This Business of Farming in Michigan - 1936
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This BUSINESS of FARMING
In MICHIGAN---1936

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MICHIGAN STATE COLLEGE :: EXTENSION DIVISION

EAST LANSING

TYPE OF FARMING AREAS IN MICHIGAN

1. Dairying
2. Corn and Livestock
3. Small Grains and Livestock
4. Dairying and Poultry
5. General Farming
6. Dairying and Potatoes
7. Cattle, Beans and Hay
8. Beans, Beets and Dairying
9. Cattle, Sheep and Forage
10. Forage and Forestry

11A. and 11B. Potatoes and Cattle

12A. and 12B. Fruit

13. Cattle and Forage
14. Cattle, Forage and Potatoes

This Business of Farming in Michigan--1936

State Summary, Annual Farm Business Report, 1,055 Michigan Farms--1936

C. O. MAY AND H. A. BERG[1]

The year 1936 was the eighth year of the Farm Management Extension Project in Michigan. This project, sponsored by the Farm Management Department of Michigan State College, was a part of the county agricultural agents' extension program in 67 counties.

During the spring of 1936 a total of 1,229 farmers had their farm accounts summarized. An annual farm business report was prepared for each type-of-farming area shown on the map, with the exception of Area 10. One thousand fifty-five of the records were included in the area reports. It was necessary to exclude some records as they were on farms of an unusual type, or in some cases, the records were received too late. Later an area report was returned to each individual. This report made possible a comparison of an individual farm with the average of other farms of a similar size and type, as well as a comparison with the more and less successful farms. It is through these comparisons that a farmer can determine the strong and weak points in his business. A study of these comparisons has, in many instances, aided farmers in making adjustments that have materially increased their incomes.

FARM EARNINGS IN 1936

Earnings of Michigan farmers were the highest in 1936 of any year since 1929 when the Farm Management Extension Project was first started. Taking the state as a whole, 1936 was the fourth consecutive year that farm earnings increased.

Adverse weather conditions greatly reduced crop yields in some areas of Michigan for 1936. However, yields were relatively good, compared with the United States as a whole. According to the annual crop summary issued by the Division of Crop and Livestock Estimates of the U. S. Department of Agriculture, the combined yield per acre for 33 important crops was 95 per cent of the 10-year average as compared with 88.5 per cent for the United States.

[1]E. B. Hill, J. C. Doneth, K. T. Wright, H. B. Taylor, and L. H. Brown of the Farm Management Department, and the county agricultural agents in 67 counties assisted with this project.

There was a decided increase in grain prices during the latter half of the year, but the average for the year was only 5 per cent above the 1935 price. On the other hand, the 1936 crops that were put on the market, were disposed of at much higher prices than the 1935 crops. Michigan farmers were able to dispose of some of their usual cash crops, such as wheat, malting barley, beans, potatoes, and fruit crops at very favorable prices.

The price of meat animals remained good throughout 1936, but there was only a 3 per cent increase over the average price for the previous year. While prices were good, the higher feed prices during the latter half of the year made an unfavorable feeding ratio. In general, it might be said that beef cattle feeding, lamb feeding, and hog feeding were no more profitable than in 1935. The price of dairy products was favorable in 1936, while chicken and egg prices were relatively low.

After taking into account the favorable and unfavorable aspects relative to those factors affecting farm earnings, it seems that something happened in practically every type-of-farming area of Michigan to make 1936 earnings the best of any year since 1929.

The fruit areas enjoyed very favorable incomes in 1936. Michigan's 1936 apple crop had the highest value since 1929. The price advance to the highest point since 1929 was due largely to the short national crop and increased consumers' purchasing power. Peach production for 1936 was 13 per cent above the 10-year average. With the short national crop and an extremely short crop in competing areas, prices for Michigan peaches advanced enough to result in a crop of the largest total value since 1920. Pear production and prices were also high, and the crop value reached the highest point since 1930. Cherry production in Michigan reached the highest point in history. The grape crop was small, but prices were 20 per cent above the 10-year average. Truck crops in 1936 for the state as a whole, were valued 34 per cent above the 1935 crop.

In the general farming areas the increased earnings were largely due to increased crop prices which were reflected mostly in increased inventory values and slightly larger sales of crops. Dairying is important in these areas, and the $15 increase in the dairy products sold per cow in 1936 over 1935 contributed toward the larger incomes.

The Saginaw Valley also had conditions favorable to good incomes. The yield of sugar beets was 24 per cent above the 10-year average, and beet prices were the highest since 1930. Bean yields were extremely low, but the increased price more than offset the low yields on many farms. The dairy enterprise contributed toward the increase in earnings as the sale of dairy products increased from $89 to $100 per cow in this area. Grain yields were relatively good as the drouth was not so severe here as in some sections.

The situation regarding the potato crop in Michigan was very similar to that of the fruit crop. The acreage, yield, and production of the 1936 Michigan potato crop was slightly above the 10-year average. However, the nation's crop was the smallest in 10 years. Thus, prices increased and caused the Michigan crop to have the highest value since 1926. In the potato areas of the state the potato crop was about the only bright spot, as the yields of other crops were greatly reduced

Table 1. Five-year comparison of financial returns from Michigan farms, 1932-'36.

Item	1932	1933	1934	1935	1936
Number of farms	831	795	845	933	1,055
Average investment	$12,980	$11,820	$12,200	$12,510	$12,502
Cash receipts	$1,805	$1,825	$2,389	$2,826	$3,353
Cash expenses	1,088	1,000	1,324	1,668	1,869
Net cash income	$717	$825	$1,065	$1,158	$1,484
Net change in inventory	−524	153	252	398	650
FARM FAMILY INCOME	$193	$978	$1,317	$1,556	$2,134
Less: Unpaid family labor	139	138	142	166	191
NET FARM INCOME	$54	$840	$1,175	$1,390	$1,943
Less: Operator's labor	423	420	418	432	538
Return for investment and management	−$369	$420	$757	$958	$1,405
RATE EARNED ON INVESTMENT	−2.84%	3.56%	6.21%	7.66%	11.24%
NET FARM INCOME	$54	$840	$1,175	$1,390	$1,943
Less: Interest on investment at 5%	649	591	610	626	625
OPERATOR'S LABOR AND MANAGEMENT WAGE	−$595	$249	$565	$764	$1,318

by the drouth, the drouth being perhaps more severe in these areas than in any others in the state.

VARIATION IN FARM EARNINGS

Table 1 gives a five-year comparison of the financial returns from Michigan farms on which farm accounts have been kept. During 1936 operators of the 1,055 farms included in this report averaged $1,318 for their labor and management. This earning figure represents what the operator had left for his labor and management after paying

Fig. 1. Distribution of operator's labor and management wage, 1936.

