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1963 ANNUAL REPORT

**Central Minnesota
Farm Management
Service for T.V.A.
Test Demonstration
Cooperators**

UNIVERSITY OF MINNESOTA

**Department of Agricultural Economics
and Agricultural Extension Service**

..... Institute of Agriculture - St. Paul 1, Minnesota

1963 ANNUAL REPORT, T. V. A. TEST DEMONSTRATION FARMS
Prepared by T. R. Nodland and P. R. Hasbargen (1)

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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 five 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, Paul Hasbargen, and Curtis Overdahl 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 James Rabehl	2
East Otter Tail	Gerald Ness and Sherman Mandt	4
Hubbard	William Dorsey and John Eix	2
Todd	Richard Brand and Loyal Hyatt	3
Wadena	Miles Rowe	5

(1) The authors are indebted to Janet Otis and Dorothy Spreck for their assistance in the preparation of this report.

Table 1. Summary of Farm Inventories, 1963 (1)

Items	Ave. of 16 farms	Farm Number								
		25	19	1	3	18	2	27	20	4
Size of farms (acres)	365	538	282	465	266	547	240	100	420	268
Size of business (work units)*	491	876	414	644	405	540	377	459	560	447
Beginning of Year										
Dairy cattle	\$7666	\$14100	\$5565	\$9385	\$6085	\$9005	\$2870	\$8340	\$11000	\$6740
Other livestock	938	1361	1280	110	829	-	665	1320	-	168
Horses	96	-	-	1540	-	-	-	-	-	-
Crop, seed and feed	3193	4527	4255	3328	4756	2871	2297	2800	2195	2846
Auto & truck (share)	914	957	1728	1660	2080	640	202	-	240	2637
Tractors	1261	2267	920	1625	838	958	2310	105	1894	939
Crop & general mach.	3786	6046	13477	3605	748	2996	1413	4195	3839	1074
Livestock equipment	1514	3535	2330	2534	1236	3114	-	691	1730	2438
Land	10139	33000	12000	5978	14715	4400	9840	10000	10212	7084
Buildings, fences, etc.	5583	8414	8771	9455	5315	3415	4070	5372	2631	6213
Total capital managed	\$35090	\$74207	\$50326	\$39220	\$36602	\$27399	\$23667	\$32823	\$33741	\$30139
End of Year										
Dairy cattle	\$8178	\$15245	\$6695	\$10690	\$5800	\$10270	\$3395	\$8450	\$11600	\$7260
Other livestock	993	460	1173	230	1103	-	-	1752	-	27
Horses	346	-	-	5540	-	-	-	-	-	-
Crop, seed and feed	3455	6835	5311	4150	3865	2605	2793	2267	3060	2912
Auto & truck (share)	924	1477	1480	1119	1736	480	-	-	75	2120
Tractors	1189	1932	3162	1274	698	700	1980	88	1418	704
Crop & general mach.	3501	5944	13155	2923	1204	2535	1224	3691	2920	715
Livestock equipment	1417	3110	2666	2285	906	2608	1470	621	1352	2270
Land	10139	33000	12000	5978	14715	4400	9840	10000	10212	7084
Buildings, fences, etc.	5387	8154	8293	8757	5033	3641	3783	5049	2466	5968
Total capital managed	\$35529	\$76157	\$53935	\$42946	\$35060	\$27239	\$24485	\$31918	\$33103	\$29060

(1) Arranged in descending order by labor earnings.

* See page 17 for an explanation of work units.

Table 1. Summary of Farm Inventories, 1963 (continued)

Items	Farm Number						
	7	24	26	23	16	12	8
Size of farms (acres)	620	360	400	452	315	320	240
Size of business (work units)	648	501	601	525	310	350	194
	Beginning of Year						
Dairy cattle	\$8365	\$9140	\$14700	\$5575	\$4910	\$5300	\$1575
Other livestock	-	-	-	-	805	4130	4353
Horses	-	-	-	-	-	-	-
Crop, seed and feed	2562	3244	3450	3466	1750	5045	1693
Auto & truck (share)	120	-	2120	100	-	1536	600
Tractors	1410	694	1479	1610	82	2780	261
Crop and general machinery	719	5398	4760	5670	812	5060	758
Livestock equipment	2201	274	2010	544	1311	194	74
Land	4800	5800	5000	9940	8000	16000	5450
Buildings, fences, etc.	4128	3039	6183	9360	3006	7509	2455
Total capital managed	\$24305	\$27589	\$39702	\$36265	\$20676	\$47554	\$17219
	End of Year						
Dairy cattle	\$8605	\$10330	\$16100	\$6255	\$4400	\$5000	\$750
Other livestock	-	-	-	1095	842	5535	3666
Horses	-	-	-	-	-	-	-
Crop, seed and feed	1581	3040	4450	3775	720	5764	2156
Auto & truck (share)	-	1018	1670	-	-	3128	477
Tractors	871	339	1878	1352	39	2414	182
Crop & general machinery	651	4051	5428	5788	681	4260	841
Livestock equipment	1765	193	1583	461	1183	143	54
Land	4800	5800	5000	9940	8000	16000	5450
Buildings, fences, etc.	3819	2823	7477	8732	2826	7139	2238
Total capital managed	\$22092	\$27594	\$43586	\$37398	\$18691	\$49383	\$15814

Capital Investment

The average value of capital used per farm is shown in Table 1. Capital investment per farm varied from \$76,157 to \$15,814. 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 capital items each year by an amount equal to their decrease in value as a result of use and obsolescence. Market prices, particularly real estate, have 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 16 farmers included in this report have average farm sales of \$13,547 and farm purchases of \$8,615, or a net cash income of \$4,932 per farm (Table 2). Farm purchases amounted to 64 percent of total farm sales leaving 36 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 (item 14 or 43, 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 increase" or "total expenses and net decreases" by enterprises. Thus the average returns and net decreases of \$8,336 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 a dairy farm:

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

Table 2. Summary of Farm Earnings (Cash Statement) 1963 (1)

