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Report 39

UNIVERSITY OF MINNESOTA
Department of Agriculture
and
UNITED STATES DEPARTMENT OF AGRICULTURE
Bureau of Agricultural Economics
Cooperating

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SECOND ANNUAL REPORT
of the
Better Farming Club
of
Freeborn County

By

W.P. Ranney and G.A. Pond
R.C. Bevan, Field Agent
W. M. Lawson, County Agent

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Division of Farm Management and Agricultural Economics
University Farm
St. Paul, Minn.
April 1930.

Second Annual Report of the Better Farming Club of
Freeborn County for the Year 1929.

Prepared by W. P. Ranney and G. A. Pond

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INTRODUCTION

The Division of Farm Management and Agricultural Economics and the Division of Agricultural Extension of the University of Minnesota, the Bureau of Agricultural Economics of the United States Department of Agriculture and twenty-three farmers in Freeborn County, Minnesota, have been cooperating during the year 1929 in a farm account project, known as the Better Farming Club of Freeborn County. Three more farmers completed the project in 1929 than in 1928. The work was started January 1, 1928 along with similar clubs in nearby counties, viz., Dodge, Goodhue, Rice, Steele and Waseca counties.

The project has been under the direction of G. A. Pond of the Division of Farm Management and Agricultural Economics, University of Minnesota, with the assistance of other members of the same department: W. P. Ranney, one of the authors of this report; and H. L. Donovan of the Agricultural Extension Division, who aided in closing the books at the end of the year 1929. Hearty support and assistance has been rendered by W. M. Lawson, County Agricultural Agent of Freeborn County.

Type of Farming in Freeborn County.

The farms selected for the study are livestock farms on which dairy cattle are the principal source of income. Cream for manufacture into butter is the principal dairy product sold. This is marketed through farmer owned cooperative creameries specializing in the manufacture of high quality butter. The skim milk is retained on the farm and fed to hogs and poultry. These two classes of livestock are also an important source of income.

The principal crops grown are corn, oats, barley and hay. These crops are raised primarily as livestock feed altho a seasonal surplus may be sold. Wheat, potatoes, flax and sugar beets are grown to a limited extent as cash crops. These farms are fairly typical of the system of dairy farming prevailing in southeastern Minnesota. This report shows that the receipts from the sales of dairy products constitute approximately one-third, and receipts from hog sales about three-tenths of the average cash income for the 23 cooperators in Freeborn County. These are approximately the same results as shown by the 1928 report.

Records Kept

The records kept by the cooperators included inventories at the beginning and end of the year, cash receipts and expenses, a report of feed fed to the various classes of livestock, and a record of farm produce used by the farm family. Supplementary information was also secured during the year regarding crop and livestock production and practices.

The cooperators were assisted and supervised in keeping their records by the field agent, Mr. R. C. Bevan, who visited each farm in the six counties several times during the year. In addition to securing the supplementary information, the field agent's duties included numerous services, viz., securing a monthly list of prices of farm products prevailing in the area, helping the farmer to place uniform values on real estate and equipment, checking the cash and feed records, and answering any questions that might arise as to how the entries should be made in the account book. The supervision resulted in uniformity in the type of records secured, in the inventory valuations and in the prices at which feed and farm produce were charged.

At the end of the year each farm was visited by a representative of the University who checked the records for completeness and accuracy. The books were then taken to the central office at University Farm, where every entry was again checked and commissions were noted. Any discrepancies found were referred back to the farmers for correction. This double checking insured a high degree of accuracy and completeness in each individual record.

Purpose of Project

The Better Farming Club renders assistance to the cooperators in keeping such records as will enable each operator to know the returns for his labor and management, the returns to capital and family labor, and the actual earnings from the farm that the family had to spend for living and personal use. The main purpose of the Club is to secure such data and information, which when compared with that secured on other farms will enable the cooperator to increase his efficiency in various enterprises and to organize his farm on a more profitable basis. For the latter purpose it was necessary for all the cooperators, tenants as well as owner operators, to include the whole farm business in order that the results would be on a comparative basis. The earnings as shown in this report are computed on an owner basis for the purposes of comparison, but each tenant was supplied a statement of his earnings on the basis of the rental system under which he was operating. Altho there is some variation in prices paid for feeds bought, uniform prices were used in making up the feed summaries and in placing values on the inventories of feed and farm products.

Capital Investment in Farm Business

The average size of the farms in this report was 205 acres. The average farm inventory was \$31,035. This does not include the value of the house in which the operator lived. As changes were made in size of farm in a few cases, and a few additional cooperators included, the average size is 28 acres above that in 1928, in which year the average size was 177 acres, and average farm inventory was \$26,789. But the distribution of the inventory was practically the same in both years. In 1929, fifty-seven per cent of the average farm inventory consisted of land; 15 per cent of permanent improvements; 8 per cent of feeds and supplies; 7 per cent of machinery and equipment; and 13 per cent of livestock, of which approximately two-fifths or an average of \$1,657 consists of the average cow inventory.

Analysis of the Farm Business

On page 5 and 6 are presented financial summaries of the year's business, showing the average results for the 23 farms on which the work was completed for the twelve months period, January 1, 1929 to December 31, 1929 and the high and low figure for each item. In the "your farm column" the results of each individual farm business is inserted in the copy sent to the farmer in order that he may compare his figures with the average.