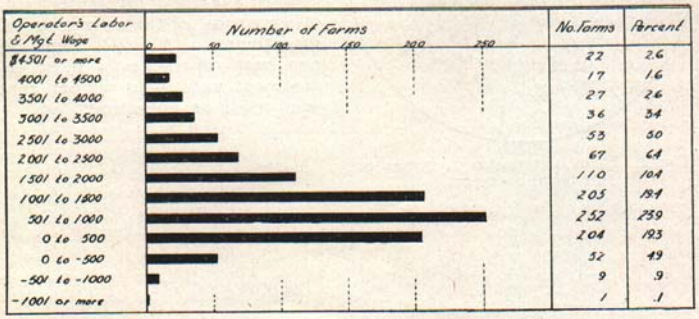

Table 2. Comparison of distribution of operator's labor and management wage, 1929-'36.

Year	1929	1930	1931	1932	1933	1934	1935	1936
Number of farms	427	771	925	831	795	845	933	1,055
Operator's labor and management wage	Percentage of farms in each income group							
$1,001 or more	25%	6%	1%	1%	10%	23%	31%	51%
1 to 1,000	52	32	16	12	55	56	56	43
0 or less	23	62	83	87	35	21	13	6

all cash operating expenses, allowing for depreciation and other inventory losses, charging for family labor other than his own, and deducting 5 per cent interest on the total investment. This measure of earnings does not include any credit for the farm products retained for use by the family.

The accompanying graph (Fig. 1) shows the distribution of the incomes on the 1,055 farms on which records were kept during 1936 while Table 2 gives a summary comparison of the earnings of farm account cooperators for 1929-'36, inclusive.

FARM INVESTMENTS

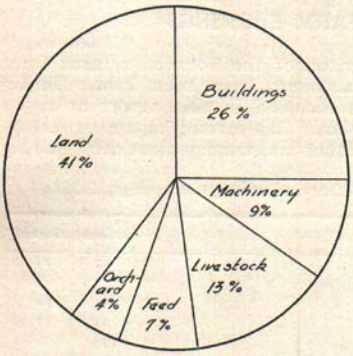

Fig. 2. Farm investments. Average of all farms in report.

Figure 2 indicates the average distribution of the capital invested in the 1,055 farm businesses represented in this report. The real estate (land, buildings, and orchard) accounts for 71 per cent of the total investment. In other words, of the average total investment of $12,502, about 70 per cent represents a fixed investment and about 30 per cent semi-fixed or operating.

FARM RECEIPTS

During 1936, 58 per cent of the receipts on these farms came from livestock, 37 per cent from the sale of crops, and 5 per cent from miscellaneous sources. The income from crops was higher than would normally be expected, since crop prices during 1936 were relatively high. The prices were the highest in several years for wheat, malting barley, beans, sugar beets, potatoes, and all fruit crops (See Fig. 3).

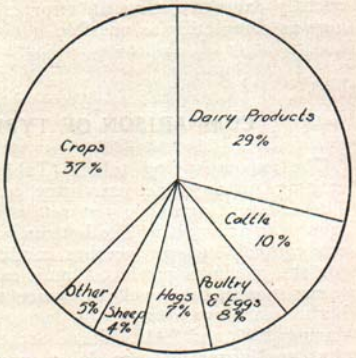

Fig. 3. Farm receipts. Average of all farms in report.

FARM EXPENSES

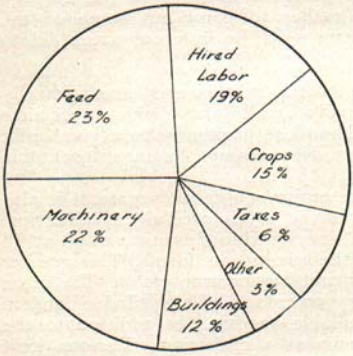

Fig. 4. Farm expenses. Average all farms in report.

Figure 4 shows the relative importance of the expenses involved in operating a farm business. Differences in expenses between individual farms frequently have much to do with the difference in earnings. The important thing to remember regarding expenses is not the amount spent, but whether the money spent is for productive purposes. For example, the operators of many of the high income farms bought more feed than the average, but the feed was fed to productive livestock. These operators were also doing a good job producing feed on their own land before buying extra feed. Money spent for hired labor can well be classed as an investment if the men are kept busy doing productive work. Frequently operators of farms having the lowest crop expenses also have the smallest earnings. On many farms the lack of funds is the limiting factor, but in other instances men continue to stay in the low income groups because they will not spend money for good seed, lime, marl, commercial fertilizers, and similar commodities.

Machinery expenses should be somewhat moderate. A number of

farms have excess machinery costs while perhaps a greater number are too poorly equipped for efficient operation. Building costs are frequently excessive, thus an effort should be made to utilize the buildings as completely as possible.

COMPARISON OF TYPE-OF-FARMING AREAS

The accompanying tables (Tables 3, 4, 5, and 6) show that farm earnings in any one year vary considerably between different areas. The different areas do not retain the same relative position in earnings year after year (See bottom of Table 3). Factors beyond a farmer's control, such as weather conditions and changes in the price level for the products produced, may cause these changes in relative position. It would be well to notice that some of those areas with the higher earnings during the last two years had the lowest earnings during 1931 and 1932. These areas, for the most part, include farms that are larger and are doing much more business than the average farm. It is possible for these larger farms to lose more during years of very adverse prices, and also to make more during normal years or during times when prices are on the upward trend.

The data shown in Tables 3, 4, 5, and 6 give the average for all the farms included in the report, and also the averages by areas. In the brief discussion following it is not intended to refer to the average data presented in the tables, but rather to point out some of the things that the more successful farmers in the different areas did to make them more profitable.

Area 1—The majority of farms located in this area are primarily dairy farms, although there are many small farms which specialize more in poultry and truck crops. The close proximity to a good milk market is one of the major factors determining the most profitable type of farming for this area.

Even though dairying provides the major source of income, it is also important that the cropping program be given careful consideration. The more successful farms in this area produced crops valued at 16 per cent more per tillable acre than the low income farms. This greater value was mostly due to the 13 per cent higher crop yields. The more successful farms also had a higher percentage of the tillable land in corn and alfalfa hay and less in tillable pasture. In addition to the regular feed crops, wheat was grown as a cash crop. Various fruit and truck crops were grown to advantage on many farms.