Items	Ave. of	Farm Number				
	16 farms	25	19	1	3	18
<u>Farm Receipts</u>						
1. Dairy cattle	\$2178	\$2342	\$1393	\$3627	\$2228	\$2251
2. Dairy products	7932	16624	7527	9200	6457	10042
3. Beef cattle	245	-	-	-	-	-
4. Hogs	1172	1601	5116	137	3438	-
5. Sheep	277	-	-	142	-	-
6. Horses	4	-	-	70	-	-
7. Poultry	-	-	-	-	-	-
8. Eggs	14	-	-	-	-	-
9. Crops	788	2591	1432	1128	1121	207
10. Mach. & equipment sold	252	403	1430	176	455	99
11. Income from work off farm	269	110	70	1077	-	757
12. Miscellaneous	417	983	507	20	689	895
13. Total farm sales	\$13548	\$24654	\$17475	\$15577	\$14388	\$14251
14. Increase in farm capital	439	1951	3609	3726	-	-
15. Family living from farm	315	373	267	384	219	90
16. Total farm receipts	\$14302	\$26978	\$21351	\$19687	\$14607	\$14341
<u>Farm Expenses</u>						
17. Dairy cattle bought	\$ 30	\$ -	\$ -	\$ -	\$ -	\$ 65
18. Beef cattle bought	211	-	-	-	-	-
19. Hogs bought	71	-	113	62	60	-
20. Sheep bought	4	-	-	-	-	-
21. Horses bought	139	-	-	2225	-	-
22. Poultry bought	4	-	-	-	-	-
23. Misc. livestock expense	389	742	273	516	534	467
24. Feed	2124	3485	865	1918	1740	4060
25. Fertilizers	400	522	671	681	534	432
26. Other crop expenses	446	1165	818	387	636	346
27. Custom work hired	582	1041	552	556	357	513
28. Gas, oil, grease (farm share)	674	256	1040	957	619	422
29. Rep. tract., trucks, autos (farm share)	448	839	395	512	537	460
30. Repair farm real estate	161	223	-	28	146	158
31. Rep. crop & general machinery	289	807	387	311	111	145
32. Rep. livestock equipment	120	122	124	141	167	86
33. Wages of hired labor	204	168	547	150	136	51
34. Electricity expense (farm share)	289	554	196	292	267	331
35. Real estate & pers. prop. taxes	604	796	713	608	412	508
36. Tel. & gen. farm expense	216	271	140	162	387	249
37. Total cash oper. expense	\$ 7405	\$10991	\$ 6834	\$ 9506	\$ 6643	\$ 8293
38. Mech. power bot. (farm share)	458	937	2643	-	-	-
39. Crop & gen. mach. bought	426	811	1488	372	739	16
40. Livestock equip. bought	137	-	638	-	-	12
41. New real estate improvement	189	334	198	75	-	405
42. Total farm purchases	\$ 8615	\$13073	\$11802	\$ 9953	\$ 7382	\$ 8726
43. Decrease in farm capital	-	-	-	-	1542	160
44. Interest on farm capital	1765	3759	2606	2054	1792	1366
45. Unpaid family labor	714	900	-	900	300	600
46. Board furnished hired labor	60	80	-	360	-	25
47. Total farm expenses	\$11154	\$17812	\$14408	\$13267	\$11016	\$10877
48. Labor earnings	\$ 3148	\$ 9166	\$ 6943	\$ 6420	\$ 3591	\$ 3464

(1) Arranged in descending order by labor earnings.

Table 2. Summary of Farm Earnings (Cash Statement) 1963 (Continued)

Items	Farm Number					
	2	27	20	4	7	24
<u>Farm Receipts</u>						
1. Dairy cattle	\$ 679	\$4865	\$2983	\$1406	\$1784	\$2399
2. Dairy products	6651	6784	11962	8484	8589	8450
3. Beef cattle	-	-	-	-	-	-
4. Hogs	2582	2850	-	344	-	-
5. Sheep	-	-	-	-	-	-
6. Horses	-	-	-	-	-	-
7. Poultry	-	-	-	-	-	-
8. Eggs	-	-	-	-	-	-
9. Crops	776	-	600	409	489	71
10. Mach. & equip. sold	119	90	136	140	129	183
11. Income from work off farm	368	-	103	112	147	530
12. Miscellaneous	76	76	47	48	288	634
13. Total farm sales	\$11251	\$14665	\$15831	\$10943	\$11426	\$12267
14. Increase in farm capital	819	-	-	-	-	5
15. Family living from farm	229	494	558	392	414	167
16. Total farm receipts	\$12299	\$15159	\$16389	\$11335	\$11840	\$12439
<u>Farm Expenses</u>						
17. Dairy cattle bought	\$ -	\$ -	\$ 40	\$ -	\$ -	\$ -
18. Beef cattle bought	-	-	-	-	-	-
19. Hogs bought	-	523	-	60	-	-
20. Sheep bought	-	-	-	-	-	-
21. Horses bought	-	-	-	-	-	-
22. Poultry bought	-	-	-	-	-	-
23. Misc. livestock expense	272	419	649	518	68	614
24. Feed	1267	3423	4284	456	34	922
25. Fertilizers	257	452	360	384	267	263
26. Other crop expenses	425	159	244	502	258	549
27. Custom work hired	842	-	1060	666	439	32
28. Gas, oil, grease (farm share)	539	737	837	681	498	669
29. Rep. tract., trucks, autos (farm share)	298	445	698	482	100	746
30. Repair farm real estate	157	795	2	62	-	48
31. Rep. crop & gen. machinery	139	299	282	60	287	392
32. Rep. livestock equipment	50	196	29	38	370	147
33. Wages of hired labor	-	50	238	219	-	178
34. Electricity expense (farm share)	201	413	335	282	235	225
35. Real estate & pers. prop. taxes	759	491	516	742	404	567
36. Tel. & gen. farm expense	148	228	225	151	307	177
37. Total cash oper. expense	\$5354	\$8630	\$9799	\$5303	\$3267	\$5529
38. Mech. power bot. (farm share)	-	-	-	-	-	1162
39. Crop & gen. mach. bought	406	-	236	-	-	-
40. Livestock equip. bought	1537	-	-	-	-	-
41. New real estate improvement	-	-	-	-	-	-
42. Total farm purchases	\$ 7297	\$ 8630	\$10035	\$ 5303	\$ 3267	\$ 6691
43. Decrease in farm capital	-	905	638	1079	2212	-
44. Interest on farm capital	1204	1619	1671	1480	1160	1380
45. Unpaid family labor	375	600	600	450	2400	2200
46. Board furnished hired labor	-	-	65	7	-	120
47. Total farm expenses	\$8876	\$11754	\$13009	\$8319	\$9039	\$10391
48. Labor earnings	\$3423	\$3405	\$3380	\$3016	\$2801	\$2048

Table 2. Summary of Farm Earnings (Cash Statement) 1963 (continued)

Items	Farm Number				
	26	23	16	12	8
<u>Farm Receipts</u>					
1. Dairy cattle	\$2794	\$1574	\$1693	\$1765	\$1063
2. Dairy products	10683	4751	5710	3785	1207
3. Beef cattle	-	-	-	3918	-
4. Hogs	-	380	-	2298	-
5. Sheep	-	-	1199	-	3086
6. Horses	-	-	-	-	-
7. Poultry	-	-	-	-	-
8. Eggs	-	-	185	-	38
9. Crops	645	1435	492	845	365
10. Mach. & equip. sold	310	142	120	-	93
11. Income from work off farm	47	741	-	-	250
12. Miscellaneous	680	969	32	505	224
13. Total farm sales	\$15159	\$ 9992	\$ 9431	\$13116	\$ 6326
14. Increase in farm capital	3883	1132	-	1829	-
15. Family living from farm	359	297	174	374	256
16. Total farm receipts	\$19401	\$11421	\$ 9605	\$15319	\$ 6582
<u>Farm Expenses</u>					
17. Dairy cattle bought	\$ 70	\$300	\$ -	\$ -	\$ -
18. Beef cattle bought	-	-	-	3380	-
19. Hogs bought	-	230	-	85	-
20. Sheep bought	-	-	20	-	50
21. Horses bought	-	-	-	-	-
22. Poultry bought	-	-	52	11	-
23. Misc. livestock expense	363	238	144	154	250
24. Feed	3590	682	3004	1507	2764
25. Fertilizers	565	462	192	188	164
26. Other crop expenses	359	521	246	299	218
27. Custom work hired	1256	367	616	518	504
28. Gas, oil, grease(farm share)	828	1274	460	554	412
29. Rep. tract., trucks, autos (farm share)	509	235	237	387	280
30. Repair farm real estate	741	108	1	46	59
31. Rep. crop and general machinery	268	533	43	427	131
32. Rep. livestock equipment	184	185	1	43	33
33. Wages of hired labor	396	17	20	1055	32
34. Electricity expense (farm share)	336	219	275	248	220
35. Real estate & personal property taxes	746	698	341	995	379
36. Tel. & gen. farm expense	342	169	108	244	144
37. Total cash oper. expense	\$10553	\$ 6238	\$ 5760	\$10141	\$ 5640
38. Mech. power bot. (farm share)	700	77	-	1804	-
39. Crop & gen. mach. bought	1325	1117	-	-	310
40. Livestock equip. bought	-	-	-	-	-
41. New real estate improvement	1961	47	-	-	-
42. Total farm purchases	\$14539	\$ 7479	\$ 5760	\$11945	\$ 5950
43. Decrease in farm capital	-	-	1985	-	1404
44. Interest on farm capital	2082	1842	984	2424	826
45. Unpaid family labor	750	900	-	-	450
46. Board furnished hired labor	40	-	60	200	-
47. Total farm expenses	\$17412	\$10221	\$ 8789	\$14569	\$ 8630
48. Labor earnings	\$ 1989	\$ 1200	\$ 816	\$ 750	\$-2048

