farm sales	\$10877	16765	12019	12651	10372	13868	13295	14076	7051	11157	13629	12765	
2. Increase in capital	1245	4682	3935	3377	--	3325	4708	1234	661	--	2823	623	
3. Family living from farm	331	373	234	94	520	353	386	252	280	439	340	217	
4. Total farm receipts	T2453	T1820	T6188	T6122	T0892	T7546	T8389	T5562	T992	T1596	T6792	T3605	
Farm Expenses													
5. Total farm purchases	\$8944	12342	8058	8673	3576	11274	13495	10554	4259	7571	13176	9936	
6. Decrease in capital	--	--	--	--	107	--	--	--	--	307	--	--	
7. Board fur. hired labor	89	--	50	--	--	--	--	465	--	--	--	87	
8. Total farm expenses	9033	T2342	8T08	8673	3683	T1274	T3495	T1019	4259	7878	T3176	T0023	
9. Return to capital and family labor	3420	9478	8080	7449	7209	6272	4894	4543	3733	3718	3616	3582	

Items	Ave. of Farm Income	Farm Number 4	23	8	2	16	22	10	12	25	6	17	15	14
Farm Income														
1. Total farm sales	\$9236	8261	9895	8735	7676	9914	10037	7988	19365	3790	6095	14656	7759	
2. Inc. in capital	--	2563	--	--	42	620	--	2710	3012	--	4551	--	--	
3. Family living from farm	397	398	306	359	364	202	318	372	644	454	47	191	405	
4. Total farm receipts	9633	T1222	T0201	9094	8082	T0736	T0355	T1070	T2021	4244	T0693	T4847	8164	
Farm Expenses														
5. Total farm purchases	\$5493	8003	6645	6099	5791	8415	6352	9372	21997	3335	10669	13320	6252	
6. Dec. in capital	880	--	6	110	--	--	2182	--	--	670	--	1395	3351	
7. Board furnished hired labor	--	--	350	60	--	456	--	--	399	--	--	258	--	
8. Total farm exp.	6373	8003	T7001	6269	T5791	8871	T8534	T9372	T22396	4005	T0669	T4973	T9603	
9. Return to capital and family labor	3260	3219	3200	2825	2291	1865	1821	1698	625	239	24	-126	-1439	

1 Arranged in descending order of return to capital and family labor.





Table 6. Household and Personal Expenses for Those Farmers Who Kept Accounts of These Expenses, 1959<sup>1</sup>

Items	Ave. of 15 farms	Farm Number						
		24	21	22	13	20	26	5
Number of persons--family	5.6	4.0	6.3	4.0	7.0	7.0	6.0	4.0
Adult equivalents--family	4.1	3.8	3.9	3.0	4.9	4.6	4.3	3.6
Other*	.1	.1	--	1.0	--	.8	--	--
<b>Expenses</b>								
Food and meals bought	\$873	1126	985	797	1094	1264	557	793
Operating and supplies	197	52	287	223	162	148	210	181
Furnishings and equipment	133	52	34	148	239	123	50	222
Clothing & clothing materials	272	85	268	246	118	403	183	203
Personal care & spending	125	54	34	25	106	149	31	40
Education & recreation	88	5	19	67	12	32	8	202
Gifts & special events	67	6	44	74	19	72	54	50
Medical & hosp. insurance	214	--	188	345	101	140	27	152
Church & welfare	83	--	70	88	1	30	--	78
Personal share of auto expense	98	154	82	185	20	84	87	48
Upkeep on dwelling	67	127	14	427	--	--	379	38
Personal share of tel. & elec. expense	105	158	234	83	42	91	98	128
Total cash living expense	\$2322	1819	2259	2708	1914	2536	1684	2135
Personal share of new autos	65	--	--	262	--	--	337	190
New dwelling	37	--	560	--	--	--	--	--
Taxes	36	2.5	242	73	2	7	--	42
Life insurance	119	--	103	41	161	112	357	--
Other savings & investments	35	--	65	--	155	--	--	--
Total household & personal cash								
Expense	\$2614	1844	3229	3084	2232	2992	2231	2177
Family living from the farm	331	234	353	202	386	252	217	280
Total cash expense and prerequisites	\$2945	2078	3582	3286	2618	3244	2448	2457
<b>Receipts</b>								
Return to capital and family labor	\$3569	8080	6272	1865	4894	4543	3582	3733
Other personal income	288	--	35	3366	--	191	167	--
Total income	\$3857	8080	6307	5231	4894	4734	3749	3733

<sup>1</sup> Arranged by descending order of return to capital and family labor plus personal income.

\* Hired help or others boarded.

Table 6. Household and Personal Expenses for Those Farmers Who Kept  
Accounts of These Expenses, 1959 (continued)