The superior crop yields and the larger percentage of land in the good feed producing crops (corn and alfalfa) made it possible for these farms to support approximately 20 per cent more livestock per tillable acre. The more profitable farms averaged about 170 acres, of which 132 were tillable and the mature livestock on these farms consisted of 16 dairy cows, 140 hens, and one sow. Sheep are seldom found in this area, as the land is quite valuable and it must be farmed in a rather intensive manner. The livestock income on the more successful farms was 15 per cent more per tillable acre than on the low-profit

Table 3. Acreages, investments, and financial summary on 1,055 Michigan farms by type-of-farming areas, 1936.

Type of Farming Area	All Farms	1	2	3	4	5	6	7	8	9	11A	11B	12AN	12AS General	12AS Fruit	12B	13	14	Chippewa County
Number of farms	1,055	24	79	89	38	178	35	26	103	40	113	35	48	65	26	49	35	57	15
Total acres	161	155	183	178	117	185	176	175	143	146	168	222	144	116	121	88	178	161	207
Per cent of land owned	81	63	70	80	74	71	86	83	82	86	86	91	94	78	96	85	95	96	85
Per cent of farm area tillable	66	74	74	76	74	72	69	81	74	51	55	52	55	70	73	80	48	36	63
Tillable acres	106	115	136	135	87	132	121	141	106	75	92	116	79	82	89	71	85	59	131
Capital Investments, Total	$12,502	$18,697	$15,533	$14,743	$11,216	$15,811	$13,970	$14,168	$15,184	$7,504	$6,991	$10,348	$7,774	$9,590	$16,428	$14,207	$7,559	$9,336	$11,375
Real estate (less house)	8,966	14,337	10,692	10,851	7,885	11,175	10,103	9,834	11,135	5,002	4,622	7,367	5,388	6,888	13,359	11,829	4,727	6,359	7,974
Machinery and equipment	1,098	1,293	1,208	1,091	933	1,242	1,027	1,266	1,253	657	876	799	865	860	1,385	1,194	1,071	1,359	1,295
Feed, crops and supplies	836	1,189	1,207	1,082	783	1,182	940	1,030	1,102	434	559	694	465	586	619	412	479	379	588
Livestock (includes horses)	1,602	1,878	2,426	1,739	1,615	2,212	1,900	2,038	1,694	1,411	931	1,488	1,056	1,256	1,065	772	1,282	1,239	1,518
Cash Receipts, Total	$3,353	$4,204	$4,725	$3,412	$3,178	$4,099	$3,275	$3,944	$3,842	$1,944	$2,080	$2,764	$2,265	$2,568	$5,226	$4,463	$1,965	$2,410	$3,369
Livestock sales, total	2,078	3,119	3,593	2,290	2,737	2,902	2,332	2,588	2,051	1,407	1,022	1,750	1,359	1,744	1,292	840	1,152	1,513	2,438
Crop sales	982	853	811	775	242	874	649	1,083	1,475	314	783	787	660	679	3,646	3,401	600	493	486
Labor off farm	116	65	103	127	106	105	110	74	117	137	144	73	102	74	123	64	122	209	253
Other receipts	177	167	218	220	93	258	184	199	199	86	131	154	144	71	165	158	91	195	192
Cash Expenses, Total	$1,869	$2,424	$2,980	$2,067	$1,881	$2,340	$1,785	$1,988	$1,950	$1,082	$1,139	$1,263	$1,270	$1,388	$2,413	$2,520	$1,076	$1,355	$1,516
Farm improvements	229	182	300	338	250	283	218	245	286	181	140	103	132	212	427	290	122	139	100
Machinery and equipment	546	752	677	568	382	669	576	681	643	360	347	477	424	325	727	703	415	468	614
Livestock purchases	332	440	871	261	277	515	305	428	326	238	206	184	203	199	178	143	178	132	198
Feed bought	260	321	418	344	529	333	176	183	171	93	158	160	188	293	226	215	87	311	195
Hired labor	216	304	345	234	198	225	220	127	213	71	123	139	163	148	565	500	133	117	184
Crop expense	172	232	219	170	141	187	166	198	191	63	100	110	85	120	345	506	76	113	126
Taxes	71	124	92	102	65	79	68	84	78	46	47	62	47	56	79	77	42	48	60
Other expenses	43	69	58	50	39	49	56	42	42	21	18	28	28	35	66	86	23	27	39
Net Change in Inventory	$650	$791	$968	$678	$551	$741	$755	$964	$946	$515	$515	$442	$339	$422	$417	$857	$531	$291	$161
Improvements (Incl. orchard)	85	−44	115	136	87	62	54	79	100	92	50	−34	47	107	102	388	35	34	−25
Machinery and equipment	159	220	190	160	85	228	189	214	203	176	70	187	117	71	200	238	57	49	118
Feed, crops and supplies	249	302	439	256	266	259	315	375	419	79	270	188	113	137	44	170	209	110	5
Livestock (includes horses)	157	313	224	126	116	192	197	296	224	168	125	103	62	107	71	63	200	98	63
Net Cash Income	$1,484	$1,780	$1,745	$1,345	$1,297	$1,759	$1,490	$1,956	$1,892	$862	$941	$1,501	$935	$1,180	$2,813	$1,943	$889	$1,055	$1,853
Plus: Inventory increase	650	791	968	678	551	741	755	964	946	515	515	442	339	422	417	857	531	291	161
Farm Family Income	2,134	2,571	2,713	2,023	1,848	2,500	2,245	2,920	2,838	1,377	1,456	1,943	1,334	1,602	3,230	2,800	1,420	1,346	2,014
Less: Unpaid family labor	191	249	159	180	149	198	215	272	180	150	162	197	175	189	237	205	201	259	204
Net Farm Income	1,943	2,322	2,554	1,843	1,699	2,302	2,030	2,648	2,658	1,227	1,294	1,746	1,159	1,413	2,993	2,595	1,219	1,087	1,810
Less: Interest at 5%	625	935	777	737	561	790	699	708	759	375	349	518	389	473	822	710	378	467	569
Labor Income—1936	1,318	1,387	1,777	1,106	1,138	1,512	1,331	1,940	1,899	852	945	1,228	770	934	2,171	1,885	841	620	1,241
Labor Income—1935	$764	$928	$1,566	$751	$641	$1,007	$929	$687	$912	$464	$456	$769	$471	$506	$392	$569	—	$428	$633
1934	565	455	774	635	816	685	719	1,355	818	327	55	205	224	511	800	951	—	26	767
1933	249	105	−46	130	−8	239	363	157	356	98	651	509	203	187	255	70	—	21	346
1932	−595	−626	−870	−947	−573	−924	−452	−886	−620	−387	−320	−472	−307	−297	−126	−290	—	−455	−470
1931	−676	−746	−790	−1,151	−357	−843	−675	−730	−951	−400	−422	−434	−382	−434	−497	−176	—	−286	−555
1930	−263	−233	−674	−342	−53	−400	104	379	−370	−233	−369	−313	−75	−235	613	357	—	−324	240
1929	585	523	—	520	629	497	544	709	437	362	811	—	1,005	—	—	—	—	773	905

Table 4. Percentage of land in different crops and crop yields by type-of-farming areas, 1936.

