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Report 16

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

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A Preliminary Report
of
Data Secured in 1926
on the

FARM ACCOUNTING ROUTE

at

ASKOV - PINE COUNTY - MINNESOTA

By

A.T. Hoverstad - G.A. Sallee
F.H. Tomlinson, Routeman

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Section of Farm Management
University Farm
St. Paul, Minn.
June 1927

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FACTS ABOUT THE ORGANIZATION OF THE FARMS

	<u>25 Farms</u>		
	Average	Lowest	Highest
Acres in Tame Hay	12.4	0.1	40.4
Acres in Wild Hay	8.4	0.0	43.7
Acres in Other hay	2.5	0.0	10.1
Acres in Corn	8.4	1.0	19.1
Acres in Small Grain	14.3	5.5	34.4
Acres in Rutabagas	2.7	0.0	11.0
Acres in Potatoes	5.5	1.2	13.2
Acres in Miscellaneous Crops	.4	0.0	2.5
 Total Crop Acres per Farm	 54.6	 12.0	 124.9
Acres in Pasture	42.3	18.1	112.1
Acres in Farmstead	2.3	0.7	5.0
Acres in lanes, headland, waste and road	4.5	1.0	13.8
Acres in brush (not pastured)	11.5	0.0	121.6
 Total Acres per Farm	 115.2	 46.0	 217.4
 Total hours of man labor per farm	 6205	 3503	 12,514
Hours of hired labor per farm	364	0	5,428½
Hours of unpaid family labor per farm	2960	191	9,116
Hours of proprietor labor per farm	2881	121	3,685
Hours of proprietor labor per week day	9.2	6.3	11.0
Hours of proprietor labor per Sunday	4.5	2.8	6.3
 Average number of work horses per farm	 3.6	 2.0	 5.9
Number of crop acres per horse	15.2	6.0	30.2
Hours of labor per horse per year	769	463	1003
Cost of horse labor per hour	11.1	7.9	18.5
 Number of cows milked per farm	 12	 6	 23
Pounds of butterfat sold annually per farm	2665	1346	3934

FARM BUSINESS FINANCIAL STATEMENT

Average Per Farm - Askov 1926

<u>INVESTMENT</u>	January 1, 1926	December 31, 1926
Land	\$6389	\$6506
Building	4691	4564
Work stock	294	308
Productive livestock	1208	1151
Machinery and equipment	755	752
Auto	225	273
Feeds and supplies	<u>1009</u>	<u>961</u>
Total	\$14571	\$14520
Decrease in investment		51

CASH FARM RECEIPTS

Dairy products	\$1365
Cattle	324
Swine	223
Poultry	221
Horses	23
Crops	791
Outside labor	84
Miscellaneous	<u>76</u>
	\$3107

CASH FARM EXPENSES

Labor	\$51
Feed	527
Crop	123
Livestock purchases	113
Other livestock expense	29
Real estate	147
Machinery & equipment	136
Auto	239
Gas, oils, etc,	78
Taxes	193
Interest	286
Insurance	20
Rent	7
Miscellaneous	<u>29</u>

\$1978

Excess cash receipts over expenses	\$1129
Decrease of inventory	<u>51</u>
Farm income	1078

Estimated house rent 12% house value	\$260	
Value of ^{farm} products used in house (except fruits & vegetables)	<u>213</u>	473

Earnings of family and unpaid capital \$1551

Interest on investment at 6%	\$873	
Minus interest paid in cash	<u>286</u>	<u>587</u>

Family earnings \$964

HOUSEHOLD AND PERSONAL FINANCIAL STATEMENTS

(Average per farm of 24 farms)
(Average size of family 4.4 adult equivalents)

<u>HOUSEHOLD</u>		<u>PERSONAL</u>	
Cash receipts	\$15.15	Cash receipts	\$103.37
Cash expenses		Cash expenses	
Food	394.81	Clothing & dry goods	141.05
Fuel	27.68	Doctor, dentist & medicine	82.08
Furnishings	64.07	Railroad and travel	12.64
General supplies	4.73	School	.15
Hired help	<u>16.24</u>	Reading matter, etc.	4.42
Total household cash expenses	<u>507.53</u>	Church & benevolence	26.37
Net household cash expense	492.38	Clubs & organizations	3.99
		Amusements	4.63
		Life insurance	4.53
		Miscellaneous	40.09
		Given to members of family	70.25
		Unspecified	<u>5.74</u>
		Total cash expenses	\$395.94