Items	Farm Number							
	3	4	2	23	8	16	10	6
Number of persons--family	8.0	6.0	6.0	5.0	2.0	4.0	8.0	7.0
Adult equivalents--family	4.8	4.7	3.6	4.6	1.8	3.6	4.8	4.8
Other	--	--	--	--	--	--	--	--
<b>Expenses</b>								
Food and meals bought	\$878	697	854	878	661	248	1743	525
Operating and supplies	388	267	156	129	301	62	322	60
Furnishings and equipment	499	135	84	3	269	5	112	28
Clothing & clothing materials	457	538	239	108	121	41	850	220
Personal care & spending	139	56	96	18	163	33	891	47
Education & recreation	65	370	260	53	36	1	141	46
Gifts & special events	61	54	103	42	116	61	202	46
Medical & hosp. insurance	374	379	228	207	498	14	469	89
Church & welfare	216	420	86	5	61	16	135	40
Personal share of auto expense	63	314	79	158	64	40	76	12
Upkeep on dwelling	--	--	5	--	--	--	--	--
Personal share of tel. & elec. expense	64	136	73	135	78	112	75	75
Total cash living expense	\$3204	3294	2326	1674	2425	599	5053	1207
Personal share of new autos	--	--	170	--	--	--	--	--
New dwelling	--	--	--	--	--	--	--	--
Taxes	14	--	80	20	10	14	--	12
Life insurance	379	194	58	--	188	--	188	--
Other savings & investments	--	120	36	--	--	--	142	--
Total household & personal cash expense	\$3597	3608	2670	1694	2623	613	5383	1234
Family living from the farm	439	397	359	398	306	363	318	454
Total cash expense and prerequisites	\$4036	4005	3029	2092	2929	976	5701	1688
<b>Receipts</b>								
Return to capital and family labor	\$3718	3260	2825	3219	3200	2291	1821	239
Other personal income	--	44	457	43	--	--	--	15
Total income	\$3718	3304	3282	3262	3200	2291	1821	254

Table 7. Family Living from the Farm, 1959<sup>1</sup>

Items	Ave. of 26 farms	19	9	21	24	7	20	13	5	1	4	8	3
No. of adult equivalents:													
Family	4.1	7.0	5.6	3.9	3.8	10.1	4.6	4.9	3.6	3.8	4.7	1.8	4.8
Other*	.1	--	--	--	.1	--	.8	--	--	--	--	--	--
Whole milk	1489	2170	1440	1800	2160	3470	2160	800	1035	2160	1617	765	1460
Cream	74	202	--	--	--	650	1466	--	360	--	--	23	--
Cattle	498	--	--	--	--	--	--	416	900	1000	320	800	900
Hogs	398	1020	--	610	--	--	857	580	240	--	340	325	800
Poultry	38	--	--	110	--	--	--	216	--	--	69	140	352
Eggs	18	--	--	40	--	--	--	--	--	--	--	--	205
Total value	\$311	373	94	353	234	519	252	386	280	340	397	306	438

Items	2	26	22	23	18	16	10	12	11	6	17	15	25	14
No. of adult equivalents:														
Family	3.6	4.3	3.0	4.6	2.8	3.6	4.8	2.6	.3	--	1.8	4.8	1.8	2.2
Other*	--	--	1.0	--	--	--	--	--	--	--	.5	.5	.9	4.9
Whole milk	1100	2700	855	1800	1440	1800	1200	840	240	1470	288	100	1680	2160
Cream	62	--	--	325	--	--	500	360	15	96	35	--	--	360
Cattle	700	--	--	500	--	--	300	800	1200	--	900	--	--	1000
Hogs	400	340	625	300	--	--	--	600	601	198	600	220	800	--
Poultry	lbs.	--	--	--	--	--	--	--	--	--	93	--	--	--
Eggs	doz.	--	--	--	--	--	--	--	--	--	220	--	--	--
Total value	\$359	217	202	398	85	364	318	372	65	454	47	191	644	405

<sup>1</sup> Arranged in descending order of labor earnings.

\* Hired help or others boarded.

### Some Management Factors That Affect Earnings

Some of the variation in earnings from year to year and from farm to farm are due to variations in prices, weather, and other factors over which the farmer has little, if any, control. However, there are many management factors which are largely within the control of a farm operator. Some of these management factors are shown in table 9.

Volume or size of business in terms of work units is probably the most important of these factors. Size of business varied from 628 work units to 270 per farm. Farms with a large business tend to have an advantage in labor efficiency and in control over expenses. A well-balanced crop and livestock program spreads the work load throughout the year and provides for fuller employment of workers.

Control of farm expenses is another important factor. One measure of this is the power, mach., equip., and bldg. expense per work unit shown in table 9. A second measure is that of power and machinery expenses per crop acre as shown in table 12. Another measure can be determined by calculating the proportion of farm sales needed to cover farm expenses. (Table 2: item 40 ÷ item 12). An average of 70-75 percent of the farm sales are usually needed to pay farm expenses. This, however, varies considerably among farmers. High costs relative to gross income holds earnings down on some farms. However, although a farmer should attempt to keep the proportion of farm expenses relatively low, he cannot do this by decreasing those expenses necessary for maintaining an adequate volume of production. Instead, it is usually necessary to increase total expenses in order to increase the volume of sales. The purchase of commercial fertilizers, for example, increases farm expenses. This, in turn, will increase the feed supply under normal weather conditions and make possible the maintenance of a greater number of livestock.

#### 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 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 8.

Table 8. Number of Work Units for Each Class of Livestock and Each Acre of Crop

Class of Livestock	No. of Work Units	Crop	No. of Work Units
Dairy&dual-purpose cows	10.0 per cow	Small grain	.7 per acre
Other dairy & dual-purpose cattle	3.5 per an. unit*	Truck crops	6.0 per acre
Beef breeding herd	3.5 per an. unit*	Potatoes	3.8 per acre
Feeder cattle	.25 per 100 lbs.	Corn-husked	1.1 per acre
Sheep - farm flock	1.5 per an. unit*	Corn-silage	1.7 per acre
Sheep-feeder	.3 per 100 lbs.	Oat silage	.9 per acre
Hogs	.2 per 100 lbs.	Alfalfa hay	.9 per acre
Turkeys	.5 per 100 lbs.	Other hay	.6 per acre
Hens	20.0 per 100 hens	Legume seed	1.0 per acre

\* An animal unit is based on the amount of T. D. N. consumed. One animal unit thus represents 1 dairy cow or bull, 2 other dairy cattle, 1- $\frac{1}{4}$  beef cows or bull, 1 feeder steer or heifer, 3-1/3 other beef cattle, 7 sheep, 14 lambs, 2- $\frac{1}{2}$  hogs, 5 pigs, 50 hens, or 1,100 pounds of turkeys produced.

