

**2011 Michigan Upper Peninsula Dairy
Business Analysis Summary**

Eric Wittenberg
And
Christopher Wolf

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Department of Agricultural, Food, and
Resource Economics
MICHIGAN STATE UNIVERSITY
East Lansing, Michigan 48824

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By

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Average of 14 Dairy Farms

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¹ Co-workers in the TelFarm project were: R. Betz, L. Borton, C. Talley, W. Schauer, D. Stein, and V. Varner with the assistance of Michigan State University Extension Agents. Greenstone Farm Credit Services co-workers were Kelly Tobin, Steve Eshelman, Janice Raymond, Anne Gerke, Sonya Pentecost, and Lynette Wood. Farm Credit Services of Wisconsin co-worker was Steve Zimmerman.

Executive Summary

This report summarizes the financial and production records of 14 dairy farms across the Upper Peninsula (UP) of Michigan. To be included, the farms must have produced at least 50 percent of gross cash farm income from milk and dairy animal sales. The records came from Michigan State University's TelFarm project and Farm Credit Service system in Michigan. Farm records checked for accuracy. While considerable variation in the data exists, average values are reported in the summary tables and discussion that follows.

In 2011, the average UP dairy farm in the business analysis had 156 cows producing an average of 19,878 pounds of milk per cow (Table 1). Milk price received averaged \$20.51/cwt. The total average acres owned were 495 and the average cropped acres were 781.

Table 1. Average Michigan UP Dairy Farm Characteristics, 2007-2011

	2007	2008	2009	2010	2011
Average number of cows	150	153	164	155	156
Milk sold per cow (pounds)	18,240	17,897	19,454	19,623	19,878
Average price of milk sold (\$/cwt)	19.05	19.42	13.26	16.67	20.51
Total acres owned	676	671	708	778	495
Total crop acres	786	783	843	913	781
Number of farms	24	23	18	16	14

Net farm income is the return to operator unpaid management, labor and capital invested. Net farm income in 2011 averaged a \$123,014 (Table 2). The median was \$77,943 and the standard deviation was \$216,402 across the 14 dairy farms.

Table 2. Average Michigan UP Dairy Farm Income Statement, 2007-2011

	2007	2008	2009	2010	2011
	(\$)	(\$)	(\$)	(\$)	(\$)
Gross cash farm income	673,978	701,117	609,927	655,469	826,522
- Total cash expense	<u>536,890</u>	<u>538,514</u>	<u>537,808</u>	<u>536,460</u>	<u>638,964</u>
= Net cash farm income	137,088	162,602	72,119	119,009	187,558
+ Inventory change*	12,378	17,513	-66,354	34,914	-2,200
+ Depreciation and capital adjustments*	<u>-65,476</u>	<u>-85,333</u>	<u>-60,085</u>	<u>-66,128</u>	<u>-62,344</u>
= Net farm income	83,990	94,783	-54,320	87,795	123,014

*Changes calculated as ending value minus beginning value.

Gross cash farm income averaged \$826,522 in 2011. The largest component of these revenues was milk sales, which averaged \$651,219. The second largest revenue was cull breeding livestock at \$53,724 and third was insurance income at \$42,238. Average total cash expenses were \$638,964 and average net cash farm income was \$187,558. Inventory changes were a negative \$2,200, on average farms inventories declined, while depreciation and capital adjustments averaged \$62,344. The net farm income value is the return to operator unpaid management, labor and capital invested averaged \$123,014 in 2011, the highest average in the last five years (Table 2).

To put the profit values in perspective, we calculate profitability ratios. Rate of return on assets (ROA) is the farm operating profit (equal to net farm income plus interest expense less value of operator labor and management) divided by average total farm asset value (valued at current market value). Rate of return on assets is a measure of how much profit the farm business assets generated. The average 2011 dairy farm ROA (Market) was a 7.2 percent and return on equity was 8.3 percent (Table 3). Operating profit margin is the operating profit (as defined in ROA above) divided by gross revenues. Operating profit margin measures the dollars of profit generated per dollar of revenue. In 2011, Michigan’s UP dairy farms generated 22.1 cents of profit per dollar of revenue. Asset turnover is a measure of efficiency defined as the gross farm revenues divided by average asset value. Asset turnover measures the efficiency with which farm assets generate revenue, an averaged 32.7 percent.

Table 3. Average Michigan UP Dairy Farm Profitability Indicators, 2007-2011

	2007	2008	2009	2010	2011
	(%)	(%)	(%)	(%)	(%)
Rate of return on assets*	4.7	6.1	-0.8	4.3	7.2
Rate of return on equity	4.3	6.2	-2.8	4.2	8.3
Operating profit margin	12.0	23.2	-4.5	18.1	22.1
Asset turnover rate*	27.7	26.1	18.4	23.9	32.7

* Assets valued at market value (rather than cost).