Type of Farming Areas	All Farms	1	2	3	4	5	6	7	8	9	11A	11B	12AN	12AS General	12AS Fruit	12B	13	14	Chippewa County
Number of farms	1,055	24	79	89	38	178	35	26	103	40	113	35	48	65	26	49	35	57	15
Number tillable acres	106	115	136	135	87	132	121	141	106	75	92	116	79	82	89	71	85	59	131
Per cent tillable acres in hay, seed and pasture	45	39	42	43	41	45	51	49	34	55	53	56	53	44	28	20	30	56	62
Per cent tillable acres in legumes*	33	30	33	31	31	32	39	34	30	42	29	36	37	33	33	23	47	39	23
Per cent tillable acres in:																			
Tillable pasture	17	14	16	18	14	19	21	23	11	15	22	26	20	14	9	5	19	12	14
Alfalfa hay	17	18	17	16	15	17	19	15	17	27	16	25	22	20	13	10	29	19	2
Other hay	9	6	7	7	13	7	9	9	4	12	14	5	10	10	6	5	11	23	45
Corn	15	19	22	18	22	16	15	10	14	13	12	12	12	14	10	17	6	8	0
Wheat	8	9	12	13	13	11	5	8	8	4	3	3	4	6	4	3	4	1	2
Oats (oats and barley mixed)	12	17	11	8	15	11	16	14	12	13	10	12	13	13	8	5	9	12	18
Barley	3	1	2	0	2	2	2	5	7	1	1	1	1	1	2	0	5	13	8
Beans	4	1	0	1	1	6	2	8	12	4	1	3	1	4	2	1	1	0	0
Sugar beets	1	1	1	0	0	1	0	3	6	0	0	0	0	0	0	0	0	0	0
Potatoes	2	1	1	1	1	1	3	0	1	2	7	5	4	3	1	1	5	6	1
Fruit and truck	4	5	1	2	2	1	1	0	1	1	2	1	6	7	41	44	2	1	0
Other crops	8	8	10	16	2	8	7	5	7	8	12	7	7	8	4	9	9	3	10
Crop Yields Per Acre:																			
Alfalfa hay T.	1.5	1.6	1.6	1.3	1.6	1.6	1.5	1.6	1.6	1.3	1.2	1.2	1.3	1.7	1.6	1.3	1.5	1.7	2.4
Other hay T.	1.2	1.2	1.3	1.2	1.2	1.3	1.4	1.4	1.3	1.0	.9	1.1	1.0	.8	.8	1.1	1.1	1.4	1.0
Corn for silage T.	6.0	6.7	6.4	5.6	5.6	6.2	6.4	6.3	7.6	4.6	4.9	5.6	5.7	5.4	6.5	5.7	5.7	7.0	—
Corn (shelled) Bu.	26	29	30	22	25	27	28	36	35	21	17	20	25	24	19	16	17	25	—
Wheat Bu.	21	26	20	17	17	22	26	29	29	21	11	18	12	18	18	16	17	11	15
Oats Bu.	28	37	38	25	29	32	29	28	38	15	7	15	9	18	31	27	7	14	16
Barley Bu.	22	33	31	—	22	22	23	23	32	15	9	15	7	19	16	—	7	9	12
Beans Bu.	9	—	—	—	—	6	7	11	13	9	6	7	11	9	7	8	8	—	—
Sugar beets T.	10.4	8.2	12.6	—	—	9.7	—	7.1	10.8	—	—	—	—	—	—	—	—	—	—
Potatoes Bu.	135	89	84	130	113	110	116	—	121	73	151	144	163	157	134	96	139	156	164
Value crops prod. per tillable acre	$19.39	$20.84	$18.87	$16.77	$19.39	$17.87	$19.12	$18.75	$27.49	$13.63	$18.88	$18.38	$19.51	$21.66	—	—	$19.47	$23.14	$11.39
Crop sales	982	853	811	775	242	834	649	1083	1475	314	783	787	660	679	$3646	$3401	600	493	486
Feed bought	260	321	418	344	529	333	176	183	171	93	158	160	188	243	226	215	87	311	195

*Tillable land in tree fruits and vineyards is not included in this factor.

Table 5. Livestock, kinds, amounts, and returns by type-of-farming areas, 1936.

Type of Farming Areas	All Farms	1	2	3	4	5	6	7	8	9	11A	11B	12AN	12AS General	12AS Fruit	12B	13	14	Chippewa County
Number of farms	1,055	24	79	89	38	178	35	26	103	40	113	35	48	65	26	49	35	57	15
LIVESTOCK INCOME, TOTAL	$1,886	$2,972	$2,914	$2,146	$2,567	$2,544	$2,211	$2,404	$1,934	$1,295	$942	$1,665	$1,203	$1,650	$1,053	$768	$1,156	$1,484	$2,260
Livestock income per tillable acre*	18.20	26.62	21.45	15.88	29.61	19.21	18.28	17.04	18.27	17.19	10.27	14.33	15.95	20.80	19.56	16.44	13.54	25.37	17.24
Productive animal units	20.7	22.3	32.2	23.6	21.5	27.9	20.7	25.3	20.8	17.8	13.7	20.6	14.2	17.3	12.0	7.4	18.8	15.5	18.8
Til. acre per prod. animal unit*	5.0	5.0	4.2	5.7	4.0	4.7	5.8	5.6	5.1	4.2	6.7	5.6	4.7	4.6	4.5	6.3	4.5	3.8	7.0
CATTLE:																			
Number of dairy cows	9.3	13.6	9.6	9.4	11.8	10.0	12.4	13.6	8.7	7.8	7.5	10.3	8.4	9.4	6.3	4.0	8.4	10.2	11.1
Dairy sales per cow	$104	$154	$106	$108	$120	$113	$120	$106	$100	$75	$76	$89	$80	$99	$104	$106	$68	$108	$149
Dairy sales, total	961	2,100	1,023	1,014	1,410	1,133	1,484	1,433	866	591	573	915	669	928	653	418	569	1,111	1,660
Cattle income, total	1,271	2,393	1,474	1,287	1,689	1,552	1,861	2,064	1,255	856	735	1,189	906	1,182	833	554	901	1,325	1,925
POULTRY:																			
Number of hens	91	119	133	92	222	108	64	112	114	55	42	83	58	111	68	54	42	55	71
Egg prod. per hen	136	148	135	137	141	134	123	126	136	117	119	153	153	142	114	135	117	149	150
Egg sales per hen	$2.15	$2.72	$2.26	$1.97	$2.70	$2.20	$1.78	$2.17	$2.11	$1.59	$1.33	$2.00	$1.82	$2.38	$1.82	$2.00	$1.41	$2.65	$2.31
Egg sales, total	196	323	300	181	599	238	114	242	241	87	55	166	106	264	124	108	60	144	165
Poultry income, total	250	408	384	222	720	337	167	275	278	133	87	198	134	320	137	136	70	142	193
SHEEP:																			
Number of ewes	11	2	20	16	4	27	9	3	9	15	4	14	6	1	2	0	12	0	3
Lambs raised per 100 ewes	95	—	94	95	91	91	103	73	105	110	97	111	73	104	*110	—	102	—	98
Sheep income, total	$129	$11	$365	$168	$21	$309	$97	$20	$95	$169	$30	$146	$41	$9	$19	$0	$106	$3	$39
HOGS:																			
Number of sows	1.2	.6	2.6	2.1	.6	1.6	.4	.2	1.5	.8	.8	.8	1.1	.7	.4	.4	.8	.3	.6
Number litters farrowed	2.0	1.0	4.8	3.6	1.0	2.8	.8	.2	2.7	1.4	1.3	1.4	1.7	1.2	.8	.7	1.2	.5	1.2
Hog income, total	$235	$160	$692	$469	$137	$345	$83	$46	$306	$122	$90	$133	$122	$140	$66	$81	$79	$14	$107