Table 9. Measures of Farm Organization and Management Efficiency, 1959<sup>1</sup>

Items	Farm Number							
	Ave. of 26 farms	19	9	21	24	7	20	13
Labor earnings	1963	7275	5958	5275	5020	4367	4175	3068
Crop yields*	100	149	135	119	130	72	114	109
Index of return for \$100 feed to prod. livestock**	100	123	131	101	96	139	100	97
Livestock units per 100 acres ***	19.4	19.9	23.3	28.5	16.5	25.0	20.2	15.3
Size of business--								
work units	393	419	379	356	509	528	475	371
Work units per worker	262	246	271	297	242	251	264	235
Power, mach., equip., & bldg. expense per work unit	\$8.16	9.70	8.37	9.25	8.36	4.72	7.67	6.80
Items related to above measures:								
Index of return for \$100 feed from:								
Dairy cattle	100	112	131	--	96	139	86	--
Market Hog Production	100	147	--	102	--	--	97	--
Feeder Pig production	100	--	--	--	--	151	--	--
Sheep	100	--	--	102	--	--	--	--
Chickens	100	--	--	--	--	--	--	--
Number of animal units	44.0	48.6	37.2	72.5	44.8	52.4	49.4	34.2
Work units on crops	96	106	70	119	109	75	120	138
Work units on prod. lvsrk. 280	307	301	237	317	428	338	187	157
Other work units	17	6	8	0	83	25	17	46
No. of family workers	1.3	1.0	1.2	1.1	2.0	2.1	1.0	1.3
No. of hired workers	.2	.7	.2	.1	.1	.2	.1	.1
T. no. of workers	$\frac{1.5}{1.7}$	$\frac{4}{7}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{3}$
Power expense per work unit	\$4.73	4.36	4.30	6.22	4.69	3.01	4.27	3.10
Crop mach. exp. per work unit		3.09	2.72	2.15	2.80	.60	1.52	1.49
Lvsrk. equip. exp. w. u.	.52	.10	.22	.40	.13	.36	.92	.46
Bldgs. & fencing exp. w. u. 1.09	2.15	1.13	.48	.74	.75	.96	1.75	.16

<sup>1</sup> Arranged by descending order of labor earnings.

\* Given as a percentage of the average.

\*\* An index weighted by the animal units of livestock.

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

Table 9. Measures of Farm Organization and Management Efficiency, 1959 (continued)

	Farm Number													
Items	2	26	22	23	18	16	10	12	11	6	17	15	25	14
Labor earnings \$2773	1568	1295	1214	884	650	487	190	104	-287	-683	-790	-1347	-2105	
Crop yields* 87	74	102	74	96	70	75	90	104	94	114	77	87	53	
Index of ret. for \$100 feed to prod. lvs. t.** 97	83	115	116	114	109	121	93	77	87	96	76	79	65	
Lvs. t. units per 100 acres*** 22.0	12.9	20.9	11.2	7.3	13.7	24.8	19.3	25.1	21.7	10.6	26.3	25.7	9.9	
Size of business														
--work units 353	590	270	449	370	331	368	336	372	271	290	442	628	301	
W.u. per worker 294	311	193	264	308	195	307	224	192	246	242	276	299	251	
Power, mach., equip., &bldg. exp. per work unit	\$7.10	8.02	11.15	7.60	7.50	8.60	10.86	10.09	8.17	5.17	9.55	6.90	7.66	12.43
Items related to above measures:														
Index of return for \$100 feed from:														
Dairy cattle 89	90	125	116	114	98	117	99	81	69	96	91	81	74	
Hogs-market hogs	--	--	--	--	99	--	--	--	--	--	--	--	--	
Feeder pigs 120	32	75	--	--	145	80	63	172	--	--	64	70	--	19
Sheep --	--	--	--	--	136	--	--	--	--	--	--	--	62	-
Chickens --	--	--	--	--	--	--	--	--	109	--	--	--	--	
No. of animal units														
Work units on crops	42.7	68.6	27.6	40.4	33.2	37.7	37.2	42.8	43.7	30.6	25.4	60.2	71.9	50.0
W.u. on prod. livestock														
Other w. u.	262	436	208	291	266	203	280	252	294	238	205	278	490	173
No. of family workers	10	--	--	9	3	--	--	--	--	5	--	62	1	--
No. of hired workers	1.2	1.7	1.0	1.7	1.1	1.5	1.2	1.2	1.8	1.1	.9	1.1	1.2	1.2
Total no. of workers	--	.2	.4	--	.1	.2	--	.3	.1	.1	.3	.5	.9	--
Power exp. per work unit	4.58	7.30	3.80	6.05	6.05	5.42	7.00	4.08	3.41	5.80	3.94	3.98	7.56	
Crop mach. exp. per w. u.	1.35	1.96	1.38	1.06	1.16	3.08	2.16	1.94	.75	1.13	1.94	2.06	3.21	
Lvs. t. equip. exp. w. unit	.42	.97	.64	1.29	.84	.55	.43	.33	.52	.27	.41	.21	.68	.07
Bldgs. & fencing exp. w. unit	.85	1.12	1.25	1.13	.45	.84	1.93	.60	1.63	.74	2.21	.81	.94	1.59