Per Unit Income and Expenses

Table 4 displays average income and expenses items per hundredweight (cwt) of milk and per cow across 14 UP dairy farms. Both income and expenses were adjusted to an accrual basis where detailed financial information was provided. Average, accrual adjusted income and expenses per cropped acre are also included.

Income items related to the dairy herd are included in the first section. Government payments include all farm government payments—not just those related to the dairy herd. It was not possible to separate crop payments from dairy payments. *This table should not be interpreted as an estimate of the true cost of producing milk.* Income related to the milking herd and some cash crop sales are reported in Table 4 and 5. Also, unpaid factors, including labor, management and capital, are not accounted for in the expense items. In addition, the allocation of resources amongst farm enterprises is not accurately reflected leaving the milking herd as the residual claimant on all expenses (especially labor costs).

The largest expense was purchased feed at \$5.94 cwt. and hired labor was the second largest at \$2.67/cwt and family living was third at \$2.34/cwt. Repairs, Fuel and Oil, Interest, Depreciation, Leases, and milk marketing and trucking combined were also significant expenses in 2011.

The bottom of Tables 4 presents crop related expenses divided by the total cropped acres. To accurately calculate a crop cost of production requires labor and management (among other) expenses that were not separated out in the financial records.

Table 4. Average income and expenses across all Upper Peninsula farms*, 2011

Income Items:	Per cwt.	Per Cow
Milk	\$20.51	\$4,069.50
Cull Cows and Calves	\$1.77	\$378.60
Dairy Steers	\$1.22	\$255.65
Dairy Heifers	\$1.84	\$469.34
Government Payments	\$0.89	\$173.97
Patronage Dividends, cash	\$0.36	\$48.32
Crop Sales	\$1.47	\$211.07
Other Cash Income	\$1.79	\$367.32
Expense Items:	Per cwt.	Per Cow
Purchased Feeds	\$5.94	\$1199.08
Breeding Fees	\$ 0.27	\$54.39
Veterinary	\$0.44	\$90.08
Livestock Supplies	\$0.88	\$163.54
DHIA	N/A	N/A
Milk & Livestock Mkt. & Trucking	\$0.91	\$177.63
Interest	\$0.90	\$169.48
Fuel and Oil	\$1.62	\$307.76
Repairs	\$1.21	\$239.88
Custom Hire	\$0.44	\$81.45
Hired Labor	\$2.67	\$538.38
Leases	\$1.17	\$207.68
Real Estate Taxes	\$0.46	\$87.67
Farm Insurance	\$0.51	\$101.69
Utilities	\$0.63	\$121.30
Dues, Professional Fees	\$0.25	\$50.41
Miscellaneous	\$0.45	\$81.44
Machinery Depreciation	\$1.97	\$366.10
Building Depreciation	\$0.52	\$73.87
Family Living	\$2.34	\$447.73
Expense Items per Cropped Acre:	Per Acre	
Seed	\$34.07	
Fertilizer	\$54.85	
Crop Chemicals	\$13.91	
Crop Insurance	\$0.77	
Crop Miscellaneous	N/A	
Land Rent	\$25.14	

All income and expense items averaged across all 14 farms whether they had this income or expense item or not. Other cash income includes custom work, insurance claims, and miscellaneous income.

Table 5

Crop Production and Marketing Summary

2011 MI UP Dairy

(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	High 25%
Dairy		
Number of farms	14	5
Average number of cows	156	113
Milk production per cows lbs.,	19,878	22,548
Average milk price per cwt.,	\$20.51	\$20.73
Acreage Summary		
Total acres owned	495	484
Total crop acres	781	651
Crop acres owned	382	378
Crop acres cash rented	399	273
Crop acres share rented	-	-
Total pasture acres	-	-
Percent crop acres owned	49 %	58 %

Table 6

Farm Income Statement

2011 MI UP Dairy

(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	High 25%
Number of farms	14	5
Cash Farm Income		
Corn	116	406
Hay, Alfalfa	2,379	413
Hay, Mixed	4,533	-
Hay, Mixed Alfalfa/Grass	250	874
Haylage, Mixed	108	-
Straw	323	1,132
Dairy, Milk	651,219	470,858
Dairy Heifers (for sale)	7,458	26,105
Dairy Finishing	12,537	14,686
Dairy Feeder	6,580	13,827
User Added Livestock, User Added	7,032	-
Cull breeding livestock	53,724	82,383
Direct, CCP & ACRE pymts	25,859	27,640
Other government payments	145	-
Custom work income	1,905	95
Patronage dividends, cash	259	-
Insurance income	42,238	60,788
Other farm income	9,857	10,600
Gross Cash Farm Income	826,522	709,805