The data on page 5 and the remaining pages, which set up the ranking in the various measures of efficiency, should suggest to each cooperator some possibilities for improvement in his organization of the various enterprises and of his business as a whole. Altho each farm is an individual problem, and has its particular advantages and limitations, the type of farming is fairly uniform in this county and undoubtedly is adapted to the present general conditions. This study should bring out trends that may be taking place toward more profitable combinations of enterprises, and to the more efficient methods of management within the enterprises.

Returns to Operators for Their Labor and Management

The average cash receipts per farm were \$6016. In addition farm produce to the value of \$366 was consumed by the farm family and there was an average inventory increase of \$844 per farm. The total average receipts per farm is the sum of these three items, \$7226. The average total expense per farm, \$2913, includes \$2786 cash expense and an estimated allowance of \$132 for board of hired labor. The difference between the total income and total expense figure is \$4308. This is the return which the farmer received for his own labor and management, the services of members of his family and the use of his capital. After deducting a charge of 5 per cent on the average inventory valuation, \$1552, for the services of capital, there remains \$2756 for the services of the farmer and his family. The average value of family labor used, if computed at hired man's wages was \$322. The average operator's labor earning is the family earnings less their allowance of \$322, or \$2434. This is the return to the farmer for his labor and management over and above a 5 per cent return for his capital and going wages for other members of the family.

Comparison with Previous Year

In making a comparison of the 1929 results with those of 1928 it should be remembered that there were several changes made and three additional farms included in the 1929 report. The average operator's labor earnings per farm for the farms in 1929 were \$888 higher than for those in 1928. Cash receipts were \$1031 higher in 1929 and the increase in inventory was \$317 higher. Expenses were \$243 greater in 1929, and due to a larger inventory, interest on investment was \$214 higher. Changes in other items were small. The higher cash receipts and inventory increase were due primarily to the increased average size of farms, larger production of pork and higher prices for hogs sold. The average price received for the sale of hogs was \$1.21 per hundred pounds higher in 1929 than in 1928. Butterfat prices were lower near the close of 1929, while eggs averaged the same for both years. The average production of butterfat per cow for the 1929 group of cooperators was 252, while that for 1928 was 240. The group in 1929 produced on the average 3480 pounds more pork than the cooperators who were in the project in 1928. After adjusting cash items for changes in inventory, there was an increase of \$513 in gross returns for hogs and \$295 from cows, with only slight changes for the other classes of livestock.

There were 14 farmers who were in the project in both years. The average earnings for these 14 farmers was \$1627 in 1928 and \$2585 in 1929, which shows an average gain of \$958. Only three farmers had lower earnings in 1929 than in 1928.

Summary of Farm Inventories

Items	Your Farm	Average	High Farm	Low Farm
Size of Farm (acres)		205	426	70
Size of Business (prod. man work units) (1)		712	1194	564
Average Farm Inventory (without house)		\$31035.	\$52509.	\$15830.
Land		17779.	37400.	5480.
Farm Improvements		4631.	8135.	1733.
Machinery & Equipment (total)		2056.	4626.	629.
General Machinery & Equipment		1445.	3135.	529.
Tractor		258.	1173.	-
Truck		74.	400.	-
Auto (farm share) (2)		166.	713.	-
Gas Engine (farm share)		35.	160.	-
Electrical Equipment (farm share)		77.	606.	-
Feeds and Seeds		2373.	5629.	889.
Misc. Supplies		15.	94.	-
Horses (total)		585.	1393.	248.
Horses		540.	1175.	248.
Colts		45.	218.	-
Productive Live Stock (total)		3596.	8183.	1354.
Cows		1057.	3753.	615.
Other Cattle		915.	3045.	165.
Hogs		778.	2362.	87.
Sheep		59.	333.	-
Poultry		187.	480.	-

Statement of Average Amounts of Live Stock

Items	Your Farm	Average	High Farm	Low Farm
Total Horse Animal Units (3)		6.2	9.7	3.0
Horses		5.8	9.0	3.0
Colts		.4	2.0	-
Total Productive Animal Units		39.1	85.9	18.8
Cows		17.2	26.0	7.3
Other Cattle		10.2	27.1	4.4
Hogs		9.5	21.8	1.0
Sheep		.6	8.5	-
Poultry (hens)		1.6	6.1	-
Number of Cows per Worker		8.6	13.4	5.6
Number of Cows per 100 Acres		9.1	21.0	4.1

- (1) Productive man work units are a measure of size of business based on the average amount of man labor required per head of productive livestock and per acre of crops. They may also be used as a measure of labor efficiency. The units used were computed from data presented in Minn. Tech. Bul. 44, "A Study of Dairy Farm Organization in Southeastern Minnesota".
- (2) Farm share based on farmer's estimate of amount used for farm purposes only.
- (3) An animal unit represents an average mature horse, cow or the equivalent in other livestock, based upon the amount of feed eaten and manure produced. The above units are computed as an average of the monthly units.