Table 3. Summary of Farm Earnings (Enterprise Statement) 1963 (1)

Items	Ave. of 16 farms	Farm Number						
		25	19	1	3	18	2	27
RETURNS AND NET INCREASES								
Dairy cows	\$8336	\$17376	\$8048	\$10105	\$6929	\$10544	\$6535	\$7183
Other dairy cattle	2790	3544	2437	4778	2016	3199	1521	5121
Beef cattle	55	-	-	-	-	-	-	-
Hogs	1227	787	5001	360	3732	-	1967	2920
Sheep	219	-	-	67	-	-	-	-
Chickens	24	-	-	-	-	-	-	-
Total livestock	\$12651	\$21707	\$15486	\$15310	\$12677	\$13743	\$10023	\$15224
Value of feed fed	7907	15281	6823	9698	8201	8420	6565	8491
Livestock return over feed	\$4744	\$6426	\$8663	\$5612	\$4476	\$5323	\$3458	\$6733
Crops, seed and feed	5729	14485	6684	8458	5116	3364	5867	3711
Income from labor off farm	124	34	-	337	-	284	348	-
Miscellaneous	517	983	507	1612	688	895	76	76
Total returns & net increases	\$11114	\$21928	\$15854	\$16019	\$10280	\$9866	\$9749	\$10520
EXPENSES AND NET DECREASES								
Truck (farm share)	\$242	\$187	\$363	\$227	\$346	\$576	\$ -	\$208
Auto (farm share)	398	274	385	668	593	4	699	48
Tractors and horses	786	925	1105	1023	596	422	664	843
Elec. motors exp. (farm share)	283	554	196	292	268	331	82	413
Hired power	323	555	331	322	195	307	343	-
Total power	\$2032	\$2495	\$2380	\$2532	\$1998	\$1640	\$1788	\$1512
Crop and general machinery	885	1789	927	909	422	349	951	812
Livestock equipment	353	548	427	390	497	603	117	266
Buildings, fences, etc.	524	817	676	801	78	337	443	1118
Misc. livestock expense	389	742	273	516	534	467	271	419
Labor	1198	1545	768	1627	571	882	644	650
Real estate taxes	414	550	493	444	300	289	576	265
Personal property tax	190	246	220	163	112	219	184	226
Insurance	101	107	35	79	190	85	78	164
General farm expense	115	164	105	84	197	164	70	64
Interest on farm capital	1765	3759	2607	2054	1791	1366	1204	1619
Total expenses and net decreases	\$7966	\$12762	\$8911	\$9599	\$6690	\$6401	\$6326	\$7115
Labor earnings	\$3148	\$9166	\$6943	\$6420	\$3590	\$3465	\$3423	\$3405

(1) Arranged in descending order by labor earnings.

Table 3. Summary of Farm Earnings (Enterprise Statement) 1963 (continued)*

Item	Farm Number								
	20	4	7	24	26	23	16	12	8
RETURNS AND NET INCREASES									
Dairy cows	\$12029	\$9020	\$9153	\$8452	\$11087	\$5129	\$6679	\$3784	\$1318
Other dairy cattle	4035	2315	2039	3817	4823	2181	1179	1707	432
Beef cattle	-	-	-	-	-	-	-	878	-
Hogs	-	142	-	-	-	1335	-	3386	-
Sheep	-	-	-	-	-	-	1084	-	2348
Chickens	-	-	-	-	-	-	338	14	38
All productive livestock	\$16064	\$11477	\$11192	\$12269	\$15410	\$8645	\$9280	\$9769	\$4136
Value of feed fed	10761	6661	4596	5764	10297	5240	7931	7474	4298
Livestock return over feed	\$5303	\$4816	\$6596	\$6505	\$5113	\$3405	\$1349	\$2295	-\$162
Crops, seed and feed	7338	5263	3379	3833	7184	4921	3087	7045	1932
Income from labor off farm	41	28	91	386	36	214	-	-	183
Miscellaneous	47	48	288	634	679	969	32	505	224
Total returns & net increases	\$12729	\$10155	\$10354	\$11358	\$13012	\$9509	\$4468	\$9845	\$2177
EXPENSES AND NET DECREASES									
Truck (share)	\$164	\$ -	\$ -	\$680	\$365	\$222	\$250	\$288	\$ -
Auto (share)	273	1213	220	10	698	258	60	609	354
Tractor and horses	1536	535	890	909	704	1087	310	615	408
Elec. exp. (share)	334	282	235	225	336	219	275	248	237
Hired power	672	286	263	19	693	220	343	311	302
Total power	\$2979	\$2316	\$1608	\$1843	\$2796	\$2006	\$1238	\$2071	\$1301
Crop and general machinery	1443	526	316	1727	1009	1241	186	1235	313
Livestock equipment	407	206	806	228	611	268	130	95	53
Buildings, fences, etc.	167	307	308	264	1408	783	181	416	276
Misc. livestock expense	649	518	68	614	364	238	144	154	250
Labor	1292	894	2575	2510	1665	1064	340	1462	684
Real estate taxes	332	493	283	325	485	504	235	796	261
Personal property taxes	183	249	121	242	261	193	106	199	117
Insurance	154	77	147	71	54	114	33	139	86
General farm expenses	71	73	161	106	288	55	75	105	58
Interest on farm capital	1671	1480	1160	1380	2082	1842	984	2423	826
Total expenses & net decreases	\$9348	\$7139	\$7553	\$9310	\$11023	\$8308	\$3652	\$9095	\$4225
Labor earnings	\$3381	\$3016	\$2801	\$2048	\$1989	\$1201	\$816	\$750	-\$2048

* Cash receipts and expenses are adjusted for changes in inventory for each enterprise and for each item of expense.

Return to Capital and Family Labor

Return to capital and family labor, as shown in Table 4, represents the income 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 statements 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 nonfarm 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 year. 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 14 farmers who kept complete records of assets and liabilities in 1963 was \$34,078. These farmers realized an average increase of \$1,308 in net worth during 1963.

Family Income and Expenses

Total cash family living expenses for 9 farm families that kept records of these expenditures amounted to an average of \$3,137 per family (Table 6). In addition, these families used farm produce valued at \$285, or a total of \$3,422 for cash family expenses plus perquisites. Their average total income available for payment of family living amounted to \$4,155. Thus, the farmers who kept records of family living expenses had an average of about \$733 to use for debt retirement or business expansion after all living expenses were met.