FARM PRODUCTS USED IN HOUSE:

	Amount	Value
Cream	457 lbs.	\$38.86
Whole milk	1442	31.11
Skimmilk	2513	6.67
Butter	14 $\frac{1}{2}$	6.30
Eggs	119 doz.	30.99
Poultry	78 lbs.	12.22
Beef	404	20.31
Perk	290	32.32
Mutton	3	.37
Potatoes	29 $\frac{1}{2}$	<u>33.75</u>

Total value of farm products used in house (except fruit and vegetables estimated to be worth \$36.74 per farm) \$212.70

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SUMMARY OF STATEMENT OF FINANCES

<u>CASH RECEIPTS (All sources)</u>		<u>CASH EXPENSES (Entire outgo)</u>	
Farm (net receipts)	\$1129	Household	\$508
Household	15	Personal	396
Personal	103	Old accounts paid	39
Old accounts	20	Mortgages & notes paid	125
Money borrowed	<u>68</u>		
Total	\$1335	Total	\$1068
Cash Surplus			\$267

COSTS AND RETURNS PER DAIRY COW

(Average of 262 cows on 23 farms)

<u>COSTS</u>	Amount	Value	
Feed			
Dry roughage, lbs.	3207	\$20.69	
Succulent feed, lbs.	6951	17.47	
Grain, lbs.	929	15.29	
Commercial feed, lbs.	450	6.68	
Oilmeal, lbs.	194	5.20	
Pasture, days	166	<u>5.55</u>	
Total feed cost			\$70.83
Labor			
Man hours	186 $\frac{1}{4}$	\$37.22	
Horse hours	6 $\frac{3}{4}$	<u>.82</u>	
Total labor cost			38.04
Other Costs			
Shelter		\$10.73	
Equipment		2.66	
Interest		3.86	
Cash		<u>.77</u>	
Total other costs			<u>18.02</u>
Total all costs			\$126.94
<u>CREDITS:</u>			
Skimmilk, lbs.	5924	\$14.81	
Manure, tons	6.9	10.42	
Appreciation		<u>1.53</u>	
Total all credits			<u>26.76</u>
<u>Net Cost of Butterfat</u>			\$100.18

	Average	Lowest	Highest
Pounds of butterfat per cow	250	143	344
Feed cost per pound of butterfat, ¢	28.3	24.4	38.1
Net cost per pound of butterfat, ¢	40.0	27.7	62.4
Average selling price per pound, ¢	48.8	46.4	50.4
Return for man labor, \$	59.22	16.11	104.62
Return per hour man labor, ¢	31.8	9.0	69.1
Return over cost of feed, \$	79.48	33.54	127.11
Net return, \$	22.00	-19.61	71.94
Nutritive ratio	1:7.3	1:6 $\frac{1}{3}$	1:9.8

COSTS AND RETURNS FROM YOUNG DAIRY CATTLE

(Average per farm of 23 farms)

COSTS

Feed	\$298.03
Man labor 297 $\frac{3}{4}$ hrs.	59.53
Horse labor	.57
Shelter	50.70
Equipment	.08
Interest	14.22
Animals purchased	25.11
Cash expenses	5.91
Decrease inventory	<u>8.04</u>

Total costs

\$462.19

CREDITS

Sales of livestock	\$147.33
Products used in house	16.77
Credit for heifers freshened	107.39
Miscellaneous cash	4.66
Manure	<u>50.80</u>

Total credits

\$326.95

Net Loss

\$135.24

COSTS AND RETURNS FROM ALL DAIRY CATTLE

(Average per farm of 23 farms)

COSTS

Opening inventory	\$975.11
Purchases	25.98
Feed	1106.28
Man labor	484.05
Horse labor	9.91
Shelter	173.00
Equipment	30.37
Interest	58.28
Cash	<u>14.68</u>

Total costs

\$2877.66

CREDITS

Closing inventory	\$942.82
Sales of cattle	295.15
Meat products used in house	19.05
Sales of dairy products	1300.82
Dairy products used in house	78.17
Dairy products used for feed	182.94
Other cash receipts	4.66
Manure	<u>169.60</u>