Table 10. Distribution of Acres in Farm, 1959<sup>1</sup>

Crop	Ave. of 26 farms	Farm Number												
	19	9	21	24	7	20	13	5	1	4	8	3		
Oats for grain and silage	38.8	62.	35.5	19	57	10	54	60	45.5	60.5	24.5	34	25	
Other small grains	2.3	--	--	13	--	15	--	--	--	--	--	--	--	25
Total small grains	41.1	62.	35.5	32	57	25	54	60	45.5	60.5	24.5	34	25	
Corn grain	32.3	63.	16.	95	22	--	12	97	--	25.	7.	22	34	
Corn silage & fodder	20.7	--	23.	--	20	50	20	--	25.	20.	21	17	12	
Total cultivated crops	53.0	63.	39.	95	42	50	32	97	--	45.	28	39	46	
Alfalfa & alfalfa mix hay	29.7	50.	21.5	61	42	--	65	66	20	--	33.5	44	23	
Red clover hay	2.9	--	--	49	--	--	--	18	--	--	--	--	--	
Timothy or bromé hay	9.4	--	12.	--	--	69	--	--	--	--	44	--	4	
Other hay & seed crops	12.9	--	--	--	--	--	33	--	--	10	--	--	--	
T. tillable land in hay	54.9	50.	33.5	61	91	69	98	66	38	10	77.5	44	27	
Alfalfa & alfalfa mix. pasture	7.8	--	--	8	--	--	25	--	--	--	32	15	--	20
Other tillable pasture	16.0	49.	12.	45	32	25	--	--	6.5	25	43	32	--	
Total tillable land in pasture	23.8	49.	12.	53	32	25	--	--	6.5	25	43	47	--	
Soil bank	8	--	--	--	--	23	--	--	--	--	10	10	--	
Tillable land not cropped	5.3	--	--	120	241	222	192	184	223	90	19.5	13	--	
Total tillable land	178.9	224	120	241	222	192	184	223	90	160	183	187	98	
Wild hay	9.3	--	--	13	--	--	30	--	30	--	8	--	--	
Non-tillable pasture, roads, waste, and farmstead	59.5	20	40	13	50	18	30	--	120	90	66	--	17	
Total acres in farm	334.7	280	218	365	392	620	286	315	320	305	294	240	45	160
Percent land tillable	53	80	55	66	57	31	64	71	28	52	62	78	61	

<sup>1</sup> Arranged in descending order of labor earnings.

Table 10. Distribution of Acres in Farm, 1959 (continued)

Crop	Farm Number													
	2	26	22	23	18	16	10	12	11	6	17	15	25	14
Oats for grain and silage	30	85	32.7	47.5	52	28	25	32	32	5	49	25.0	57	20
Other sm. grains	--	--	11.0	--	--	--	--	--	--	--	--	5.0	--	19
T. sm. grain	30	85	32.7	58.5	52	28	25	32	32	--	49	30.0	57	39
Corn grain	14	10	18	102	6	37*	--	17	42	--	24	53	57	68
Corn sil. or fodder	28	46	12	30	20	23	55	18	16	12	17	22	28	27
T. cult. crops	42	56	30	132	26	60	55	35	58	12	41	75	85	95
Alfalfa and alfalfa mixed hay	35	20	35	30	17	50	25	51	18	13.5	--	--	--	50
Red clover hay	8	--	--	--	--	--	--	--	--	--	--	--	--	--
Timothy or brome hay	--	--	--	--	8	--	--	5	--	3	61	30	--	9
Other hay & seed crops	--	117	1	--	18	46	--	--	--	4	6	--	101	--
Total tillable land in hay	43	137	36	30	43	96	25	56	18	20.5	67	30	101	.59
Alfalfa & alfalfa mix. pasture	1	--	--	--	18	91	--	--	--	--	--	35	23	--
Other till. pasture	--	33.5	13	22	--	--	--	5	--	--	35	23	--	42
Total tillable land in pasture	1	--	33.5	13	40	91	--	5	--	5	35	23	37	42
Soil bank	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tillable land not cropped	--	30	--	--	--	--	--	--	--	17	--	23	125	--
Total tillable land	116	308	133.2	233.5	161	275	105	128	125	42.5	215	170.5	280	235
Wild hay	10	--	--	--	75	--	15	14	14	6	--	40	--	--
Non-tillable pasture	68	222	--	126	120	--	30	75	35	92.5	25	18	--	270
Timber not pastured, roads, waste, & farmstead	46	30	27.8	190.5	258	56	30	23	66	4	87	211.5	40	54
Total acres in farm	240	560	160	550	614	331	180	240	145	327	440	320	559	
Percent land tillable	48	55	83	42	26	83	58	53	52	29	66	39	88	42

\* Includes 5 acres of Rutabagas.

Table 11. Crop Yields per Acre, 1959<sup>1</sup>

Crop	Ave. of farms raising each				Farm Number							
	crop	19	9	21	24	7	20	13	5	1	4	8
Oats silage, tons	6.8	--	--	--	--	--	--	--	.1	--	4.5	--
Oats grain, bu.	40.6	38.1	70.0	44.2	60.4	14.0	46.9	44.6	66.5	32.6	26.8	45.3
Corn grain, bu.	39.5	64.8	50.0	41.6	46.4	--	50.0	51.7	--	44.3	57.0	32.7
Corn silage, tons	6.1	--	6.8	--	8.0	4.0	10.0	--	--	8.3	5.8	2.9
 <b>Alfalfa &amp; alfalfa mix.</b>												
hay, tons	1.5	3.0	2.0	2.1	1.5	--	1.5	1.2	2.2	--	1.3	1.9
Timothy & bromegrass hay,	--	--	0.8	--	--	.8	--	--	--	--	1.0	--
tons	1.1	--	--	--	--	--	--	--	--	--	--	1.8
Annual hay, tons	1.3	--	--	--	--	--	--	--	1.7	--	--	--
Wild hay, tons	.9	--	--	--	--	.8	--	.3	--	.6	--	--