Table 6

Farm Income Statement (Continued)

2011 MI UP Dairy

(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	High 25%
Number of farms	14	5
Cash Farm Expense		
Seed	23,552	21,297
Fertilizer	41,151	39,397
Crop chemicals	6,488	4,733
Storage	780	-
Crop miscellaneous	1,117	-
Feeder livestock purchase	762	2,667
Purchased feed	197,916	105,331
Breeding fees	7,773	5,056
Veterinary	14,858	11,180
Supplies	24,304	18,749
Hauling and trucking	16,146	10,880
Marketing	8,441	6,054
Bedding	6,902	7,489
Interest	24,619	16,241
Fuel & oil	47,542	26,708
Repairs	34,839	31,991
Custom hire	18,620	832
Hired labor	84,529	61,381
Land rent	10,576	8,382
Machinery leases	6,769	-
Real estate taxes	13,377	10,224
Farm insurance	16,653	11,085
Utilities	17,463	16,857
Dues & professional fees	6,805	9,299
Miscellaneous	6,984	6,037
Total cash expense	638,964	431,868
Net cash farm income	187,558	277,938
Inventory Changes		
Prepays and supplies	3,199	1,841
Accounts receivable	3,761	-51
Hedging accounts	-	-
Other current assets	-540	-
Crops and feed	-20,604	-1,049
Market livestock	-4,740	-5,144
Breeding livestock	14,434	2,695
Other assets	12,703	44,459
Accounts payable	-10,413	641
Accrued interest	-	-
Total inventory change	-2,200	43,392
Net operating profit	185,358	321,329
Depreciation		
Machinery and equipment	-47,820	-63,435
Titled vehicles	-	-
Buildings and improvements	-14,524	23,626

Total depreciation	-62,344	-39,809
Net farm income from operations	123,014	281,521
Gain or loss on capital sales	-	-
Net farm income	123,014	281,521

Table 7

Inventory Changes
2011 MI UP Dairy
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	High 25%
Number of farms	14	5
Net cash farm income	187,558	277,938
Crops and Feed		
Ending inventory	129,203	103,149
Beginning inventory	149,807	104,198
Inventory change	-20,604	-1,049
Market Livestock		
Ending inventory	15,232	13,125
Beginning inventory	19,972	18,269
Inventory change	-4,740	-5,144
Accts Receivable		
Ending inventory	32,196	19,704
Beginning inventory	28,435	19,755
Inventory change	3,761	-51
Prepaid Expenses and Supplies		
Ending inventory	16,338	13,466
Beginning inventory	13,140	11,625
Inventory change	3,199	1,841
Hedging Activities		
Ending inventory	254	-
Withdrawals	-	-
Beginning inventory	254	-
Deposits	-	-
Gain or loss	-	-
Other Current Assets		
Ending inventory	1,278	25
Beginning inventory	1,819	25
Inventory change	-540	-
Breeding Livestock		
Ending inventory	401,355	221,288
Capital sales	20,104	70,363
Beginning inventory	404,988	285,575
Capital purchases	2,037	3,380
Depreciation, capital adjust	14,434	2,695
Other Capital Assets		
Ending inventory	39,921	26,807
Capital sales	10,953	37,923
Beginning inventory	34,914	19,713
Capital purchases	3,258	557
Depreciation, capital adjust	12,703	44,459
Accounts Payable		
Beginning inventory	69,029	2,270
Ending inventory	79,442	1,629
Inventory change	-10,413	641
Accrued Interest		
Beginning inventory	2	-
Ending inventory	2	-
Inventory change	-	-
Total inventory change	-2,200	43,392
Net operating profit	185,358	321,329

Table 8

Depreciation
2011 MI UP Dairy
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	High 25%
Number of farms	14	5
Net operating profit	185,358	321,329
Machinery and Equipment		
Ending inventory	131,261	132,302
Capital sales	600	1,140
Beginning inventory	104,479	85,689
Capital purchases	75,203	111,187
Depreciation, capital adjust.	-47,820	-63,435
Titled Vehicles		
Ending inventory	-	-
Capital sales	-	-
Beginning inventory	-	-
Capital purchases	-	-
Depreciation, capital adjust.	-	-
Buildings and Improvements		
Ending inventory	145,869	85,194
Capital sales	13,214	46,250
Beginning inventory	157,643	93,673
Capital purchases	15,964	14,145
Depreciation, capital adjust.	-14,524	23,626
Total depreciation, capital adj.	-62,344	-39,809
Net farm income from operations	123,014	281,521
Gain or loss on capital sales	-	-
Net farm income	123,014	281,521