Total credits

\$2993.11

Net Gain

\$115.45

Return per hour of man labor

24.8¢

COST OF PRODUCING PORK PER 100 POUNDS

(Average cost on 24 farms)

<u>COSTS</u>	Amount	Value	
Feed			
Grain	176	\$2.89	
Commercial feeds	64	.96	
Potatoes and rutabagas	147	.33	
Skim milk	1619	4.04	
Pasture		<u>.20</u>	
Total feed cost			\$8.42
Labor			
Men hours	10 $\frac{1}{2}$	\$2.04	
Horse hours	$\frac{1}{2}$	<u>.07</u>	
Total labor cost			2.11
Other Costs			
Shelter		\$.66	
Equipment		.01	
Interest		.33	
Cash		<u>.07</u>	
Total other costs			<u>1.07</u>
Total all costs			\$11.60
<u>CREDITS</u>			
Manure		\$.28	
Cash		<u>.03</u>	
Total all credits			<u>.31</u>
Net cost of 100 lbs. of pork			\$11.29
Average selling price			11.69

	Average	Lowest	Highest
Cost per 100 lbs., \$	11.29	6.97	24.52
Amount received per 100 lbs. skim milk, ¢	27.2	None	63.7
Fork production per farm, lbs;	2022	246	5267

COST PER ACRE OF PRODUCING RUTABAGAS

(Average of 68 acres)

	Total	Range			
Man hours	101 $\frac{3}{4}$	68 $\frac{1}{2}$	-	180 $\frac{7}{8}$	
Horse hours	60 $\frac{1}{4}$	8 $\frac{1}{2}$	-	103	
Tractor hours	5 $\frac{3}{4}$	0	-	5 $\frac{3}{4}$	
Labor cost	\$32.40	\$24.09	-	\$55.15	
Seed	.66	.42	-	1.65	
Manure and fertilizer	12.34	4.46	-	26.63	
Machine	1.14	1.09	-	1.15	
Rock picking	.37	.00	-	1.70	
Miscellaneous	2.13	.00	-	16.36	
Land charge	5.00	5.00	-	5.00	
Total cost	<u>\$54.04</u>	\$35.94	-	\$77.61	
Credit for culls	2.10	.00	-	11.70	
Net cost	<u>\$51.94</u>	\$32.38	-	\$77.61	
Yield, tons	10.4	5.1	-	18.8	
Cost per ton	\$5.01	\$2.21	-	\$8.41	
Average price received for rutabagas sold				\$12.94	
Price per ton	\$4	\$8	\$12	\$16	\$20
Return per man hour	15¢	56¢	97¢	138¢	178¢

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COST PER ACRE OF PRODUCING POTATOES

(Average of 139 acres)

	Total	Range				
Man hours	77	45 $\frac{3}{4}$	-	131 $\frac{1}{2}$		
Horse hours	65 $\frac{3}{4}$	25 $\frac{3}{4}$	-	111		
Tractor hours	1 $\frac{1}{2}$	0	-	18		
Labor cost	\$27.06	\$16.90	-	\$41.66		
Seed	17.50	5.07	-	30.00		
Spray	.64	.00	-	1.12		
Manure and fertilizer	13.00	6.25	-	27.68		
Machinery	2.30	.90	-	3.00		
Rock picking	1.20	.00	-	8.75		
Miscellaneous	.29	.00	-	1.85		
Land charge	5.00	5.00	-	5.00		
Total cost	<u>\$66.99</u>	\$43.87	-	\$98.12		
Credit for culls	1.26	.00	-	5.79		
Net cost	<u>\$65.73</u>	\$42.95	-	\$97.77		
Yield, bushels	126	.20	-	1.95		
Cost per bushel	52¢	33¢	-	2.60¢		
Average price received for potatoes sold				\$.98		
Price per bushel	25¢	50¢	75¢	100¢	150¢	200¢
Return per man hour	None	21¢	62¢	103¢	185¢	267¢

COST PER ACRE OF PRODUCING SMALL GRAIN

(Average of 199 acres)