Crop	Farm Number											14	
	2	26	22	23	18	16	10	12	11	6	17	15	
Oats sil., tons	11.7	3.5	5.0	--	--	--	--	--	--	--	--	--	--
Oats grain, bu.	34.2	18.5	50.0	17.9	48.5	43.2	32.0	50.0	31.3	51.6	90.6	12.0	32.0
Corn grain, bu.	24.3	45.0	50.0	35.8	30.0	24.9	--	29.4	28.6	--	27.1	42.3	30.8
Corn silage, tons	5.0	5.2	5.0	5.1	6.0	3.0	6.0	6.7	10.5	4.6	5.3	5.5	8.6
 <b>Alfalfa &amp; alf. mix.</b>													
hay, tons	1.3	.5	1.4	.7	.6	.9	.3	.9	2.5	1.5	--	--	--
Timothy & bromegrass hay,	--	--	--	--	1.5	--	--	2.0	--	.5	.6	.5	--
tons	--	--	--	--	--	--	--	--	--	.5	.6	.5	--
Annual hay,	--	--	2.5	--	.8	--	1.0	--	--	--	.5	--	--
Wild hay, tons	2.0	--	--	1.5	--	1.0	--	.4	1.8	.4	--	.2	--

<sup>1</sup> Arranged by descending order of labor earnings.

Table 12. Power and Machinery Expenses per Crop Acre, 1959

Items	Ave. of 26 farms	Farm Number											
		19	9	21	24	7	20	13	5	1	4	8	3
Crop acres per farm	158	175	108	188	190	144	214	223	113.5	115.5	138	117	98
Tractor exp. per crop acre	\$4.65	4.58	5.50	5.15	7.04	7.44	2.62	2.00	4.13	7.38	3.95	2.24	5.30
Crop & gen. mach. exp. per crop acre	4.64	7.23	9.55	3.64	7.50	2.20	3.14	2.36	6.58	4.47	3.84	5.14	4.55

Items	2	26	22	23	18	16	10	12	11	6	17	15	25	14
Crop acres per farm	125	278	98.5	220.5	196	184	120	137	122	43.5	157	175	243	193
Tractor exp. per crop acre	3.41	4.42	6.21	4.89	3.40	4.82	8.23	6.88	6.90	4.83	3.87	1.23	4.44	4.26
Crop & gen. mach. exp. per crop acre	3.92	2.84	5.26	2.81	1.99	2.08	9.18	5.07	5.80	4.51	2.08	4.67	5.25	5.00

Table 13. Average Price of Feeds, 1959

Items	Value	Item	Value
Ear corn, per bu.	\$ .98	Alfalfa hay, per ton	\$19.75
Oats, per bu.	.58	Red or alsike clover hay, per ton	16.75
Barley, per bu.	.92	Timothy, per ton	11.50
Wheat, per bu.	1.90	Wild hay, per ton	9.75
Bran, per cwt.	2.60	Corn silage, per ton	6.60
Soybean meal, per cwt.	3.85	Pasture, per mo. per cow	2.50
Meat scraps, per cwt.	5.17	Skim milk per cwt.	.31

Table 14. Factors of Cost and Returns from Dairy Cows, 1959 1

Items	Ave. of 24 farms		Farm Number										26
	1	15	17	24	5	9	3	20	19	8			
Pounds of butterfat per cow	322	418	413	394	376	366	361	356	346	341	337		
Pounds of milk per cow	9312	11505	11512	9016	11539	11398	9731	10192	9767	9318	9214	9711	
Ave. test of milk (percent)	3.6	3.6	3.6	4.4	3.4	3.3	3.8	3.5	3.6	3.7	3.7	3.5	
Price per lb. BF sold (cents)	89.8	97.0	84.4	81.2	84.8	87.9	96.3	88.3	99.5	83.9	99.6	101.2	
Price per cwt. milk sold	3.27	3.52	3.03	3.55	2.88	2.89	3.62	3.09	3.63	3.08	3.68	3.51	
Feed per cow, lbs:													
Corn	864	3694	452	1189	341	--	1532	1042	503	552	527	90	
Small grain	1168	2084	413	358	2667	3550	913	181	1959	1405	4012	743	
Commercial feeds	632	904	3226	1004	441	101	616	268	1020	68	502	2260	
Legume hay	3908	2857	1075	4469	4878	6554	3270	8485	5225	5000	4302	--	
Other hay	1090	1345	914	2123	--	1849	--	--	--	1667	--	4334	
Total concentrates	2664	6682	4091	2551	3449	3651	3061	1491	3482	2025	5041	3093	
Total hay	4998	4202	1989	6592	4878	8403	3270	8485	5225	6667	4302	4334	
Silage	9993	10084	12688	4469	8943	5714	9886	8303	13061	5405	5116	21796	24
Feed cost per cow:													
Concentrates	59.18	133.70	105.54	59.32	72.33	70.34	70.92	36.31	97.37	38.34	104.91	64.43	
Roughages	75.22	72.70	57.74	58.06	77.68	92.01	61.24	111.19	76.84	75.45	61.81	102.85	
Pasture	10.04	10.50	9.95	11.87	11.87	10.71	9.50	10.15	8.47	15.20	11.48	8.59	
Total feed cost	144.44	216.90	173.23	129.25	161.39	173.06	141.66	157.65	182.68	128.99	178.20	175.87	-
Value of produce per cow:													
Dairy product sales	274.61	375.02	323.98	267.41	325.57	316.25	348.36	295.16	341.45	278.37	324.68	308.27	
Used in home	6.25	5.90	3.67	1.22	5.44	8.94	3.56	6.19	5.54	10.13	3.20	5.18	
Fed	10.19	18.47	20.50	51.02	1.01	6.32	--	14.91	5.07	1.26	8.90	21.55	
Net, inc. in value of cows	-1.51	6.59	-12.62	-13.28	-7.64	4.21	3.45	-2.80	2.88	-12.33	33.88	-45.04	
Total value produced	289.54	405.98	335.53	306.37	324.38	335.72	355.37	313.46	354.94	277.43	370.66	289.96	
Ret. above feed cost per cow:	145.10	189.08	162.30	177.12	162.99	162.66	213.71	155.81	172.26	148.44	192.46	114.09	
Returns for \$100 of feed	\$201	187	194	237	201	194	251	199	194	215	208	165	
Feed cost per lb. BF (cents)	45.1	51.9	41.9	32.8	41.2	46.0	38.7	43.7	51.3	37.3	52.3	52.2	
Number of cows	22.0	23.8	18.6	17.9	24.6	11.9	26.3	16.5	24.5	22.2	17.2	32.3	