*Tillable land in tree fruits and vineyards is not included in these factors.

Table 6. Labor, machinery, and improvement costs by type-of-farming areas, 1936.

Type of Farming Areas	All Farms	1	2	3	4	5	6	7	8	9	11A	11B	12AN	12AS General	12AS Fruit	12B	13	14	Chippewa County
Number of farms	1,055	24	79	89	38	178	35	26	103	40	113	35	48	65	26	49	35	57	15
MAN LABOR:																			
Number of men	1.9	2.2	2.0	1.9	1.8	1.9	1.9	2.0	1.9	1.6	1.7	1.9	1.8	1.8	2.5	2.3	1.8	1.9	2.0
Man labor cost, total	$945	$1,153	$1,070	$990	$922	$1,004	$995	$966	$969	$676	$740	$876	$808	$877	$1,356	$1,273	$797	$841	$865
Hired labor	216	304	345	234	198	225	220	127	312	71	123	139	163	148	565	500	133	117	184
Charge for family help	191	249	159	180	149	198	215	272	180	150	162	197	175	189	237	205	201	259	204
Charge for operator's labor	538	600	566	576	575	581	560	567	576	455	455	540	470	540	554	568	463	465	477
Man labor cost per tillable acre	8.92	10.06	7.88	7.32	10.63	7.58	8.20	6.84	9.15	8.96	8.09	7.54	10.27	10.70	15.29	18.03	9.34	14.38	6.59
POWER AND MACHINERY:																			
Machinery cost: Total	$258	$376	$314	$267	$220	$257	$248	$290	$300	$147	$184	$184	$199	$200	$378	$336	$257	$286	$344
Per tillable A.	2.43	3.28	2.31	1.97	2.65	1.95	2.05	2.05	2.83	1.95	2.01	1.59	2.53	2.45	4.27	4.76	3.02	4.90	2.62
Per cent farms using tractors	51	92	57	52	50	55	34	62	77	32	31	37	38	40	54	51	43	61	60
Number of horses	2.9	2.8	3.1	3.5	2.8	3.4	3.8	3.3	3.0	2.9	2.4	2.9	2.3	2.6	2.6	2.2	2.7	1.8	2.5
IMPROVEMENTS:																			
Net annual cost: Total	$.42	$212	$182	$174	$145	$193	$164	$156	$171	$88	$81	$129	$82	$114	$144	$107	$82	$104	$122
Per tillable A.	1.35	1.85	1.34	1.29	1.67	1.46	1.35	1.11	1.62	1.17	.88	1 11	1.05	1.39	1.63	1.51	.96	1.78	.93
Investment per animal unit	141	195	119	202	141	144	142	136	175	98	114	135	107	141	236	245	85	142	139
Gross income per tillable acre	$28.61	$24.06	$28.90	$22.30	$31.21	$26.35	$26.07	$27.05	$36.20	$24.04	$21.92	$22.37	$24.63	$27.73	$54.03	$61.77	$23.82	$24.98	$22.06
Total expenses per tillable acre	15.35	19.02	14.26	12.96	18.25	13.35	13.96	12.30	16.54	13.80	12.77	11.99	15.86	17.08	26.51	33.09	14.96	24.35	11.90
Net income per tillable acre	13.26	15.04	14.64	9.37	12.96	13.00	12.11	14.75	19.66	10.24	9.15	10.38	8.77	10.65	27.68	28.52	8.86	10.63	10.16
EXPENSES PER $100 INCOME	54	56	49	58	57	51	54	45	46	57	58	54	64	62	49	54	63	70	54

farms. Most of this difference was the result of having more cows and also of having $27 greater dairy sales per cow.

Area 2—In this area the operators of the one-third more profitable farms had labor incomes of $3,304 compared with $632 for those operating the low-profit farms. Some of this difference was due to the larger acreage per farm in the more profitable group. However, there were many well-organized smaller farms that had high incomes.

The crops on the more successful farms were valued at $23.84 per tillable acre compared with $14.14 on the lower income farms. Of this difference in crop value, some was due to a larger percentage of the tillable land being utilized by the higher valued crops, such as alfalfa hay, corn, barley, sugar beets, and miscellaneous cash crops. Most of the difference, however, was the result of superior crop yields.

The livestock program in this area is more diversified than in any other area in the state. This area is also one of the most heavily stocked. The more profitable farms received $8.98 greater livestock income per tillable acre than the low income farms. These greater returns were the result of having one-third more livestock per tillable acre, and 16 per cent greater income per animal unit.

It is very difficult to attempt to set up a model livestock program that will be most profitable for all farms in this area to follow. In a number of areas, conditions are such that the livestock program must be more or less definitely one type to be profitable, but such is not the case in this area. The majority of farms have breeding herds and flocks, while there are a number of farms on which the operators depend mostly on buying feeder cattle, sheep, and hogs.