Table 4. Returns to Capital and Family Labor (Operator's Share) 1963 (1)

Items	Ave. of 15 farms	Farm Number						
		25	19	1	1	18	2	27
Farm Income								
1. Total farm sales	\$13734	\$24054	\$17475	\$15577	\$14388	\$14251	\$11251	\$14665
2. Increase in capital	1501	14951	3609	3726	-	-	818	-
3. Family living from farm	<u>324</u>	<u>373</u>	<u>267</u>	<u>334</u>	<u>218</u>	<u>90</u>	<u>229</u>	<u>494</u>
4. Total farm receipts	\$15559	\$39378	\$21351	\$19687	\$14606	\$14341	\$12298	\$15159
Farm Expenses								
5. Total farm purchases	\$10255	\$27783	\$11802	\$11215	\$7515	\$9065	\$7860	\$8909
6. Decrease in capital	-	-	-	-	1542	160	-	905
7. Board furnished hired labor	<u>59</u>	<u>80</u>	<u>-</u>	<u>360</u>	<u>-</u>	<u>25</u>	<u>-</u>	<u>-</u>
8. Total farm expenses	\$10314	\$27863	\$11802	\$11575	\$9057	\$9250	\$7860	\$9814
9. Return to capital and family labor	\$5245	\$11515	\$9549	\$8112	\$5549	\$5091	\$4438	\$5345

Items	Farm Number							
	20	4	7	24	26	23	12	8
Farm Income								
1. Total farm sales	\$15231	\$10824	\$11426	\$12267	\$15159	\$9992	\$13116	\$6326
2. Increase in capital	-	-	-	5	3883	1132	1829	-
3. Family living from farm	<u>558</u>	<u>392</u>	<u>414</u>	<u>166</u>	<u>359</u>	<u>297</u>	<u>374</u>	<u>256</u>
4. Total farm receipts	\$15789	\$11216	\$11840	\$12438	\$19401	\$11421	\$15319	\$6582
Farm Expenses								
5. Total farm purchases	\$11318	\$6296	\$3267	\$6691	\$15208	\$8171	\$12624	\$6095
6. Decrease in capital	138	1079	2212	-	-	-	-	1405
7. Board furnished hired labor	<u>65</u>	<u>7</u>	<u>-</u>	<u>120</u>	<u>40</u>	<u>-</u>	<u>200</u>	<u>-</u>
8. Total farm expenses	\$11521	\$7382	\$5479	\$6811	\$15248	\$8171	\$12824	\$7500
9. Return to capital and family labor	\$4268	\$3834	\$6361	\$5627	\$4153	\$3250	\$2495	-\$918

(1) Arranged in descending order of return to labor earnings.

Table 5. Net Worth Statement for Those Farmers Who Kept a Record of All Assets and Liabilities (Operator's Share) 1963 (1)

Items	Ave. of 14 farms	Farm Number					
		25	19	1	3	18	2
Total acres - owned	300	160	282	445	266	547	120
rented	50	378	-	20	-	-	120
					<u>January 1</u>		
Farm Capital	\$34182	\$48206	\$50326	\$39220	\$36603	\$27399	\$17667
Cash on hand	1953	450	10867	100	600	100	-
Stocks, bonds and life insurance	1758	1100	12333	2200	1651	400	-
Household goods and clothing	1835	2400	1960	1250	775	2100	1100
Personal share of auto and truck	247	189	521	453	520	160	51
Farm dwelling	3360	2100	5000	4432	2200	2000	4275
Other non-farm assets	882	1370	6700	320	130	-	80
Total non-farm assets	\$10035	\$ 7609	\$37381	\$ 8755	\$ 5876	\$ 4760	\$ 5506
Total assets	44217	55815	87707	47975	42479	32159	23173
Real estate mortgages	5016	1500	-	16431	10000	8000	5000
Chattel mortgages	4099	14137	-	3200	-	7445	3350
Notes payable	1669	-	-	2000	2200	-	-
Accounts payable	663	720	-	504	-	300	-
Total liabilities	\$11447	\$16357	\$ -	\$22135	\$12200	\$15745	\$ 8350
Net worth	\$32770	\$39458	\$87707	\$25840	\$30279	\$16414	\$14823
					<u>December 31</u>		
Farm Capital	\$35948	\$63157	\$53935	\$42946	\$35060	\$27239	\$18485
Cash on hand	2127	790	12560	200	950	100	-
Stocks, bonds and life insurance	1800	1200	12250	2500	1716	400	-
Household goods and clothing	1829	2400	1960	1250	800	2100	1100
Personal share of auto	244	402	455	306	434	120	-
Farm dwelling	3313	2100	5000	4262	2200	2000	4060
Other non-farm assets	908	1466	7044	548	186	12	227
Total non-farm assets	\$10221	\$ 8358	\$39269	\$ 9066	\$ 6286	\$ 4732	\$ 5387
Total assets	46169	71515	93204	52012	41346	31971	23872
Real estate mortgages	5614	12384	-	15889	9700	8000	4500
Chattel mortgages	4116	13750	-	3601	-	5825	2390
Notes payable	1827	-	-	2000	1100	-	-
Accounts payable	534	920	-	280	-	-	-
Total liabilities	\$12091	\$27054	\$ -	\$21770	\$10800	\$13825	\$ 6890
Net worth	\$34078	\$44461	\$93204	\$30242	\$30546	\$18146	\$16982
Change in net worth	\$ 1308	\$ 5003	\$ 5497	\$ 4402	\$ 267	\$ 1732	\$ 2159

(1) Arranged in descending order of labor earnings.

Table 5. Net Worth Statement for Those Farmers Who Kept a Record of All Assets and Liabilities (Operator's Share) 1963 (Continued)

Items	Farm Number								
	27	20	4	24	26	23	12	8	
Total acres - owned	100	320	240	360	400	394	320	240	
rented	-	100	28	-	-	58	-	-	
				January 1					
Farm Capital	\$32823	\$32341	\$29639	\$27589	\$39702	\$32265	\$47554	\$17219	
Cash on hand	300	200	992	12911	-	100	-	720	
Stocks, bonds and life insurance	360	-	1661	-	1060	-	975	2874	
Household goods and clothing	2800	2500	1200	1000	3200	1800	2000	1600	
Personal share of auto and truck	-	80	659	-	660	100	-	69	
Farm dwelling	6000	3000	3578	2000	3000	3500	5600	360	
Other non-farm assets	-	1466	-	-	2250	-	25	-	
Total non-farm assets	\$ 9460	\$ 7246	\$ 8090	\$15911	\$10170	\$ 5500	\$ 8600	\$ 5623	
Total assets	42283	39587	37729	43500	49872	37766	56154	22842	
Real estate mortgages	-	4171	7201	-	4500	6913	6500	-	
Chattel mortgages	4650	7800	8722	-	3650	2755	-	1672	
Notes payable	-	320	4621	-	2229	1050	10950	-	
Accounts payable	-	2050	3284	-	1269	562	-	600	
Total liabilities	\$ 4650	\$14341	\$23828	\$ -	\$11648	\$11280	\$17450	\$ 2272	
Net worth	\$37633	\$25246	\$13901	\$43500	\$38224	\$26486	\$38704	\$20570	
				December 31					
Farm Capital	\$31918	\$32203	\$28559	\$27594	\$43586	\$33398	\$49383	\$15814	
Cash on hand	350	50	103	13496	300	90	400	384	
Stocks, bonds, and life insurance	500	-	1397	-	1080	-	1100	3056	
Household goods and clothing	2700	2500	1200	1000	3200	1800	2000	1600	
Personal share of auto and truck	-	-	732	-	510	-	412	52	
Farm dwelling	6000	3000	3495	2000	3000	3500	5400	360	
Other non-farm assets	-	1870	-	87	980	128	161	-	
Total non-farm assets	\$ 9550	\$ 7420	\$ 6927	\$16583	\$ 9070	\$ 5518	\$ 9473	\$ 5452	
Total assets	41468	39623	35486	44177	52656	38916	58856	21266	
Real estate mortgages	-	3920	6917	-	4500	6790	6000	-	
Chattel mortgages	4050	11840	7843	-	3850	2800	-	1672	
Notes payable	-	500	3262	-	2373	1215	15125	-	
Accounts payable	-	734	3003	-	1831	130	-	578	
Total liabilities	\$ 4050	\$16994	\$21025	\$ -	\$12554	\$10935	\$21125	\$ 2250	
Net worth	\$37418	\$22629	\$14461	\$44177	\$40102	\$27981	\$37731	\$19016	
Change in net worth	\$ -215	\$-2617	\$ 560	\$ 677	\$ 1878	\$ 1495	\$ -973	\$-1554	