Summary of Farm Earnings - 1929

CASH EXPENSES

	Your Farm	Average	High Farm	Low Farm
Tractor (new & exp.)		\$230.	\$1249.	\$ -
Truck (new & exp.)		129.	931.	-
Auto (new & exp.) (farm share)		104.	530.	-
Gas Engine (new & exp.) (farm share)		25.	96.	-
Elec. plant or Current (new & exp.) (farm share)		25.	281.	-
Machinery & Equipment (new)		292.	2246.	17.
Machinery & Equipment (exp.)		90.	368.	23.
Bldgs., fences, tiling (new)		121.	567.	-
Bldgs., fences, tiling (exp.)		52.	280.	-
Hired Labor		333.	1033.	-
Feed for Livestock		439.	1250.	2.
Other Expense for Livestock		67.	346.	5.
Horses Bought		44.	300.	-
Cows Bought		32.	510.	-
Other Cattle Bought		82.	325.	-
Hogs Bought		41.	200.	-
Sheep Bought		3.	50.	-
Poultry Bought		47.	135.	-
Crop (Seed, Twine, Spray)		205.	450.	54.
Taxes and Insurance		576.	970.	194.
General Farm		24.	67.	-
(1) Total Cash Expense		2786.	5975.	1009.
(2) Decrease in Farm Inventory		-	1544.	-
(3) Board for Hired Labor		132.	480.	-
(4) Total Expense (sum of 1, 2, & 3)		2918.	7750.	1009.

CASH RECEIPTS

Horses	36.	665.	-
Cows	346.	1708.	-
Dairy Products	1995.	3248.	800.
Other Cattle	458.	1416.	21.
Sheep	28.	419.	-
Hogs	1844.	4975.	136.
Poultry	132.	462.	-
Eggs	303.	1487.	-
Small Grain	249.	1626.	-
Corn	86.	768.	-
Hay	20.	293.	-
Root Crops	176.	2553.	-
Other Crops	11.	139.	-
Miscellaneous	233.	2128.	-
Outside	99.	720.	-
(5) Total Cash Receipts	6016.	14269.	3050.
(6) Increase in Farm Inventory	844.	3344.	-
(7) Farm Produce Used in House	366.	636.	117.
(8) Total Receipts (sum of 5, 6, & 7)	7226.	14570.	3605.
Total Expense (4)	2918.	7750.	1009.
(9) Returns to Capital and Family Labor (8-4)	4308.	7006.	2113.
(10) Interest on Farm Inventory	1552.	2915.	791.
(11) Family Labor Earnings (9-10)	2756.	4825.	1030.
(12) Unpaid Family Labor	322.	900.	-
(13) Operator's Labor Earnings (11-12)	2434.	4585.	774.

Summary of Farm Earnings, 1949 (A)

<u>EXPENSES AND NET DECREASES</u> Items	Your Farm	Average	High Farm	Low Farm
Total Power Machinery & Equipment		\$ 313.	\$1050.	\$ 49.
Tractor		100.	583.	- 87.
Truck		69.	388.	-
Auto (farm share)		96.	464.	-
Gas Engine (farm share)		27.	118.	-
Elec. Plant or Current (farm share)		23.	151.	-
General Machinery & Equipment		214.	547.	-96.
Bldgs. Fencing, Tiling.		204.	599.	-18.
Hired Labor		333.	1038.	-
Prod. Livestock Misc. Expense		86.	339.	5.
Crop		205.	450.	54.
Taxes and Insurance		376.	970.	194.
General Farm		24.	67.	-
Board for Hired Labor		132.	480.	-
Decrease in Crops and Feeds		-	1047.	-
Unpaid Family Labor		322.	900.	-
Decrease in Horses		7.	110.	-
Misc. Expense for Horses		1.	8.	-
Interest on Farm Inventory		1552.	2915.	791.
(1) Total Expenses		3774.	6981.	1806.
<u>RETURNS AND NET INCREASES</u>				
Increase in Crops and Feeds		686.	3074.	-
Gross Returns from all Prod. Livestock		5756.	9583.	2837.
Cows		2482.	4276.	1125.
Other Cattle		826.	2761.	126.
Hogs		1921.	4483.	232.
Sheep		26.	424.	- 29.
Poultry		501.	2085.	-
Outside and Misc. Receipts		114.	930.	-
Increase in Horses		-	150.	-
(2) Total Returns and Net Increases		6556.	10727.	3543.
(3) Products used on the Farm		348.	697.	179.
(4) Gross Returns (2-3)		6208.	10493.	3365.
Total Expenses (1)		3774.	6981.	1806.
(5) Operator's Labor Earnings (4-1)		2434.	4585.	774.
Gross Returns per \$100 Expense		169.	279.	111.

(A) Cash receipts and expenses are adjusted for changes in inventory for each enterprise and for each item of expense in order to show gross returns and net increases, and total expenses and net decreases. The operator's labor earnings are the same as those on page 5.