1 Arranged in descending order of pounds of butterfat per cow.

Table 14. Factors of Cost and Returns from Dairy Cows, 1959 (continued)

Items	Farm Number												
	18	2	4	16	22	10	25	11	7	12	23	14	6
Lbs. of b. f. per cow	334	325	311	309	305	302	299	284	271	267	262	210	139
Lbs. of milk per cow	10270	9316	9104	9559	8223	8758	8623	8744	6123	7425	--	5806	--
Ave. test of milk (pct.)	3.3	3.5	3.4	3.2	3.7	3.4	3.5	3.2	4.4	3.6	5.0	3.6	3.6
Price per lb. B. F. sold (cents)	101.4	86.0	85.8	101.4	99.4	85.7	107.0	87.2	92.0	83.5	77.0	78.6	65.2
Price per cwt. milk sold	3.29	2.99	2.93	3.28	3.69	2.91	3.70	2.83	4.08	3.00	--	2.79	--
Feeds per cow, lbs.:													
Corn	1454	--	1400	790	1174	611	738	1647	432	743	1294	519	--
Small grain	1801	376	706	1547	640	889	569	497	504	1015	336	468	389
Commercial feeds	87	930	554	752	774	54	425	370	234	410	114	--	69
Legume hay	1948	6824	5085	4437	--	2364	7707	7311	2021	3610	924	1667	3771
Other hay	3506	--	678	--	4457	--	--	588	--	1561	--	3148	--
Total concentrates	3342	1306	2660	3089	2588	1554	1732	2514	1170	2168	1744	987	458
Total hay	5454	6824	5763	4437	4457	2364	7707	7899	2021	5171	924	4815	3771
Silage	7792	18235	12966	7285	11657	19091	8780	10925	8245	8780	8067	7407	5143
Feed cost per cow:													
Concentrates	61.13	29.42	56.75	72.24	68.98	30.50	55.05	51.25	31.75	45.40	34.01	20.15	10.18
Roughages	62.61	121.84	95.38	57.32	76.90	86.34	86.78	110.05	42.37	72.43	35.86	55.55	54.21
Pasture	10.71	10.88	9.32	11.59	7.28	12.61	--	10.92	10.64	8.17	11.03	11.58	8.57
Total feed cost	T34.45	T62.14	T161.45	T141.15	T53.16	T29.45	T41.83	T72.22	T84.76	T26.00	T80.90	T87.28	T72.96
Value of produce per cow:													
Dairy product sales	327.28	258.56	246.13	304.82	294.53	240.77	306.62	241.25	233.11	220.25	185.81	142.07	84.87
Used in home	3.68	5.26	6.85	7.75	4.89	7.18	3.63	1.22	7.01	4.39	9.57	18.50	11.19
Fed	5.39	16.80	15.83	--	4.17	10.12	9.09	5.09	7.39	--	12.93	7.07	1.75
Net. inc. in value of cows	41.77	29.35	45.70	3.88	-7.69	17.38	-44.30	19.83	-4.76	-13.38	-16.27	-49.16	-16.00
T. value produced	378.12	309.97	314.51	316.45	295.90	275.45	275.04	267.39	242.75	211.26	192.04	118.48	81.81
Ret. above feed cost per cow:	243.67	147.83	153.06	175.30	142.74	146.00	133.21	95.17	157.99	85.26	111.13	31.20	8.85
Returns for \$100 of feed	\$281	191	190	224	193	213	194	155	286	168	237	136	112
Feed cost per lb.													
B. F. (cents)	40.3	49.9	51.9	45.7	50.2	42.9	47.4	60.6	31.3	47.2	30.9	41.6	52.5
Number of cows	23.1	17.0	23.6	15.1	17.5	22.0	41.0	23.8	37.6	20.5	23.8	10.8	17.5

\* Information not reported.

Table 15. Feed Costs and Returns from Other Dairy Cattle, 1959<sup>1</sup>

Items	Ave. of 24 farms						Farm Number					
	1	15	17	24	5	9	3	20	19	8	26	
Feed per head, lbs.:												
Concentrates	273	499	824	513	241	770	185	106	585	140	179	28
Hay and fodder	2158	1915	1462	4189	1531	1127	2110	2625	3309	1608	2951	1793
Silage	2778	2248	5848	1351	3556	939	3303	3750	9559	1005	--	793
Skim milk	--	--	--	--	--	--	--	--	--	--	--	--
Whole milk	321	595	772	1743	21	132	--	531	158	48	166	415
Total feed costs per head	47.11	50.24	80.09	109.00	42.46	32.99	38.39	61.68	78.21	32.39	42.26	40.59
Net increase in value	82.91	112.17	106.18	82.68	70.87	83.90	116.17	84.97	91.97	79.93	75.85	77.82
Return above feed cost	35.80	61.93	26.09	-26.32	28.41	50.91	77.78	23.29	13.76	47.54	33.59	37.23
Return for \$100 of feed	\$195	223	133	76	167	254	303	138	118	247	179	192
Number of head of cattle	24.1	25.8	17.1	14.8	40.5	21.3	21.8	16.0	27.2	19.9	30.5	58.0