Table 6. Household and Personal Expenses for Those Farmers Who Kept Accounts of These Expenses, 1963 (1)

Items	Ave. of 9 farms	Farm Number								
		24	3	18	4	2	20	26	23	8
Number of persons--family	5.2	2.2	9.0	3.0	6.0	6.0	7.0	7.0	5.0	2.0
Adult equivalents--family	4.3	2.2	6.2	2.3	5.5	4.6	5.7	6.2	5.0	1.8
other*	.1	.2	-	.1	-	-	.1	.1	-	-
Expenses										
Food and meals bought	\$ 966	\$1274	\$1246	\$ 888	\$ 898	\$ 880	\$1397	\$ 723	\$ 937	\$ 449
Operating & supplies	195	113	440	43	345	-	402	127	26	263
Furnishings & equipment	183	73	498	142	155	211	23	428	97	20
Clothing & cloth. materials	349	284	731	214	435	222	574	339	218	123
Personal care & spending	110	251	63	201	93	-	187	40	42	114
Education & recreation	262	77	519	11	282	523	669	147	73	60
Gifts & special events	101	40	42	69	67	148	305	60	55	120
Medical & hosp. insurance	272	15	542	244	185	361	146	413	388	155
Church & welfare	111	37	204	4	306	288	88	36	5	28
Pers. share of auto exp.	126	137	62	104	174	124	193	154	158	26
Upkeep on dwelling	120	451	57	-	-	-	235	340	-	-
Personal share of telephone & elec. expenses	111	144	76	92	118	139	92	153	86	99
Total cash living expense	\$2906	\$2896	\$4480	\$2012	\$3058	\$2896	\$4311	\$2960	\$2085	\$1457
Pers. share of new autos	-	-	-	-	-	-	-	-	-	-
New dwelling	-	-	-	-	-	-	-	-	-	-
Taxes	38	99	20	98	10	10	21	39	-	47
Life insurance	182	-	562	119	164	126	138	280	166	86
Other savings & investments	11	-	-	-	100	-	-	-	-	-
Total household & personal cash expenses	\$3137	\$2995	\$5062	\$2229	\$3332	\$3032	\$4470	\$3279	\$2251	\$1590
Family living from farm	285	166	219	89	392	229	558	359	297	256
Total cash expense & perquisites	\$3422	\$3161	\$5281	\$2318	\$3724	\$3261	\$5028	\$3638	\$2548	\$1846
Receipts										
Return to capital & family labor	\$3921	\$5628	\$5549	\$5091	\$3835	\$4438	\$4269	\$4154	\$3251	\$-918
Other personal income	234	580	350	-	780	11	15	-	-	367
Total income	\$4155	\$6208	\$5899	\$5091	\$4615	\$4449	\$4284	\$4154	\$3251	\$-551

(1) Arranged by descending order of return to capital and family labor plus personal income.

* Hired help or others boarded.

Table 7. Family Living From the Farm, 1963 (1)

Item	Ave. of 16 farms	Farm Number							
		25	19	1	3	18	2	27	20
No. of adult equivalents:									
Family	5.1	7.3	6.7	4.7	6.2	2.3	4.6	5.1	5.7
Other*	.1	.2	-	.7	-	.1	-	-	.1
Whole milk qts.	1699	2400	2170	2160	1733	1300	1040	2778	2200
Cream pts.	18	70	20	-	-	-	33	61	-
Cattle lbs.	821	900	-	750	-	-	600	1100	-
Hogs lbs.	334	570	750	600	535	-	400	1190	2000
Poultry lbs.	26	-	-	-	-	-	-	-	-
Eggs doz.	2	-	-	-	-	-	-	-	-
Total value	\$315	\$373	\$267	\$384	\$219	\$ 90	\$229	\$494	\$558

Item	Farm Number								
	4	7	24	26	23	16	12	8	
No. of adult equivalents:									
Family	5.5	12.4	2.2	6.2	5.0	2.8	3.5	1.8	
Other*	-	-	.2	.1	-	.1	.4	-	
Whole milk qts.	1421	2359	-	2800	1500	1440	1130	745	
Cream pts.	-	-	-	-	100	-	-	-	
Cattle lbs.	2000	1650	1040	1000	350	-	800	950	
Hogs lbs.	-	-	-	-	600	-	700	-	
Poultry lbs.	-	-	-	-	-	195	225	-	
Eggs doz.	-	-	-	-	-	28	-	-	
Total value	\$392	\$414	\$166	\$359	\$297	\$174	\$374	\$256	

(1) 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 of business in terms of work units is probably the most important of these factors. Size of business varied from 876 work units to 194 per farm. These same two farms had a difference of over \$12,000 in return to capital and family labor. 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, machinery, equipment, and building expense per work unit shown in Table 11. A second measure is that of power and machinery expenses per crop acre as shown in Table 9. Another measure can be determined by calculating the proportion of farm sales needed to cover farm expenses. (Table 2: item 42 ÷ item 13). 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, 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	1.2 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, 1-1/4 beef cows or bull, 1 feeder steer or heifer, 3-1/3 other beef cattle, 7 sheep, 14 lambs, 2-1/2 hogs, 5 pigs, 50 hens, or 1,100 pounds of turkeys produced.