Utilization of Land and Yield of Crops - 1929

Crop	No. Farms growing this crop	Acres per Farm		Yield per Acre		
		Your Farm	Average	Your Farm	Average Highest	Lowest
Wheat	3		2.3	23.3	25.3	19.5
Oats	12		12.6	46.9	80.0	22.7
Barley	13		11.2	33.2	46.7	20.5
Rye	4		2.6	19.9	38.3	6.2
Flax	2		1.7	9.6	11.8	7.4
Wheat & Oats	7		10.0	38.8	46.9	25.6
Oats & Barley	13		20.7	46.5	65.6	30.3
Other Grains & Mixtures	1		0.3	69.2	-	-
Total Grain			61.4			
Corn, grain	23		37.7	45.9	66.7	30.0
Corn, silage	20		11.0	9.1	12.5	5.8
Corn, fodder	10		2.8	3.3	4.0	2.4
Potatoes	15		1.2	120.8	230.0	60.0
Sugar Beets	1		0.4	5.2	-	-
Total Cultivated Crops			55.1			
Alfalfa	23		10.3	2.8	4.3	1.5
Clover & Clover Mixtures	16		9.1	1.8	2.5	1.0
Timothy	3		0.7	1.4	2.0	0.9
Annual Hay Crops	2		0.2	1.5	2.0	1.0
Wild Hay (on tillable land)	5		1.1	1.0	1.5	0.6
Wild Hay (on non-tillable land)	13		7.8	.09	1.5	0.5
Total Hay			29.2			
Total Crop Acreage			143.7			
Sweet Clover Pasture	8		3.6			
Miscellaneous Legume Pasture	9		2.8			
Other Tillable Pasture	11		12.0			
Non-tillable Pasture	17		25.3			
Total Pasture			43.7			
Timber - Not Pastured	5		1.8			
Roads & Waste	23		8.3			
Farmstead	25		7.3			
Total Acres in Farm			204.8			
% of Land Tillable			75.3			

Each cooperator should bear in mind that the amount by which he is above or below the average may be as important as the number of factors in which he is high or low. For example, the farm that ranks lowest in respect to operator's labor earnings, is above the average in four factors, but is so far below the average in two factors that these offset the effect of the other four and reduce his earnings to the low point.

Measures of Farm Organization and Management Efficiency

Farm No.	Opera. Labor Earn	Index of Crop Yield	Lbs. of B.F. per Cow	Returns above feed per			Expenses per work unit			Prod. Units per Work-er	Prod. Live Stock per 100 A	Total No. Units Work	
				Cow	Head	100	Hen	Farm	Gen.				Bldgs.
					of Other Cat- tie	lbs. of Pork		Power	Mach. and Eq.				Fenc. and Til- ing
2197	\$4585.	113	276	\$66.94	\$36.70	\$2.19	\$1.29	\$.94	\$.52	\$.21	419	23.1	1005
2161	4132.	103	255	79.36	26.93	3.78	1.93	.86	.32	.33	288	22.1	690
2201	3845.	104	289	81.17	7.17	4.22	1.36	1.26	.34	.37	432	13.9	864
2103	3412.	91	258	94.12	-5.50	5.07	2.56	.77	.41	.18	377	24.9	866
2199	3359	99	269	75.13	13.73	5.02	1.05	.84	.27	.30	405	16.8	846
2191	3237.	123	326	117.19	47.15	4.89	2.15	.71	.03	.45	280	15.7	364
2196	3010.	115	255	84.93	30.74	4.73	2.81	.74	.15	.34	326	22.6	685
2082	2941.	106	204	49.09	16.23	4.14	2.28	1.23	.26	.28	465	25.2	929
2121	2751.	84	227	65.45	12.72	3.82	.86	.93	.33	.21	569	23.9	1194
2102	2714.	98	319	118.38	3.78	1.64	-	.81	.29	.10	293	15.6	733
2031	2698.	102	225	64.11	20.60	2.65	2.25	.81	.16	.31	411	20.2	739
2221	2621.	84	245	74.21	14.69	2.93	.89	1.34	.29	.33	337	11.1	1009
2132	2307.	99	214	61.55	14.97	1.90	2.62	.64	.29	.19	518	20.9	621
2022	2241.	89	284	87.94	13.22	4.41	2.58	.87	.29	.10	287	18.5	545
2062	2198.	92	265	78.69	22.09	5.18	2.07	.79	.15	.19	388	15.1	466
2101	2140.	105	209	57.17	1.68	2.37	-.48	.85	.25	.30	410	20.2	860
2194	1734.	102	230	43.12	-4.74	2.39	.73	1.25	.37	.16	411	14.2	576
2198	1333.	89	236	82.97	10.99	.76	3.07	.66	.19	.30	348	15.2	418
2011	1107.	84	200	64.08	-.94	4.50	1.67	.69	.31	.35	252	17.9	504
2081	970.	118	220	52.27	2.11	1.74	1.10	1.04	.22	.09	295	22.7	620
2051	949.	69	226	66.24	-14.34	.38	5.30	.65	.46	-.03	290	19.7	579
2182	932.	104	291	70.35	43.86	3.88	.87	.71	-.22	.98	227	39.0	431
2021	774.	116	273	90.68	7.23	.87	-2.10	2.09	.65	.71	263	21.1	841
Aver-													
age	\$2434.	100	252	\$75.01	\$13.96	\$3.19	\$1.68	\$.93	\$.28	\$.29	360	20.0	712
High	4585.	123	326	118.38	47.15	5.16	5.30	.64	-.22	-.03	569	59.0	1194
Low	774.	69	200	43.12	-14.34	.38	-2.10	2.09	.65	.98	227	11.1	364