The feeding enterprises are often found in Monroe and Lenawee counties and a part of Hillsdale county, since a high percentage of the land in this region is tillable and relatively productive. Under these conditions a number of the men find it to their advantage to use only a small percentage of such land as pasture for breeding herds and flocks. Instead they will produce a greater acreage of corn, other grain crops, and cash crops such as sugar beets, tomatoes, squash, and cabbage. Of course, this practice may prove detrimental to the soil, but the better operators are solving this problem. Commercial fertilizers are used in liberal amounts, sweet clover and other crops are frequently used as green manure crops, and on farms where cash crops are important large amounts of feed are purchased for the feeders, and this of course helps maintain the soil fertility.

The smaller farms (60-100 acres), where regular breeding herds and flocks are kept, depend more on dairy and poultry as their principal sources of income. In some cases a couple of sows may be kept to advantage. On the larger farms of around 200 acres with about 160 tillable, the mature livestock consisted of 12 to 15 dairy cows, 150 hens, 4 sows, and a farm flock of 25 to 40 ewes.

Area 3—While this area is just to the west of Area 2, there are still a number of significant differences to be found between the average farms in the two areas. The farms in this area average about the same in size, but the natural fertility of the soil is not quite so good. Thus, we find a smaller percentage of the land in corn, oats, barley, and

sugar beets, but more in pasture, new seeding (seeded alone), and summer fallow.

Comparing the cropping programs of the more and less profitable groups of farms within the area, there is very little difference in the percentage of land used by the different crops. However, individual farmers who are doing the best jobs are depending mostly on alfalfa and sweet clover for hay, pasture, and green manuring. Some of the farmers are using rye for a green manuring crop, and it also furnishes late fall and early spring pasture. Corn is used as the principal feed crop, while wheat and potatoes are the major cash crops. The oat crop, even though grown on many farms, produces the least feed as well as the least cash value of any of the commonly grown crops.

The livestock program on the better farms centers mostly around the dairy and hog enterprises. Poultry fits in to a good advantage in many cases and there is also a place for a small flock of ewes on a number of the farms. Dairying should be stressed most where it is possible to sell whole milk on the Kalamazoo, Battle Creek or other fluid milk markets. Hogs fit in to good advantage in the southern part of the area where only cream and condensery markets are available. Hogs are suitable here not only because of the supply of skim-milk available for feed, but more because hogs are capable of utilizing some feeds (particularly corn) to better advantage than cows, when only a cream market is available. Some of the best income farmers have made hogs a sizable part of their business in this area. The efficient hog raisers in this area also buy considerable quantities of feed to a very good advantage.

Area 4—This area is known as the dairy and poultry area of the state. Most of the farms are relatively small and in some cases the soil is somewhat light. The relatively small farms account in part for this area having more poultry than any other area of the state, as poultry tends to build up a large volume of business on a small acreage. Another characteristic of the area is that there is more feed purchased per 100 tillable acres than in any other area in the state. This also aids in building up a larger volume of business.

A large percentage of the tillable land is utilized in the production of feed crops. Wheat, although a cash crop in many areas, is used mostly as a feed crop for poultry in this section. In addition to the regular feed crops, there are relatively large areas of muck land on which onions, celery, carrots and other cash crops are grown. Small fruits are also grown to some extent.

The livestock program centers mostly around the dairy and poultry enterprises. Sheep are of no importance and hogs of very little importance in this area. The more successful farms in the group averaged about 135 acres of which 110 were tillable. They had 15 dairy cows and about 250 hens. On the smaller farms the tendency is to reduce the number of cows and maintain or possibly increase the number of hens in order to maintain a sizable volume of business. On a number of the 80-acre farms the gross income is about equally divided between the dairy and poultry.

Area 5—The general farming area of the state ranks along with Area 2 in regard to the great diversity of incomes. When in an area where there is such a diversity, it is difficult to say that any one particular farm organization is going to be the best, because there are a number of ways of organizing the farm and yet have each one be profitable.

Of the 178 farms used in the Area 5 report, the operators of the one-fifth most profitable had $3,458 labor income compared with $202 for those on the one-fifth least profitable farms. Farm earnings, in general, were good during 1936; so the larger farms had an opportunity to do well. Thus we find that the higher income farms averaged 46 per cent more tillable acres. However, there were a number of smaller farms that were well-organized and had very good earnings.

The more profitable farms produced crops valued at $8.92 more per tillable acre than the less successful farms. Part of this difference was due to a higher percentage of the land in alfalfa hay, wheat, and sugar beets and less in tillable pasture. This should not give the impression that more sugar beets should be grown, as there are only a small number of farms in the area that have soil suited to sugar beets. Perhaps the weakest point in the cropping program on the low income farms is the large percentage of land utilized by pasture crops of low carrying capacity. These low income farms had 7 per cent more of the land in tillable pasture, but they had 50 per cent less livestock per tillable acre. Improvement of the pasture crops, and making use of the 3 per cent of idle land should release 10 per cent of the tillable land so more valuable feed crops could be grown. This could well be one of the first steps towards improving the farm business, as there is a need for more feed on these farms. The superior crop yields on the high income farms added to the feed supply as well as to the crop sales.

Differences in the livestock program account for most of the difference in labor incomes between the operators of the two groups of farms. However, it must be said that the crops grown largely determine kinds and amounts of livestock. Most of the farms in this area have breeding herds and flocks, although there are a number of the larger farms on which feeders are handled to a good advantage.

The more profitable group of farms had 50 per cent more livestock per tillable acre and the income was one-third greater per animal unit.

Area 6—This area is one of the dairy and potato sections of the state. As in Area 1, a good milk market is one of the factors causing dairying to be so important. However, the kinds of crops that can best be grown in this area is also a deciding factor. The percentage of land in this area that is tillable is smaller than in most of the southern and central areas. The farms in this area also have a relatively high percentage of the tillable land in oats, hay, and pasture, and less in wheat and corn. The large oat acreage is perhaps partially due to the belief that oats are essential in a dairy ration. Potatoes are the common cash crop found on many farms. There are also considerable acreages of fruit, particularly in Oakland county.

The farms are more sparsely stocked than in most areas. Dairy cattle are relatively plentiful, but the other classes of livestock are not so

much in evidence. The more successful farms, however, were more heavily stocked, especially with cows and hens. The one-third high income farms averaged 235 acres of which 178 were tillable. These farms had approximately 19 cows and 85 hens. The sales per cow were 44 per cent more and the egg sales per hen 30 per cent greater than on the less profitable farms.

The operators of the smaller farms in this area, to be more profitable, must do a more intensive type of farming. They could well afford to give special attention to increasing the dairy returns per cow, and also to making poultry a more important part of their business. Many farmers in this area could afford to buy more feed in order to keep more livestock and do a larger volume of business.