Table 9. Power and Machinery Expenses per Crop Acre, 1963

Items	Ave. of 16 farms	Farm Number								
		25	19	1	2	18	2	27	20	4
Crop acres per farm	157.8	370	152	175	144	142	120	42	199	120
Tractor expense per crop acre	\$5.80	\$2.50	\$7.27	\$5.84	\$4.16	\$2.97	\$5.53	\$20.08	\$7.72	\$4.46
Crop & gen. mach. exp. per crop acre	\$6.13	\$4.84	\$6.10	\$5.19	\$2.94	\$2.46	\$7.92	\$19.34	\$7.25	\$4.39

Items	Farm Number							
	7	24	26	23	16	12	8	
Crop acres per farm	172	146	136	208	127	187	87	
Tractor expense per crop acre	\$5.17	\$6.22	\$5.18	\$5.22	\$2.44	\$3.29	\$4.69	
Crop & general mach. exp. per crop acre	\$.76	\$11.83	\$7.42	\$5.97	\$1.47	\$6.60	\$3.60	

Table 10. Average Price of Feeds, 1963

Items	Value	Items	Value
Ear corn, per bu.	\$1.05	Alfalfa hay, per ton	\$18.50
Oats, per bu.	.62	Timothy, per ton	10.70
Wheat, per bu.	2.05	Corn silage, per ton	6.25
Soybean meal, per cwt.	4.60	Pasture per mo. per cow	2.50

Table 11. Measures of Farm Organization and Management Efficiency, 1963

Items	Ave. of 16 farms	Farm Number							
		25	19	1	3	18	2	27	20
Labor earnings	\$3148	\$9167	\$6943	\$6420	\$3590	\$3465	\$3423	\$3405	\$3381
Index of crop yields	100	86	127	94	89	78	124	227	85
Index of return for \$100 feed to produce livestock	100	58	142	84	88	85	92	97	77
Livestock units per 100 acres	25.1	18.9	20.0	13.4	21.6	17.5	23.2	105.8	17.8
Size of business -- work units	491	876	414	644	405	540	377	459	560
Work units per worker	327	548	244	379	338	415	314	353	373
Power, machinery, equipment, bldg. expense per work unit	\$7.97	\$6.45	\$10.65	\$7.19	\$7.39	\$5.43	\$8.75	\$8.08	\$8.92
Items related to above measure:									
Index of return for \$100 feed from:									
Dairy cattle	100	57	176	84	88	85	73	102	77
Feeder cattle	100	-	-	-	-	-	-	-	-
Hogs	100	64	90	-	87	-	159	87	-
Sheep	100	-	-	-	-	-	-	-	-
Number of animal units	57.5	91.2	47.9	51.5	49.0	55.6	45.4	81.5	58.7
Work units on:									
Crops	99	233	88	108	94	81	72	25	122
Productive livestock	360	632	319	348	311	383	268	434	428
Other	32	11	7	188	-	76	37	-	10
Number of workers:									
Family	1.3	1.5	1.0	1.5	1.2	1.2	1.2	1.3	1.3
Hired	.2	.1	.7	.2	-	.1	-	-	.2
Total	1.5	1.6	1.7	1.7	1.2	1.3	1.2	1.3	1.5
Expense per work unit:									
Power	\$4.39	\$2.85	\$5.75	\$3.93	\$4.93	\$3.04	\$4.74	\$3.29	\$5.32
Crop machinery	1.82	2.04	2.24	1.41	1.04	.65	2.52	1.77	2.57
Livestock equipment	.68	.63	1.03	.61	1.23	1.12	.31	.58	.73
Buildings and fencing	1.08	.93	1.63	1.24	.19	.62	1.18	2.44	.30

Table 11. Measures of Farm Organization and Management Efficiency, 1963 (continued)

Items	Farm Number							
	4	7	24	26	23	16	12	8
Labor earnings	\$3016	\$2801	\$2048	\$1989	\$1201	\$ 816	\$ 750	\$-2048
Crop yields	109	46	78	116	52	62	126	109
Index of return for \$100 feed to prod. lvstk.	92	129	111	78	92	85	90	103
Livestock units per 100 acres	20.6	31.8	21.4	16.8	12.2	17.7	20.8	22.6
Size of business -- work units	447	648	501	601	525	310	350	194
Work units per worker	344	324	228	462	350	282	292	149
Power, machinery, equipment, building expense per work unit	\$ 7.50	\$ 4.69	\$ 8.11	\$ 9.69	\$ 8.18	\$ 5.60	\$10.90	\$10.01
Items related to above measures:								
Index of return for \$100 feed from:								
Dairy cattle	92	129	111	78	87	65	77	215
Feeder cattle	-	-	-	-	-	-	100	-
Hogs	-	-	-	-	116	-	98	-
Sheep	-	-	-	-	-	121	-	78
Number of animal units	47.6	66.8	50.9	78.0	52.7	45.4	56.1	42.2
Work units on:								
Crops	83	112	98	96	134	70	114	52
Productive livestock	353	521	350	500	317	240	236	117
Other	11	15	53	5	74	-	-	25
Number of workers:								
Family	1.3	2.0	1.9	1.2	1.5	1.0	.8	1.3
Hired	.0	-	.3	.1	-	.1	.4	.0
Total	1.3	2.0	2.2	1.3	1.5	1.1	1.2	1.3
Expense per work unit:								
Power	\$5.18	\$2.48	\$3.68	\$4.65	\$3.82	\$3.99	\$5.91	\$6.71
Crop machinery	1.18	.49	3.45	1.68	2.36	.60	3.53	1.61
Livestock equipment	.46	1.24	.45	1.02	.51	.42	.27	.27
Buildings and fencing	.68	.48	.53	2.34	1.49	.59	1.19	1.42

Table 12. Distribution of Acres in Farm, 1963 (1)

Crop	Ave. of	Farm Number							
	16 farms	25	19	1	3	18	2	27	20
Oats for grain and silage	25.1	44	42	41	27	6	28	-	73
Other small grains	3.2	14	-	-	-	-	-	-	-
Total small grains	28.3	58	42	41	27	6	28	-	73
Corn grain	24.8	58	48	55	40.5	-	20	-	8
Corn silage	24.1	36	5	20	17.5	20	12	-	27
Total cultivated crops	48.9	94	53	75	58	20	32	-	35
Alfalfa and alfalfa mix hay	55.3	200	30	29	58.5	56	39	42	81
Red clover hay	10.5	-	-	-	-	-	-	-	-
Other hay and seed crops	7.3	18	27	30	-	-	7	-	-
Total tillable land in hay	73.1	218	57	59	58.5	56	46	42	81
Alfalfa and alfalfa mix pasture	29.6	-	-	-	-	69	-	-	35
Other tillable pasture	21.6	55	49	50	-	-	5	18	-
Total tillable land in pasture	51.2	55	49	50	-	69	5	18	35
Soil bank and feed-grain acres	13.8	58	19	32	-	7	5	-	-
Tillable land not cropped	5.5	-	-	3	58.5	-	-	-	26
Total tillable land	220.8	483	220	260	202	158	116	60	250
Wild hay	7.5	-	-	-	-	60	14	-	10
Non-tillable pasture	55.7	-	20	125	25	100	66	17	70
Timber not pastured, roads, waste, and farmstead	84.3	55	42	60	39	229	44	23	90
Total acres in farm	368.3	538	282	445	266	547	240	100	420
Percent land tillable	60	90	78	58	76	29	48	60	60

(1) Arranged in descending order of labor earnings.