Find Your Weak Links

Using your figures from page 9, locate your standing with respect to the various measures of farm organization and management efficiency. The average for the 23 farms included in this summary are located between the two lines across the center of the page:

Oper. Lab. Earn.	Ind. of Crop Yield	Lbs. B.F. per Cow	Returns above feed				Expenses per			Prod. Work Units per er	Prod. Live Stock per 100-A	Total No Prod. Man Work Units
			Cow	Head of other Cat.	100 Lbs. of Pork	Hen	Farm Power	Gen. Mach.	Bldgs. Fen. and Eq.			
\$4585	123	326	\$118.38	\$47.15	\$5.18	\$5.30	\$.64	\$-.22	\$-.03	569	39.0	1194
4184	115	302	100.01	38.96	4.69	3.68	.73	.08	.09	510	25.0	1012
3834	112	292	95.01	33.96	4.39	3.28	.77	.12	.13	480	24.0	952
3484	109	282	90.01	28.96	4.09	2.88	.81	.16	.17	450	23.0	892
3134	106	272	85.01	23.96	3.79	2.48	.85	.20	.21	420	22.0	832
2784	103	262	80.01	18.96	3.49	2.08	.89	.24	.25	390	21.0	772
2434	100	252	75.01	13.96	3.19	1.68	.93	.28	.29	360	20.0	712
2184	97	244	70.01	10.96	2.79	1.28	1.03	.32	.37	340	19.0	662
1934	94	236	65.01	7.96	2.39	.88	1.13	.36	.45	320	18.0	612
1684	92	228	60.01	4.96	1.99	.48	1.23	.40	.53	300	17.0	562
1434	89	220	55.01	1.96	1.59	.08	1.33	.44	.61	280	16.0	512
1184	84	212	50.01	-2.94	1.19	-.32	1.43	.48	.69	260	15.0	462
774	69	200	43.12	-14.34	.38	-2.10	2.09	.65	.98	227	11.1	364

Prices Received for Products Sold - 1929

Farm No.	Butterfat per lb. sold	Eggs per dozen	Hogs per 100 pounds
2197	.51	.31	8.55
2161	.51	.28	9.42
2201	.53	.25	9.95
2103	.52	.33	9.48
2199	.50	.26	9.05
2191	.50	.23	9.94
2196	.51	.34	11.22
2082	.51	.31	9.42
2121	.50	.31	9.60
2102	.52	-	8.84
2031	.51	.26	8.70
2221	.51	.32	9.19
2132	.50	.29	8.82
2022	.50	.27	9.92
2062	.50	.26	9.62
2101	.50	.22	10.44
2194	.48	.25	9.27
2198	.49	.24	8.46
2011	.50	.27	9.22
2081	.52	.27	9.62
2051	.50	.41	9.58
2182	.50	.29	9.76
2021	.52	-	9.10
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Average	.51	.28	9.44
High	.53	.41	11.22
Low	.48	.22	8.46

Factors of Cost in Dairy Production - 1929 (per cow basis)

Farm No.	B.F. per cow	Feed per Cow - Lbs.								Silage	Total concen.	Total dry rough- age	Total digest nutri- per lb. B.F.	Nutri- tive ratio	% Cows fresh Set. to Dec. incl.	Per cent calves born
		Corn	Small grain	Mill feeds	Oil Meal	Tame hay	Wild hay	Alfalfa	Corn fodder							
2191	326	618	2493	41	-	-	276	827	2758	7998	3152	3861	17.3	1:8.7	70	137
2102	319	510	1594	126	72	-	-	2846	-	7116	2302	2846	17.7	1:6.1	67	114
2182	291	266	1535	1404	75	442	-	2039	204	8633	3280	2685	16.0	1:5.9	94	116
2201	289	110	3147	323	-	2223	696	-	-	12566	3590	2922	21.7	1:8.6	100	98
2022	284	217	2121	60	120	516	-	1892	2493	-	2518	4901	15.1	1:6.7	45	95
2197	276	1509	1622	692	4	1574	-	944	-	13376	3627	2518	24.0	1:6.7	83	118
2021	273	-	1769	507	-	581	-	2225	634	8773	2276	3540	18.3	1:6.5	36	132
2199	269	-	2843	-	-	-	-	3037	760	8656	2843	3797	20.4	1:6.6	69	121
2052	265	81	2415	300	-	1742	-	-	-	10067	2796	1742	17.7	1:6.9	92	116
2103	258	221	1932	-	-	-	-	1659	-	8690	2153	1659	15.1	1:8.0	61	122
2196	255	-	2258	-	103	147	-	2012	-	8440	2361	2159	16.7	1:6.5	76	103
2161	255	-	1932	546	15	1659	-	1170	-	6634	2493	2829	17.2	1:7.1	53	93
2221	245	201	1363	62	5	479	575	2203	-	7471	1631	3257	16.9	1:6.7	59	105
2198	236	305	2205	-	-	-	929	1300	619	1671	2510	2848	15.7	1:7.3	55	13
2194	230	-	3175	-	-	277	-	1385	1293	6187	3475	2955	22.2	1:7.3	50	111
2121	227	-	2078	165	77	-	-	2538	615	4231	2320	3153	17.6	1:5.8	68	119
2051	226	308	1097	329	55	659	-	879	549	5782	1789	2087	14.2	1:7.4	74	104
2031	225	94	2275	90	11	-	-	1402	673	8750	2470	2075	19.2	1:7.4	17	57
2081	220	-	1529	213	-	1477	475	1477	527	7595	1742	3956	20.6	1:7.0	20	53
2132	214	-	1560	-	50	-	-	2114	-	9329	1610	2114	18.0	1:6.7	79	87
2101	209	12	1641	-	-	-	-	2235	-	8455	1653	2235	18.2	1:6.7	45	107
2082	204	-	1341	-	-	86	-	2572	514	5315	1341	3172	17.1	1:6.2	9	99
2011	200	118	560	302	-	1054	-	1205	-	6928	980	2259	15.1	1:7.4	0	60
Average	252	199	1947	225	26	562	128	1655	506	7490	2397	2651	17.8	1:6.9	57	105