Items	Farm Number						Farm Number					
	18	2	4	16	22	10	25	11	7	12	23	14
Feed per head, lbs.:												
Concentrates	216	161	223	80	522	185	173	651	58	82	135	--
Hay and fodder	5248	3060	2286	2086	816	1250	3287	1478	943	1556	497	2121
Silage	2475	2612	--	535	--	4545	3287	3652	3771	3333	4184	3030
Skim milk	--	--	--	--	--	--	--	--	--	--	--	2881
Whole milk	213	327	335	--	246	450	354	187	259	--	274	391
Total feed costs per head	50.04	45.29	33.83	31.10	35.80	47.22	54.44	42.61	38.00	28.89	37.78	33.77
Net inc. in value	20.59	58.34	42.82	28.32	231.22	123.86	30.67	77.16	78.63	98.75	68.20	61.13
Ret. above feed cost	-29.45	13.05	8.99	-2.78	195.42	76.64	-23.77	34.55	40.63	69.86	30.42	27.36
Return for \$100 of feed	\$41	129	127	91	646	262	56	181	207	342	181	201
Number of head of cattle	20.2	26.8	38.5	18.7	9.8	17.6	36.5	23.0	29.7	18.0	28.2	6.6

<sup>1</sup> Arranged by descending order of pounds of butterfat per cow.

Table 16. Feed Costs and Returns from All Dairy Cattle, 1959

Items	Ave. of 24 farms	Farm Number											
		1	15	17	24	5	9	3	20	19	8	26	
Feeds per animal unit, lb.:													
Concentrates	1893	4684	3315	2105	2112	2648	2273	1073	2657	1483	2845	1656	
Hay and fodder	4732	4071	2279	7114	4063	5487	3548	7429	5722	5590	5062	3980	
Silage	8306	8120	12353	3953	8125	3893	8925	8041	15223	4348	2716	12235	
Total feed cost per animal unit	118.68	164.01	154.79	119.11	126.45	118.89	122.65	136.41	170.04	108.08	129.66	119.72	
Value of prod. per animal unit													
Dairy products	182.18	247.03	224.05	190.06	181.76	171.23	248.80	202.95	223.13	198.90	174.06	165.16	
Net inc. in value of cattle	53.19	83.13	58.12	38.97	59.87	81.29	70.52	53.61	67.51	40.90	89.39	49.90	
Total value produced	\$235.37	330.16	282.17	229.03	241.63	252.52	319.32	256.56	290.64	239.80	263.45	215.06	
Ret. above feed per an. unit	\$116.69	166.15	127.38	109.92	115.18	133.63	196.67	120.15	120.60	131.72	133.79	95.34	
Return per \$100 of feed	\$199	201	182	192	191	212	260	188	171	222	203	180	
Animal units of cattle	34.1	36.7	27.2	25.3	44.8	22.6	37.2	24.5	38.1	32.2	32.4	61.3	27
Items	18	2	4	16	22	10	25	11	7	12	23	14	6
Feeds per animal unit, lb.:													
Concentrates	2457	872	1667	1965	2250	1216	1307	2119	873	1556	1195	756	343
Hay and fodder	6988	6513	5233	4327	3839	2403	7364	6289	1985	4542	950	4681	4102
Silage	6927	12500	7150	4898	9108	16234	8108	9745	8053	8136	8179	7092	5299
Total feed cost per animal unit	120.24	121.21	110.72	110.73	132.06	112.22	125.49	140.45	77.05	105.18	70.80	77.24	75.23
Value of prod. per animal unit													
Dairy products	230.27	147.53	139.49	192.65	233.92	177.11	214.87	163.48	172.30	156.11	122.69	122.99	71.84
Net inc. in value of cattle	41.59	67.85	63.72	24.01	95.15	83.19	-11.78	63.65	41.15	50.95	40.53	-9.04	32.27
Total value produced	271.86	215.38	203.21	216.66	329.07	260.30	203.09	227.13	213.45	207.06	163.22	113.95	104.11
Ret. above feed per animal unit	151.62	94.17	92.49	105.93	197.01	148.08	77.60	86.68	136.40	101.88	92.42	36.71	28.88
Return per \$100 of feed	\$226	178	184	196	249	232	162	162	277	197	231	148	138
Animal units of cattle	33.2	30.4	42.8	24.5	22.4	30.8	59.2	35.3	52.4	29.5	37.9	14.1	23.4

Table 17. Feed Costs and Returns from Market Hogs, 1959<sup>1</sup>

Items	Ave. of 7 farms	Farm Number					
		19	16	21	4	13	3
<b>Feed per cwt. hogs produced, lbs.:</b>							
Corn	281	280	582	307	175	288	252
Small grain	111	32	--	118	31	106	176
Commercial feeds	51	35	22	30	108	64	42
Total concentrates	443	347	604	455	314	458	470
Feed cost per cwt. hogs produced	\$9.58	7.56	11.43	9.82	7.34	8.92	10.58
Net increase in value per cwt. hogs produced	\$13.32	15.95	16.24	14.42	11.91	12.42	12.75
<b>RETURNS ABOVE FEED COST PER CWT. HOGS PRODUCED</b>							
RETURNS FOR \$100 OF FEED	\$3.74	8.39	4.81	4.60	4.57	3.50	2.17
Price received per cwt. hogs sold	\$144	211	142	147	162	139	121
Average weight per hog sold	\$14.60	14.46	15.65	14.42	15.75	13.51	13.91
Total no. of litters raised	214	238	212	243	109	248	215
No. of pigs born per litter	17.0	9	0	43	2	47	14
No. of pigs weaned per litter	7.2	8.2	--	8.2	8.0	8.9	9.9
Pounds of hogs produced	6.2	5.6	--	6.5	7.0	7.1	8.9
	27985	19950	2475	76390	2555	66605	25860
							2060

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<sup>1</sup> Arranged by descending order of return above feed cost per cwt. of hogs produced.