	Total	Range			
Man hours	12 $\frac{1}{2}$	7 $\frac{3}{4}$	-	19 $\frac{3}{4}$	
Horse hours	17 $\frac{1}{2}$	8 $\frac{1}{4}$	-	30 $\frac{1}{4}$	
Tractor hours	$\frac{1}{2}$	0	-	5	
Labor cost	\$5.35	\$4.00	-	\$9.68	
Seed	1.83	1.49	-	2.56	
Twine	.30	.17	-	.40	
Threshing	1.37	.00	-	2.01	
Manure and fertilizer	10.19	1.02	-	16.58	
Machine	.97	.76	-	1.00	
Rock picking	.87	.00	-	2.13	
Miscellaneous	.08	.00	-	.73	
Land	5.00	5.00	-	5.00	
Total cost	\$25.96	\$17.19	-	\$33.64	
Credit for hay	.52	.00	-	3.30	
Net cost	\$25.44	\$17.10	-	\$33.64	
Yield - 32 lb. bushels	39 $\frac{3}{4}$	25 $\frac{1}{2}$	-	56	
Cost per bushel	64¢	47¢	-	92¢	
Price per bushel	35¢	40¢	45¢	50¢	55¢
Return per man hour	None	None	None	None	None

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COST PER ACRE OF PRODUCING SILAGE

(Average of 176 acres)

	Total	Range			
Man hours	41 $\frac{1}{2}$	27 $\frac{1}{2}$	-	68 $\frac{1}{2}$	
Horse hours	57 $\frac{1}{2}$	30 $\frac{1}{2}$	-	82 $\frac{1}{2}$	
Tractor hours	$\frac{1}{2}$	0	-	6	
Labor cost	\$16.77	\$10.65	-	23.14	
Seed	1.43	.88	-	2.26	
Twine	.38	.00	-	1.51	
Filling	1.57	.00	-	5.33	
Manure and fertilizer	15.13	6.84	-	24.28	
Machine	2.40	1.15	-	5.00	
Rock picking	.84	.00	-	6.18	
Miscellaneous	.49	.00	-	4.85	
Land	5.00	5.00	-	5.00	
Total cost	\$44.01	33.92	-	66.48	
Fodder credit	2.53	.00	-	15.29	
Net cost	\$41.48	33.03	-	66.48	
Yield, tons	5.5	1.4	-	8.8	
Cost per ton	\$7.57	4.91	-	24.71	
Price per ton	\$4.50	\$5.00	\$5.50	\$6.00	\$6.50
Return per man hour	None	None	None	4¢	11¢

COST PER ACRE OF PRODUCING TAME HAY

(Average of 388 acres)

	Total	Range			
Man hours	4 $\frac{1}{2}$	2 $\frac{1}{2}$	-	8 $\frac{1}{2}$	
Horse hours	6 $\frac{3}{4}$	4	-	13 $\frac{1}{4}$	
Labor cost	\$1.83	\$1.01	-	\$3.54	
Seed	2.25	2.25	-	2.25	
Threshing	.02	.00	-	.36	
Manure and fertilizer	4.02	.00	-	10.45	
Machine	.90	.90	-	.90	
Rock picking	.02	.00	-	.23	
Land	5.00	5.00	-	5.00	
Total cost	\$14.04	\$9.35	-	\$20.36	
Pasture and seed credit	.53	.00	-	4.53	
Net cost	\$13.51	\$9.35	-	\$20.20	
Yield - tons	.5	1.0	-	.2	
Cost per ton	\$26.32	\$16.82	-	\$66.54	
Price per ton	\$12.00	\$14.00	\$16.00	\$18.00	\$20.00
Return per man hour	None	None	None	None	None

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COST PER ACRE OF PRODUCING ~~TAME~~ WILD HAY

(Average of 160 acres)

	Total	Range			
Man hours	4 $\frac{3}{4}$	2 $\frac{3}{4}$	-	10 $\frac{3}{4}$	
Horse hours	6 $\frac{3}{4}$	4 $\frac{3}{4}$	-	11	
Laborcost	\$1.92	1.33	-	3.82	
Machine	.90	.90	-	.90	
Land	2.50	2.50	-	2.50	
Total cost	5.32	4.73	-	7.22	
Pasture credit	.34	.00	-	1.70	
Net cost	4.98	3.33	-	7.22	
Yield - tons	.41	.1	-	1.3	
Cost per ton	\$12.20	4.28	-	61.05	
Price per ton	\$6.00	\$8.00	\$10.00	\$12.00	\$14.00
Return per man hour	None	None	7¢	23¢	41¢