Feed Costs and Returns for Dairy Cows - 1929 (per cow basis)

Farm No.	E.F. per cow lbs.	Feed per cow				Feed cost per lb. R.F. (cents)	Value of Produce per cow					Derr. Net value of prod.	Returns above feed cost per cow	% voluntary sales	% heifers are of total cows	
		Concen.	Rough.	Pasture	Total cost		R.F. sales	Dairy prod. used in house	Milk to other live-stock	Apprec. Total						
2191	326	\$38.13	\$32.28	\$5.72	\$76.13	23	\$134.46	\$21.54	\$27.70	\$ 9.62	\$193.32	-	\$193.32	\$117.19	14	11
2102	319	29.18	35.29	5.86	70.33	22	154.06	9.84	17.33	7.48	188.71	-	188.71	118.38	24	25
2182	291	51.23	34.81	6.48	92.52	32	134.53	7.65	15.27	5.46	162.87	-	162.87	70.35	20	5
2201	289	51.04	37.78	4.64	93.46	32	141.13	5.08	17.63	10.79	174.63	-	174.63	81.17	114	11
2022	284	33.57	25.24	7.15	65.96	27	133.60	5.46	17.73	-	156.79	2.89	153.90	87.94	34	24
2197	276	55.64	39.97	5.65	101.26	37	127.60	5.20	27.42	7.98	168.20	-	168.20	66.94	16	11
2021	273	29.18	39.11	6.99	75.28	28	129.46	3.84	26.10	4.56	165.96	-	165.96	90.68	16	22
2199	269	35.64	43.12	5.44	84.20	31	121.78	8.56	29.30	-	159.64	.31	159.33	75.17	15	2
2062	265	39.62	30.88	5.66	76.16	29	120.37	6.30	24.83	3.35	154.85	-	154.85	78.69	10	1
2103	258	28.29	27.81	5.94	62.04	24	123.92	6.71	23.07	2.46	156.16	-	156.16	94.12	20	4
2196	255	30.99	33.05	5.37	69.41	27	123.69	4.53	18.51	7.61	154.34	-	154.34	84.93	10	12
2161	255	32.73	30.39	5.38	68.50	27	123.72	3.93	14.59	5.62	147.86	-	147.86	79.36	15	9
2221	245	20.56	36.64	6.37	63.57	26	116.94	4.98	21.10	-	143.02	5.24	137.78	74.21	14	4
2198	236	29.76	19.09	7.47	56.32	24	99.05	10.52	22.29	7.43	139.29	-	139.29	82.97	-	26
2194	230	48.23	28.39	7.08	83.70	36	95.26	8.77	19.08	3.71	126.82	-	126.82	43.12	37	6
2121	227	30.57	29.73	7.42	67.72	30	106.83	3.83	21.92	.59	133.17	-	133.17	65.45	-	31
2051	226	24.50	21.25	7.29	53.04	23	100.79	6.67	17.33	-	124.79	5.51	119.28	66.24	16	1
2031	225	30.92	30.23	6.31	67.46	30	100.35	8.46	22.19	.57	131.57	-	131.57	64.11	22	-
2061	220	22.46	39.32	5.94	67.72	31	105.69	3.89	16.42	-	126.00	6.01	119.99	52.27	-	15
2132	214	20.07	34.08	5.22	59.37	28	98.40	7.23	18.81	-	124.44	3.52	120.92	61.55	44	5
2101	209	23.95	33.73	6.77	64.45	31	94.39	8.66	18.23	.34	121.62	-	121.62	57.17	10	17
2082	204	16.23	31.76	5.91	53.90	26	92.33	9.28	15.58	-	117.19	14.20	102.99	49.09	17	7
2011	200	13.49	28.01	6.58	48.08	24	88.35	8.10	13.44	2.27	112.16	-	112.16	64.08	-	8
Average	252	32.00	32.26	6.20	70.46	28	115.95	7.35	20.54	3.47	147.11	1.64	145.47	75.01	20	11

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Feed Costs and Returns for Young Cattle - 1929