Table 12. Distribution of Acres in Farm, 1963 (continued)

Crop	Farm Number							
	4	7	24	26	23	16	12	8
Oats for grain and silage	10	-	41	-	46	-	42	10
Other small grains	-	10	-	-	18	-	-	-
Total small grains	10	10	41	-	64	-	42	10
Corn grain	27	-	12	-	65	-	50	13
Corn silage	27	70	34	36	24	32	18	8
Total cultivated crops	54	70	46	36	89	32	68	21
Alfalfa and alfalfa mix hay	48	-	59	100	55	-	48	40
Red clover hay	-	-	-	-	-	-	-	-
Other hay and seed crops	-	92	-	-	-	95	-	16
Total tillable land in hay	48	92	59	100	55	95	48	56
Alfalfa and alfalfa mix pasture	-	-	42	236	13	-	-	78
Other tillable pasture	45	20	-	-	-	104	-	-
Total tillable land in pasture	45	20	42	236	13	104	-	78
Soil bank and feed-grain acres	-	-	-	33	22	23	-	22
Tillable land not cropped	-	-	-	-	-	-	-	-
Total tillable land	157	192	188	405	243	254	158	187
Wild hay	8	-	-	-	-	-	29	-
Non-tillable pasture	66	18	50	60	189	2	83	-
Timber not pastured, roads, waste and farmstead	37	410	122	15	20	59	50	53
Total acres in farm	268	620	360	480	452	315	320	240
Percent land tillable	48	31	52	84	54	81	49	78

Table 13. Crop Yields per Acre, 1963 (1)

Crop	Ave. of farms raising each crop	Farm Number								
		25	19	1	3	18	2	27	20	4
Oats, grain, bu.	38.5	50.8	52.4	39.0	35.6	30.0	47.8	-	7.5	65.0
Corn grain, bu.	57.1	44.8	75.0	54.5	56.2	-	80.0	-	50.0	66.7
Corn silage, tons	7.6	6.4	10.0	10.0	9.0	10.2	9.0	-	9.6	10.7
Alfalfa and alfalfa mix.										
hay, tons	2.2	1.8	1.5	1.1	1.7	1.4	2.6	5.0	1.8	1.8
Other legume hay, tons	1.8	1.4	-	2.1	-	-	4.0	-	-	-
Annual hay, tons	.9	-	1.6	-	-	-	-	-	-	-
Feed-grain payment, dollars	\$31.32	\$26.81	\$36.18	\$32.21	-	\$29.55	\$67.01	-	-	-
Wild hay, tons	1.0	-	-	-	-	1.1	2.0	-	1.5	-

Crop	Farm Number						
	7	24	26	23	16	12	8
Oats grain, bu.	-	40.2	-	12.5	-	50.0	10.0
Corn grain, bu.	-	50.0	-	36.9	-	60.0	53.8
Corn silage, tons	3.6	5.9	9.4	5.0	5.0	9.2	1.5
Alfalfa and alfalfa mix hay, tons	-	1.4	2.5	.8	-	3.5	3.8
Other legume hay, tons	.5	-	-	-	1.1	-	-
Annual hay, tons	.7	-	-	-	.5	-	.6
Feed-grain payment, dollars	-	-	\$14.62	\$37.48	\$21.39	-	\$16.59
Wild hay, tons	-	-	-	-	-	.3	-

(1) Arranged by descending order of labor earnings.

Table 14. Feed Costs and Returns from Hogs, 1963 (1)

Items	Ave. of 7 farms	Farm Number						
		2	23	12	27	19	3	25
Feed per cwt. hogs produced. lbs.:								
Corn	193	255	235	224	-	372	268	-
Small grain	84	123	145	172	-	54	95	-
Commercial feeds	178	141	38	50	533	39	55	387
Total concentrates	455	519	418	446	533	465	418	387
Feed cost per cwt. hogs produced	\$12.28	\$13.23	\$ 9.52	\$11.30	\$14.71	\$ 9.92	\$10.58	\$16.72
Net increase in value per cwt. produced	\$19.01	\$32.95	\$17.35	\$17.34	\$20.11	\$14.02	\$14.42	\$16.92
RETURNS ABOVE FEED COST PER CWT. PRODUCED	\$ 6.73	\$19.72	\$ 7.83	\$ 6.04	\$ 5.40	\$ 4.10	\$ 3.84	\$.20
RETURNS FOR \$100 OF FEED	\$157	\$249	\$182	\$154	\$137	\$141	\$136	\$101
Price received per cwt. market hogs sold	\$15.10	\$14.08	\$14.20	\$18.00	-	\$14.17	\$15.28	\$14.85
Average weight per market hog sold	269	341	206	204	-	260	247	357
Total number of litters raised	17	17	8	22	38	18	13	6
Number of pigs born per litter	9.8	9.4	8.4	10.9	9.7	10.7	9.8	10.0
Number of pigs weaned per litter	8.3	8.2	7.9	9.3	8.3	7.4	8.6	8.2
Number of feeder pigs sold	93	177	-	125	296	-	-	53
Price received per feeder pig sold	\$ 9.49	\$ 9.43	-	\$ 9.88	\$ 9.46	-	-	\$ 9.19
Pounds of hogs produced	16271	5970	7690	19524	14517	35675	25871	4650

(1) Arranged by descending order of return above feed cost per cwt. of hogs produced.

Table 15. Factors of Cost and Returns from Dairy Cows, 1963 (1)

Items	Ave. of	Farm Number							
	16 farms	16	1	3	24	18	20	19	2
Pounds of butter fat per cow	337	419	393	376	372	370	369	369	367
Pounds of milk per cow	9349	12487	10973	10809	10544	10581	10276	10099	10345
Ave. test of milk (percent)	3.7	3.4	3.6	3.5	3.5	3.5	3.7	3.6	3.5
Price per lb. BF sold (cents)	90.8	97.3	96.8	88.1	86.3	95.9	96.1	96.1	89.7
Price per cwt. milk sold	\$3.32	\$3.27	\$3.46	\$3.07	\$3.05	\$3.36	\$3.45	\$3.51	\$3.18
Feed per cow, lbs.:									
Corn	1430	1731	4757	2213	450	772	524	871	1584
Small grain	696	-	1470	425	2664	331	561	711	796
Commercial feeds	973	3381	1506	438	308	3224	2500	44	780
Legume hay	4968	9090	2317	5619	1887	4413	3217	4622	7707
Other hay	542	-	3861	-	1887	276	3585	444	-
Total concentrates	3099	5112	7733	3076	3422	4327	3217	1626	3160
Total hay	5510	9090	6178	5619	3774	4689	15906	5066	7707
Silage	10105	11514	11583	10667	8830	10344	22708	7111	11122
Feed cost per cow:									
Concentrates	\$ 77.46	\$131.99	\$189.41	\$ 79.65	\$ 74.35	\$117.50	\$145.96	\$ 32.60	\$ 84.11
Roughages	80.01	120.06	76.93	85.31	55.14	74.62	78.58	66.02	104.66
Pasture	12.57	12.00	14.48	9.43	13.92	10.14	10.88	15.60	14.05
Total feed cost	\$170.04	\$264.05	\$280.82	\$174.39	\$143.41	\$202.26	\$235.42	\$114.22	\$202.82
Value of produce per cow:									
Dairy product sales	\$291.84	\$346.04	\$355.20	\$307.47	\$318.87	\$346.25	\$349.79	\$334.49	\$324.45
Used in home	5.09	6.11	5.84	6.60	-	3.09	4.63	7.21	3.87
Fed	11.39	52.39	17.68	19.34	2.42	5.52	-	12.12	1.02
Net increase in value of cows	-.34	.22	11.44	-3.47	-2.33	8.70	-2.69	3.82	-10.57
Total value produced	\$307.98	\$404.76	\$390.16	\$329.94	\$318.96	\$363.56	\$351.73	\$357.64	\$318.77
Return above feed cost per cow:	137.94	140.71	109.34	155.55	175.55	161.30	116.31	243.42	115.95
Returns for \$100 of feed	\$200	\$153	\$139	\$189	\$222	\$180	\$149	\$313	\$157
Feed cost per lb. BF (cents)	50.5	63.1	71.5	46.4	38.5	54.6	63.8	31.0	55.3
Number of cows	27.0	16.5	25.9	21.0	26.5	29.0	34.2	22.5	20.5