Area 7—This area is designated as the cattle, bean, and hay area of the state. The farms are relatively large and a high percentage of the land is tillable. Much of the land is quite level and drainage is a problem on many farms. Fifty per cent of the tillable land is in hay and pasture, but a smaller percentage of the land is in alfalfa than in many areas. A number of farms continue to produce a surplus of hay. Hay, corn, barley and oats are the principal feed crops while the cash crops include beans, wheat, and in some cases, sugar beets.

In general, the livestock program is not so well developed in this area as in many sections of the state. On many farms there is not enough livestock. In a number of cases feed crops were sold that might better have been marketed in the form of livestock. The more successful farms had slightly more livestock per tillable acre than the low profit farms. The dairy sales per cow and the egg sales per hen were also greater on the better income farms.

Dairying is the major livestock enterprise in this area. However, operators of some farms in addition to having a dairy herd, bought a few feeders in order to utilize the surplus roughage. Poultry is also important on a number of the higher income farms. Sheep and hogs are of practically no importance in this area.

Area 8—This area is classed as the bean, beet, and dairy area and is commonly known as the Saginaw Valley. Some of the most fertile lands in the state are included in this section.

The cropping program is very diversified. The percentage of land in hay and pasture is the lowest of any area, except in the fruit areas. The one-third more profitable farms had 10 per cent less land used for hay and pasture than the low profit farms. This 10 per cent was utilized by more corn, barley, beans, and sugar beets, each crop having an important place on many farms. The higher percentage of land in these higher valued crops, together with the superior crop yields added materially to the earnings on these farms.

Farms in this area are not so heavily stocked as in many sections, as more of the land is utilized in the production of cash crops and less for feed crops. However, the more profitable farms had approximately 20 per cent more livestock per tillable acre than the low income farms. The livestock income was also 10 per cent greater per animal unit. The more successful farms averaged about 170 acres of which 128 were tillable. They had approximately 10 cows, 140 hens, two sows, and occasionally a small flock of ewes.

Area 9—This area is classed as the cattle, sheep, and forage area. One of the most serious problems of the farmers in this area is the difficulty of doing a large enough volume of business to make possible a satisfactory income. The acreage of tillable land per farm is small and 55 per cent of it is in hay and pasture. The soils for the most part are relatively low in fertility.

Alfalfa hay and corn are the best feed crops. Considerable oats are grown, but the yields are too low to make them have much value for either feed or cash. Wheat, beans, and potatoes are the cash crops, but the acreage of each is too small to make the crop sales of any consequence.

Dairying is the principal livestock enterprise. Some of the cows, however, are more of a dual-purpose type. Since the principal outlet for the dairy products is in the form of cream, many farmers feel that it is to their advantage to try and produce good veal calves and possibly some steers. A number of farmers tend to favor strictly beef cows, but it seems advisable to discourage keeping a beef breeding herd, except on the large farms. A large acreage is necessary in order to keep enough beef cows to make possible a sufficient volume of business.

The more successful farms averaged about 160 acres of which 92 were tillable. These farms had an average of 10 cows, 21 ewes, one sow, and 70 hens. In addition to the income from sale of milk and cream, there was also considerable income from the sale of young cattle and surplus cows.

Area 11A—Many of the farmers in this area are following a system of farming that will lead to disappointment each year, so far as earnings are concerned. The organization and practices are such that a reasonable income will never be possible under the most ideal crop season and the most ideal price conditions.

The one-third low income farms averaged about 150 acres of which 82 were tillable. Fifty-seven per cent of the tillable land was in hay and pasture while only 17 per cent was in legumes. The other crops included corn and oats and about 2.5 acres of potatoes. The 2.5 acres of potatoes yielded the same as one acre did on the higher income farms. With such a cropping program, the total crop sales were only $183. The total livestock income was only $593 for the year even though much of the land was used in the production of feed crops, and $136 of additional feed was purchased.

In contrast with the above picture, the more successful farms had 28 acres more tillable land. They had a lower percentage of land in hay and pasture but more than twice the percentage of land in legumes. These farms had about 70 per cent more livestock, but they used only 57 per cent as many acres of tillable pasture. Some of the operators of these farms are starting to use alfalfa and smooth brome grass for pasture. Other than alfalfa, corn was the principal feed crop. Considerable oats are still grown, but the highest income farmers are eliminating oats as much as possible and are growing more wheat. Potatoes is the major cash crop in this area and these farms average 11 acres of this crop. These better farmers are using good seed, fertilizing well with commercial fertilizer, as well as barnyard manure,

and are following the recommended spraying practices. Some of the farmers in this group are producing certified seed. Crop sales on the one-third more profitable farms averaged $1,630 in 1936, as compared with $183 on the low income farms.

The mature livestock on the best farms in this area consisted of 10 to 12 cows of a strictly dairy breed, about 150 hens, and one sow. Such a livestock program requires the buying of some feed, but the best income farmers are following the practice of keeping more livestock and buying the additional feed needed.

Area 11B—This area is classed as one of the potato and cattle areas of the state. Potatoes is the principal cash crop, while dairying is the major livestock enterprise.

The operators of farms in this area who are the most successful have farms slightly larger than the average. In their cropping programs there is a higher percentage of land in legumes (principally alfalfa), wheat, and potatoes. Crop yields were also higher as a result of better crop and soil management practices.

The higher income farms had 24 per cent more livestock per tillable acre and also greater returns per cow, sow, ewe, and hen. One of the most important differences in returns was the $24, or 30 per cent, greater product sales per cow. Sheep and poultry were of practically no consequence on the low income farms as the incomes from both totaled only $113, while on the more profitable farms the income from sheep and poultry was $550. This is a very significant difference.

Area 12A-North—The type of farming in this area is very similar to that found on many farms in Area 11A, except that more fruit and truck crops and less feed crops are grown in this region. Much of the discussion under Area 11A applies also to this part of Area 12.

There are some farmers in this area who depend largely on fruit as the principal source of income, and where such is the case, there is a tendency for the incomes to fluctuate widely from one year to another. Many of the farmers think it advisable to have a somewhat steadier income and in such cases they plan to have a few acres of fruit (especially cherries) and then the general farming of a similar type to that found in Area 11A. Farmers with the combination of fruit and general farming seem to have fewer worries.

Of the farms included in the Area 12A-North group, the one-third more successful farms had 25 per cent more livestock per tillable acre and the returns per animal unit were 40 per cent greater than on the less successful farms. The mature livestock on these farms consisted of approximately 11 cows, 75 hens, and one sow. Sheep in this area are of very little importance.