Table 18. Feed Costs and Returns from Feeder Pigs, 1959<sup>1</sup>

Items	Ave. of 11 farms	10	6	20	2	1	12	22	25	15	11	26
Feed per litter, lbs.:												
Corn	2498	1820	831	245	739	1179	2444	2464	3005	8839	1237	4676
Small grain	770	827	992	690	443	211	1294	768	1707	400	1013	120
Commercial feeds	632	216	75	284	311	97	940	2538	129	1821	433	112
Total concentrates	3900	2863	1898	1219	1493	1487	4678	5770	4841	11,060	2683	4908
Feed cost per litter	\$84	58	39	33	38	30	107	151	93	229	57	89
Net increase in value per litter	\$108	131	106	78	71	60	134	177	101	230	56	45
RETURN ABOVE FEED COST PER LITTER	\$24	73	67	45	33	30	27	26	8	1	-1	-44
Return for \$100 of feed	\$156	226	269	236	187	203	125	117	109	100	98	50
Total number of litters	14.3	6	8	32	26	19	14	5	15	12	12	8
Number of pigs born per litter	8.9	9.7	8.8	8.4	9.1	10.3	10.2	9.2	6.1	9.7	9.4	7.5
Number of pigs weaned per litter	7.5	8.7	6.1	6.3	7.5	8.8	8.8	9.0	5.5	8.1	8.8	4.9
Number of feeder pigs sold	80	52	46	192	187	168	53	28	34	58	40	20
Price received per pig sold	\$8.81	8.12	7.78	10.50	9.18	9.30	7.92	12.32	4.96	10.26	7.84	8.70
Number of sows sold and butchered	9	13	6	13	5	10	1	3	12	23	5	4
Number other hogs sold and butchered	24	4	5	9	1	0	56	11	73	88	6	10
Pounds of hogs and pigs produced	7704	5830	3829	6623	6925	5410	14181	4705	6039	21950	4004	5245

<sup>1</sup> Arranged by descending order of return above feed cost per litter.

Table 19. Fertilizer Application, Crop Yields, and Return  
Over Cost of Fertilizer, 1959<sup>1</sup>

Farm Number	Pounds of Fertilizer Applied per Acre			Yields	Per Acre*	Difference in yield	Return from difference in yield over cost of fertilizer **
	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Check	Fertilized		
<u>Corn-Grain</u>							
3	54.6	-34.2	-19.2	31.4	69.1	37.7	\$26.92
4	39	23	75	37.4	64.2	26.8	16.24
17	22.5	22.5	22.5	30.5	46.6	16.1	10.15
23	51	25	132	37.6	56.6	19.0	3.50
4	39	23	75	44.9	54.9	10.0	-1.39
14	30	30	30	26.1	30.1	4.0	-4.81
3	33.7	24.0	115.5	54.1	61.9	7.8	-5.01
9	15	15	75	52.7	55.0	2.3	-5.09
<u>Corn Silage</u>							
20	15	15	75	12.8	27.5	14.7	95.89
12	12	12	72	6.9	11.7	4.8	27.00
3	52	17	60	8.7	14.1	5.4	25.30
4	46	30	22	6.8	9.5	2.7	10.94
11	30	15	67	12.7	15.6	2.9	10.92
6	48	24	132	9.0	12.4	3.4	7.60
12	36	20	72	8.8	11.2	2.4	5.80
8	26	16	41	6.4	8.1	1.7	4.35
16	22	7	30	8.3	9.2	.9	.45
6	30	10	72	10.4	11.2	.8	-3.65
11	24	24	99	5.5	6.5	1.0	-3.95
<u>Oats</u>							
19	24	8	48	30.1	54.4	24.3	6.53
3	12	12	12	36.6	52.8	16.2	5.27
25	6	6	30	39.7	48.7	9.0	1.94
8	15	15	15	24.4	35.3	10.9	1.51
2	30	30	30	41.1	59.8	18.7	1.29
4	45	15	0	24.9	36.2	11.3	-2.00
10	45	15	0	47.5	50.8	3.3	-6.45
11	30	30	90	16.9	25.0	8.1	-7.58
15	30	30	30	19.0	20.7	1.7	-8.09
1	37	37	37	20.1	22.5	2.4	-9.75
24	30	10	60	77.3	63.0	-14.3	-16.33
6	60	20	90	44.3	31.7	-12.6	-22.46

<sup>1</sup> Harris, Roger and Hasbargen, Paul. "The 1959 Report on Test Demonstration Farms in Minnesota", Unpublished report, Agricultural Extension Service, Institute of Agriculture, University of Minnesota. April 1960. This table includes data from all fertilizer fields which had unfertilized check strips in 1959.

\* Silage yields are given in tons; Corn-grain and oats yields in bushels.

\*\* Prices used in calculating return from difference in yield over cost of fertilizer were: Corn-grain-\$1.05/bu; Corn Silage-\$7.00/ton; Oats-\$ .55/bu; Nitrogen-\$ .15/lb; phosphorus-\$ .10/lb and Potash-\$ .05/lb.