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

Table 15. Factors of Cost and Returns from Dairy Cows, 1963 (continued)

Items	Farm Number							
	25	4	26	12	23	27	8	7
Pounds of butterfat per cow	352	335	331	299	290	269	269	219
Pounds of milk per cow	9815	9810	9923	7691	6312	7432	7374	5106
Ave. test of milk (percent)	3.6	3.4	3.3	3.9	4.6	3.6	3.6	4.2
Price per lb. BF sold (cents)	95.9	93.3	96.2	83.5	80.7	83.6	81.8	92.2
Price per cwt. milk sold	\$3.44	\$3.19	\$3.21	\$3.24	\$3.69	\$3.02	\$2.98	\$3.96
Feed per cow, lbs.:								
Corn	2602	1688	1740	1626	1759	562	515	-
Small grain	1020	877	69	908	782	-	68	-
Commercial feeds	275	249	2169	381	200	52	1526	-
Legume hay	8402	5480	3094	6839	2755	10345	1526	2171
Other hay	-	-	-	-	-	-	-	679
Total concentrates	3897	2814	3978	2915	2741	614	583	-
Total hay	8402	5480	3094	6839	2755	10345	3052	2850
Silage	15016	14453	11460	11614	5777	-	6102	10179
Feed cost per cow:								
Concentrates	\$ 80.44	\$ 53.69	\$ 94.23	\$ 71.65	\$ 56.48	\$ 13.27	\$ 14.05	\$ -
Roughages	124.64	95.86	64.43	99.55	43.54	95.70	41.34	53.85
Pasture	13.30	14.49	13.58	9.68	12.53	14.10	7.63	15.27
Total feed cost	\$218.38	\$164.04	\$172.24	\$180.88	\$112.55	\$123.07	\$ 63.02	\$ 69.12
Value of produce per cow:								
Dairy product sales	\$323.42	\$290.57	\$306.08	\$244.22	\$211.14	\$212.68	\$204.56	\$194.28
Used in home	3.53	4.87	5.29	5.25	6.52	5.59	8.84	4.27
Fed	10.17	18.24	6.99	-	17.69	6.66	8.31	3.73
Net increase in value of cows	.91	-4.75	- .70	-5.32	-7.39	.25	1.64	4.75
Total value produced	\$338.03	\$308.93	\$317.66	\$244.15	\$227.96	\$225.18	\$223.35	\$207.03
Return above feed cost per cow	\$119.65	\$144.89	\$145.42	\$ 63.27	\$115.41	\$102.11	\$160.33	\$137.91
Returns for \$100 of feed	\$155	\$188	\$184	\$195	\$203	\$183	\$354	\$299
Feed cost per lb. BF (cents)	62.0	49.0	52.0	60.6	38.8	45.7	23.4	31.5
Number of cows	51.4	29.2	34.9	15.5	22.5	31.9	5.9	44.2

Table 16. Feed Costs and Returns from Other Dairy Cattle, 1963 ⁽¹⁾

Items	Ave. of 16 farms	Farm Number							
		16	1	3	24	18	20	19	2
Feed per head, lbs.:									
Concentrates	269	26	332	434	197	333	296	423	917
Hay and fodder	2555	3911	2021	1908	1848	4359	4090	1231	2925
Silage	2200	806	3296	5017	4106	2743	2168	769	1156
Whole milk	276	1144	307	448	41	94	-	615	22
Total feed costs per head	\$50.64	\$83.75	\$44.84	\$63.65	\$40.31	\$47.99	\$55.41	\$54.94	\$55.00
Net increase in value	80.68	47.53	104.97	71.23	78.36	60.11	82.51	187.45	51.71
Return above feed cost	30.04	-36.22	60.13	7.58	38.05	12.12	27.10	132.51	-3.29
Return for \$100 of feed	\$174	\$57	\$234	\$112	\$194	\$125	\$149	\$341	\$94
Number of head of cattle	39.5	24.8	45.5	28.3	48.7	53.2	48.9	13.0	29.4

Items	Farm Number							
	25	4	26	12	23	27	8	7
Feed per head, lbs.:								
Concentrates	93	174	28	289	167	335	-	256
Hay and fodder	3657	2632	3483	3354	1370	3164	-	929
Silage	-	-	2090	2732	3470	-	3529	3318
Whole milk	259	499	93	-	228	131	441	88
Total feed costs per head	\$52.99	\$53.19	\$49.76	\$54.53	\$45.10	\$49.25	\$25.45	\$34.08
Net increase in value	57.35	67.69	50.19	106.05	49.79	103.84	127.02	45.10
Return above feed cost	4.36	14.50	.43	51.52	4.69	54.59	101.57	11.02
Return for \$100 of feed	\$108	\$127	\$101	\$194	\$110	\$211	\$499	\$132
Number of head of cattle	61.8	34.2	86.1	16.1	43.8	49.3	3.4	45.2

(1) Arranged by descending order of pounds of butterfat per cow.

Table 17. Feed Costs and Returns from All Dairy Cattle, 1963

Items	Ave. of 16 farms	Farm Number							
		16	1	3	24	18	20	19	2
Feeds per cow, lb.:									
Concentrates	5249	5152	8316	3661	3783	4938	4009	1871	32924
Hay and fodder	9398	14968	9730	8191	7169	12689	9064	5777	11903
Silage	12984	12726	17374	17429	16375	9723	19006	7555	12780
Total feed cost per cow	\$231.23	\$337.53	\$341.94	\$240.85	\$215.07	\$284.82	\$314.66	\$133.84	\$280.68
Value of prod. per cow									
Dairy products	\$296.93	\$352.15	\$361.04	\$314.07	\$318.83	\$349.35	\$354.42	\$341.70	\$328.32
Net increase in value of cattle	103.76	71.66	195.92	92.54	141.68	119.00	115.29	112.12	63.60
Total value produced	\$400.69	\$423.81	\$556.96	\$406.61	\$460.51	\$468.35	\$469.71	\$453.82	\$391.92
Return above feed per cow	169.46	86.28	215.02	165.76	245.44	183.53	155.05	319.98	111.24
Return per \$100 of feed	\$193	\$126	\$163	\$169	\$214	\$164	\$149	\$339	\$140
Number of cows	27.0	16.5	25.9	21.0	26.5	29.0	34.2	22.5	20.5

Items	Farm Number							
	25	4	26	12	23	27	8	7
Feeds per cow, lb.:								
Concentrates	4009	3018	4047	3215	3067	1131	583	262
Hay and fodder	12798	8562	11689	10324	5422	15236	3051	3800
Silage	15015	14453	16617	14452	12532	-	8136	13572
Total feed cost per cow	\$271.91	\$208.10	\$288.02	\$237.52	\$182.65	\$192.56	\$ 69.38	\$100.24
Value of prod. per cow								
Dairy products	\$326.95	\$295.44	\$311.37	\$249.46	\$217.66	\$218.27	\$213.40	\$198.55
Net increase in value of cattle	69.86	74.54	123.14	104.84	89.52	160.78	74.85	50.87
Total value produced	\$396.81	\$369.98	\$434.51	\$354.30	\$307.18	\$379.05	\$288.25	\$249.42
Return above feed per cow	124.90	161.88	146.49	116.78	124.53	186.49	218.87	149.18
Return per \$100 of feed	\$110	\$178	\$151	\$149	\$168	\$197	\$415	\$249
Number of cows	51.4	29.2	34.9	15.5	22.5	31.9	5.9	44.2