Area 12A-South—In this area there are farms on which a general type of farming is followed and there are also those on which fruit furnishes a major portion of the income.

On the general dairy farms two-thirds of the gross income was from livestock and one-third from crops. The crop income came mostly from the sale of potatoes, and to a minor extent from wheat and beans.

The more successful farms kept 50 per cent more livestock per tillable acre and they also received greater returns per animal unit than

the less successful farms. The one-third more profitable farms averaged 96 tillable acres and the mature livestock on these farms consisted of 12 cows, 134 hens, and one sow.

On the fruit farms a similar organization to the above existed, except that approximately 40 per cent of the land was in fruit and truck crops. The number of cows was reduced to eight and the number of hens to 75. Sheep and hogs were of no importance on any of these farms.

Area 12B—This area includes those farms in the southwestern counties on which fruits are grown on a commercial basis. Many of the farmers depend on fruit as their only source of income while in a number of cases livestock fits into the farm business to good advantage. On farms where fruit is the only source of income there is a tendency for the incomes to fluctuate more than on the general farms. This, of course, is mostly due to the fact that the fruit crop is more dependent on weather conditions than is livestock farming.

Setting up a model farm program for farms in this area is just as difficult as in the general farming area. In this area many farms have soil and site conditions suitable for a number of kinds of fruit. There may also be, especially on the larger farms, a sufficiently large acreage that might be more economically used in the production of feed crops than in the production of fruit.

The farmers in this area who come nearest to having consistently good incomes year after year are those who have several sources of income. The fruit programs on these farms will frequently include apples, peaches, cherries, pears, and plums. There may also be a few acres of small fruits, grapes, and various truck crops. The better farmers are careful in the selection of the best varieties for their particular farms.

Many of the smaller farms are utilized almost entirely for the production of fruit and truck crops, but on the larger farms frequently some of the land is used in the production of feed crops. It is on these farms that a herd of dairy cows fits in to a good advantage and in some cases poultry can be kept to an advantage. Poultry is more particularly desirable on those farms located so that much of the produce may be retailed from a roadside market. The dairy and poultry enterprises provide a steady income throughout the year and in many cases help utilize family labor that would otherwise be wasted. Many farmers place a high value on the manure that is produced by the cows. The use of the manure greatly reduces the expense for commercial fertilizer.

Area 13—This area is classed as one of the cattle and forage areas of the state. Of the farms included in the 1936 report, 64 per cent of the tillable land was in hay and pasture. In addition to the tillable pasture there are also large areas of wild land pasture. The common feed crops other than hay are corn, and oats, and to a lesser extent barley. Potatoes is the major cash crop, with wheat and peas of secondary importance. Small fruits are fairly important on some farms.

The more successful farms produced crops valued at $8.21 more per tillable acre than the less successful farms. Some of this difference was due to having a higher percentage of the land in legumes and

potatoes, and part to higher crop yields. The one-third high income farms produced six acres of potatoes per farm compared with 2.4 acres on the low-profit farms. The total potato production was 948 bushels on the high income farms compared with 255 bushels on the low profit farms. This difference was significant and especially so during 1936 when potato prices were relatively high.

The livestock program in this area tends to include more of the dual-purpose cattle and beef cattle than in most areas of the state. In most cases only a cream market is available for the dairy products. Such a market is not encouraging to the "mine run" dairy farmer. On a number of farms the pastures are of poor quality, very little grain is available for winter feeding, and the housing facilities are not too well adapted for dairying. Under these conditions, the cream sales per cow would be very low and would lead such farmers to keep dual purpose or beef cattle that require less labor and building expense. The young cattle can run on the pasture and be sold off of pasture in the fall. While this system has possibilities on the large farms where large numbers of cattle can be handled it seems inadvisable on the average or smaller than average farms.

It seems more advisable at least on the average size farm to improve the feed supply and keep dairy cows, raise all the heifer calves and let the sale of surplus cows serve as one source of cash income. The more successful farms included in the report, had one-third more livestock per tillable acre and also had higher returns per animal unit than the less successful farms. The high income farms averaged 9.2 cows, some young cattle, 50 hens, 16 ewes, and one litter of pigs.

Area 14—This area is classed as the cattle, forage and potato section of the state. The territory included is rather large, so there are considerable variations in the soils, climate, and markets between different parts of the area. Thus, it is difficult to make specific statements that would apply in all parts.

One of the problems, however, that is common, is the small acreage of tillable land. This is one of the limiting factors on many farms, as it makes it difficult to do a large enough business. There are other factors, however, that are just as important.

The more successful farms were only slightly larger than the low profit farms, but they had a gross income more than twice as large. Practically all of this difference was due to three factors: (1) potato acreage, (2) potato yields, and (3) dairy sales per cow. The high income farms averaged 5.5 acres of potatoes per farm with an average yield of 188 bushels or a total of 1,032 bushels. The low income farms had 2.16 acres of potatoes per farm with an average yield of 130 bushels or a total of only 280 bushels. This is a difference worthy of considerable attention, when planning how to increase farm earnings in this area of the state.

The number of cows was practically the same on both the high and low income farms, but the sales per cow were $43 greater on the high income group. Most of this difference may be attributed to better feeding and better dairy management practices. This is another difference of great importance to the welfare of farmers in this area.

The differences in the potato and dairy enterprises together with a

little greater income from cattle sales and poultry gave the operators of the one-third more successful farms labor incomes of $1,353, while the operators of the low income farms were "in the red" $14.

Chippewa County—In general the farms in this county have a high percentage of the tillable land in hay and pasture and the farms are rather sparsely stocked. Unlike some areas of the state, only a small percentage of the hay is alfalfa while much of it is timothy. The poor drainage on the relatively level, compact soils undoubtedly is one of the chief obstacles in the way of growing alfalfa satisfactorily on many farms. However, more farmers each year are finding a place for alfalfa.

The more profitable farms represented in the farm account project in this county had 14 per cent less of the land in hay and pasture than the less successful farms. This land was utilized in the production of more small grains. At one time there was a ready market for the hay produced in this area, but since that market has tended to disappear it seems advisable to attempt to grow less hay and expand the grain crops to some extent.

With some shift in the cropping program, a number of the farms could well afford to increase the amounts of livestock, particularly cattle and to some extent, poultry. A small number of farmers have succeeded in developing a retail market for their milk and eggs, but for the majority of farmers such a program would be out of the question, as the towns are not large enough to absorb all of the produce. Thus, most of the farmers will need to keep enough good cows to utilize the roughage, pasture, and most of the feed grains. A flock of good hens can also fit in to a good advantage on many of the farms. Some grain and milk will be available for the hens, but mash will need to be purchased.

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