Farm No.	Feeds Used per Head, Lbs.					Feed Costs per Head				Total	Net value of product per head	Net value of Prod. above feed cost per head	% death Loss
	Concen.	Hay & Fodder	Silage	Whole Milk	Skim-Milk	Concen.	Rough	Milk	Pasture				
2191	2468	423	2746	314	2509	\$29.69	\$ 8.24	\$13.51	\$ 1.32	\$52.76	\$99.91	\$47.15	11
2182	7	1080	2335	136	2100	.12	12.17	8.70	1.16	22.11	65.97	43.86	53
2197	1257	800	2971	300	3163	17.05	9.54	14.00	1.60	42.19	78.89	36.70	14
2196	364	694	1652	162	1234	4.31	8.68	6.37	2.16	21.52	52.26	30.74	15
2161	203	872	1648	108	1917	2.47	8.53	7.27	1.86	20.13	47.06	26.93	5
2062	221	549	2015	293	918	2.68	7.42	8.22	2.46	20.78	42.87	22.09	-
2031	735	997	2658	226	1807	8.45	11.55	9.35	.95	30.30	50.90	20.60	-
2082	229	1980	1680	235	1733	2.68	15.51	9.74	2.11	30.04	46.27	16.23	24
2132	278	379	1769	152	782	3.17	5.56	5.03	2.43	16.19	31.16	14.97	6
2221	105	861	-	146	1404	1.16	4.93	6.64	1.74	14.47	29.16	14.69	20
2199	886	1186	3122	199	1703	11.16	13.78	9.60	2.02	36.56	50.29	13.73	11
2022	515	2983	-	259	2211	6.32	14.98	10.79	1.97	34.06	47.28	13.22	26
2121	309	1691	376	86	1120	3.62	9.04	4.77	3.09	20.52	33.24	12.72	9
2196	359	1390	329	198	2013	4.26	7.50	9.77	4.04	25.57	36.56	10.99	-
2021	525	2176	3649	278	2293	6.70	20.14	11.51	1.52	39.87	47.10	7.27	7
2201	753	1004	1545	215	2966	4.72	7.78	11.79	2.66	26.95	34.12	7.17	-
2102	893	1556	2445	131	1575	11.14	16.22	7.50	1.80	36.66	40.44	3.78	56
2081	242	1305	2611	266	1464	2.84	12.60	9.05	2.10	26.59	28.70	2.11	-
2101	384	1141	2281	114	2166	5.33	11.36	7.73	1.42	25.84	27.52	1.68	10
2011	266	405	2967	167	1392	3.00	8.36	7.33	2.54	21.23	20.29	-.94	13
2194	1113	1174	2768	378	822	15.03	11.28	9.72	3.43	39.46	34.72	-4.74	17
2103	980	485	1778	156	2092	11.20	6.59	9.20	.78	27.77	22.27	-5.50	36
2051	550	573	1966	482	1773	6.56	6.39	15.51	2.69	31.15	16.81	-14.34	25
Average	576	1118	1979	217	1789	7.12	10.35	9.27	2.08	28.82	42.78	13.96	16

Factors of Cost in Pork Production - 1929

Farm No.	Lbs. of Feed per 100 Lbs. of Pork						Value of Feed per 100 Lbs.				Returns above feed cost per 100 lbs. pork	Total No. of litters	Average No. of pigs per litter
	Corn	Small grain	Mill feeds	Total grain	Tank.	Skim-milk	Grain & mill feeds	Tank. & Skim-milk	Pasture	Total			
2062	194	105	-	299	-	419	\$3.56	\$1.05	\$.18	\$4.79	\$5.18	9	6.9
2103	130	104	-	234	-	611	2.95	1.53	.14	4.62	5.07	16	6.8
2199	245	31	-	276	-	171	3.30	.43	.15	3.88	5.02	18	8.4
2191	275	171	3	449	-	234	5.43	.59	-	6.02	4.89	3	6.4
2196	191	157	9	357	1	695	4.40	1.76	.19	6.35	4.73	13	5.2
2011	207	106	4	317	-	306	3.95	.77	.21	4.93	4.50	12	7.7
2022	366	22	-	388	4	220	4.87	.71	.27	5.81	4.41	15	8.1
2201	373	35	15	423	12	18	5.48	.51	.21	6.20	4.22	26	6.5
2082	330	68	-	398	-	305	4.81	.76	.13	5.70	4.14	14	6.5
2182	71	250	-	321	-	1114	3.40	2.78	.22	6.40	3.88	2	5.0
2121	253	139	-	392	-	361	4.35	.90	.25	5.80	3.82	37	6.5
2161	285	-	-	285	-	1152	3.42	2.88	.26	6.56	3.78	4	7.0
2221	315	178	-	453	1	434	5.54	1.12	.28	6.94	2.93	20	4.7
2031	353	85	-	438	-	301	5.12	.95	.11	6.18	2.65	14	7.6
2194	481	40	-	521	-	247	6.42	.62	.37	7.41	2.39	15	6.4
2101	339	265	-	604	-	303	7.36	.76	.17	8.29	2.37	19	6.8
2197	250	166	5	421	4	300	5.45	.93	.20	6.58	2.19	15	6.7
2132	318	130	-	448	-	689	5.35	1.72	.25	7.32	1.90	8	4.8
2081	392	151	11	554	-	445	6.68	1.11	.24	8.22	1.74	8	6.2
2102	442	29	-	471	1	545	5.81	1.39	.13	7.33	1.64	13	3.2
2021	355	226	8	589	2	262	7.50	.75	.27	8.52	.87	17	6.7
2198	460	119	3	582	1	144	7.07	.49	.42	7.98	.76	14	5.9
2051	387	198	3	584	-	873	7.04	2.18	.25	9.47	.38	10	7.7
Average	305	119	3	426	1	445	5.21	1.16	.21	6.58	3.19	14	6.4

Feed Costs and Returns for Poultry - 1929

Farm No.	Total Feed (lbs.) per 100 Hens		Cost of feed per 100 Pens			Value per 100 Hens			Returns above feed cost per 100 Hens	Eggs laid per Hen
	Concen.	Skim- milk	Concen.	Skim- milk	Total	Eggs	Poultry	Total		
2051	16795	17191	\$205.03	\$42.97	\$248.00	\$340.87	\$436.63	\$777.50	\$529.50	118
2198	13645	6627	174.17	16.57	190.74	128.47	369.69	498.16	307.42	62
2196	6701	-	162.16	-	162.16	335.20	106.52	442.72	280.56	120
2132	4162	4664	63.87	11.66	75.53	211.03	126.45	337.48	261.95	87
2022	9803	106	170.42	.26	170.68	375.20	53.45	428.65	257.97	163
2103	13528	7676	190.06	19.18	209.24	364.39	101.17	465.56	256.32	132
2082	7802	4738	102.78	11.84	114.62	257.25	85.03	342.28	227.66	99
2031	9714	3195	146.00	7.99	153.99	255.81	123.18	378.99	225.00	117
2191	3783	5842	51.43	14.60	66.03	76.38	205.02	281.40	215.37	36
2062	6759	2717	123.24	6.79	130.03	337.02	-	337.02	206.99	153
2161	11478	6643	193.71	16.60	209.91	331.66	71.65	403.31	193.40	141
2011	13742	8930	183.40	22.33	205.73	298.58	74.45	373.03	167.30	129
2201	12539	-	193.02	-	193.02	128.11	201.21	329.32	136.30	61
2197	18311	10000	246.31	25.01	273.32	195.90	206.30	402.20	128.88	83
2081	5418	2159	124.94	5.40	130.34	222.94	17.71	240.65	110.31	99
2199	4303	1875	53.82	4.68	58.50	113.38	50.21	163.59	105.09	51
2221	7983	3964	117.04	9.91	126.95	120.65	95.04	215.69	88.74	46
2182	14560	10876	295.07	27.17	322.24	297.44	112.16	409.60	87.36	125
2121	8435	15132	100.10	37.83	137.93	160.61	63.00	223.61	85.66	62
2194	6435	3746	77.80	32.15	109.95	130.40	52.14	182.54	72.59	65
2101	8667	3403	113.83	8.51	122.34	85.79	-11.20	74.59	-47.75	38
2021	17630	2903	255.16	7.26	262.42	60.03	- 7.63	52.40	-210.02	33
Aver- age	10109	5563	152.05	14.94	166.99	219.46	115.10	334.56	167.57	92

Feed Cost for Horses - 1929

Farm No.	% Colts are of Horses	Feed per Horse (lbs.)			Feed Costs per Horse				Cron Acres per Horse	
		Grain	Tame Hay & Alfalfa	Wild Hay & Fodder	Grain	Rough.	Pasture	Total	With Tractor	Without Tractor
2191	-	992	-	2000	\$12.61	\$ 8.60	\$ 3.25	\$24.46	-	16
2051	-	1350	2000	667	15.96	10.25	3.81	30.02	-	18
2182	-	-	3000	1750	-	31.25	5.70	36.95	14	-
2062	3	1944	1178	884	24.02	10.46	4.38	38.86	-	15
2201	26	1944	2293	1529	23.15	14.91	5.11	43.17	38	-
2081	16	1824	-	4853	27.31	16.90	3.14	43.35	20	-
2011	-	2419	1334	1000	30.83	11.00	3.54	45.37	-	14
2022	-	2961	676	676	36.51	5.74	3.22	45.47	-	20
2198	-	1920	-	3625	23.68	12.88	9.58	46.14	-	30
2197	-	2513	2000	1500	32.79	13.50	4.02	50.31	25	-
2101	-	2943	857	-	40.10	6.86	4.79	51.75	25	-
2132	-	3530	-	2500	42.55	7.50	2.50	52.55	-	27
2082	6	2665	1795	2308	31.80	19.49	2.80	54.09	21	-
2196	-	3720	1250	-	45.93	10.00	-	55.93	30	-
2161	8	3145	3619	-	36.23	18.75	4.10	59.08	22	-
2199	-	4300	1429	1429	53.22	10.93	3.75	67.90	-	25
2031	-	3701	1903	2196	44.90	22.25	4.48	71.63	-	21
2021	16	2405	3198	5330	30.47	36.67	5.72	72.86	20	-
2221	7	4637	-	4326	60.69	15.76	1.72	78.17	36	-
2121	14	4076	1143	3715	50.82	22.28	5.63	78.73	35	-
2103	25	4294	4750	-	52.99	28.00	3.42	84.41	23	-
2102	10	4786	762	6477	57.09	28.38	3.90	89.37	33	-
2194	-	7180	3000	3500	98.20	25.50	2.70	126.40	39	-
Average	6	3011	1573	2186	37.73	16.86	3.98	58.57	27	21