Table 9

Profitability Measures

2011 MI UP Dairy

(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	High 25%
Number of farms	14	5
Profitability (assets valued at cost)		
Net farm income from operations	123,014	281,521
Rate of return on assets	9.1 %	26.7 %
Rate of return on equity	13.7 %	37.0 %
Operating profit margin	15.7 %	35.0 %
Asset turnover rate	58.0 %	76.3 %
Farm interest expense	24,619	16,241
Value of operator lbr and mgmt.	48,214	72,500
Return on farm assets	99,419	225,262
Average farm assets	1,092,621	842,762
Return on farm equity	74,800	209,021
Average farm equity	545,746	565,108
Value of farm production	633,260	642,717
	Avg. Of All Farms	High 25%
Number of farms	14	5
Profitability (assets valued at market)		
Net farm income from operations	163,426	465,858
Rate of return on assets	7.2 %	24.8 %
Rate of return on equity	8.3 %	28.7 %
Operating profit margin	22.1 %	63.7 %
Asset turnover rate	32.7 %	39.0 %
Farm interest expense	24,619	16,241
Value of operator lbr and mgmt.	48,214	72,500
Return on farm assets	139,831	409,599
Average farm assets	1,939,233	1,648,528
Return on farm equity	115,212	393,358
Average farm equity	1,392,357	1,370,874
Value of farm production	633,260	642,717

Table 10

Liquidity & Repayment Capacity Measures

2011 MI UP Dairy

(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	High 25%
Number of farms	14	5
Liquidity		
Current ratio	1.43	5.08
Working capital	69,897	184,385
Working capital to gross inc	8.4 %	24.6 %
Current assets	233,328	229,537
Current liabilities	163,431	45,152
Gross revenues (accrual)	831,937	750,715
Repayment capacity		
Net farm income from operations	123,014	281,521
Depreciation	62,344	39,809
Personal income	11,311	2,784
Family living/owner withdrawals	-61,148	-62,059
Payments on personal debt	-	-
Income taxes paid	-1,431	-2,908
Interest on term debt	27,479	18,576
Capital debt repayment capacity	161,569	277,722
Scheduled term debt payments	-53,272	-48,149
Capital debt repayment margin	108,297	229,573
Cash replacement allowance	-20,204	-14,279
Replacement margin	88,093	215,294
Term debt coverage ratio	3.03	5.77
Replacement coverage ratio	2.20	4.45

Table 11

Balance Sheet at Cost Values
2011 MI UP Dairy
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms		High 25%	
	14		5	
Number of farms	Beginning	Ending	Beginning	Ending
Assets				
Current Farm Assets				
Cash and checking balance	24,260	38,826	44,075	80,069
Prepaid expenses & supplies	13,140	16,338	11,625	13,466
Growing crops	1,384	982	0	0
Accounts receivable	28,435	32,196	19,755	19,704
Hedging accounts	254	254	0	0
Crops held for sale or feed	149,807	129,203	104,198	103,149
Crops under government loan	0	0	0	0
Market livestock held for sale	19,972	15,232	18,269	13,125
Other current assets	435	296	25	25
Total current farm assets	237,687	233,328	197,946	229,537
Intermediate Farm Assets				
Breeding livestock	404,988	401,355	285,575	221,288
Machinery and equipment	104,479	131,261	85,689	132,302
Titled vehicles	0	0	0	0
Other intermediate assets	4,852	5,284	1,507	2,232
Total intermediate farm assets	514,319	537,900	372,771	355,821
Long Term Farm Assets				
Farm land	146,864	146,935	153,777	154,027
Buildings and improvements	157,643	145,869	93,673	85,194
Other long-term assets	30,061	34,637	18,207	24,575
Total long-term farm assets	334,568	327,442	265,656	263,795
Total Farm Assets	1,086,573	1,098,669	836,372	849,152
Total Nonfarm Assets	62,649	65,220	114,369	115,997
Total Assets	1,149,222	1,163,889	950,741	965,149
Liabilities				
Current Farm Liabilities				
Accrued interest	2	2	0	0
Accounts payable	69,029	79,442	2,270	1,629
Current notes	78,863	59,783	75,316	24,586
Government crop loans	0	0	0	0
Principal due on term debt	25,793	24,204	29,573	18,937
Total current farm liabilities	173,686	163,431	107,159	45,152
Total intermediate farm liabs	157,987	114,199	215,040	101,886
Total long term farm liabilities	244,735	239,713	58,203	27,871
Total farm liabilities	576,409	517,342	380,401	174,908
Total nonfarm liabilities	0	0	0	0
Total liabilities	576,409	517,342	380,401	174,908
Net worth (farm and nonfarm)	572,814	646,547	570,341	790,241
Net worth change		73,733		219,901
Percent net worth change		13 %		39 %
Ratio Analysis				
Current farm liabilities / assets	73 %	70 %	54 %	20 %
Intermediate farm liab. / assets	31 %	21 %	58 %	29 %
Long term farm liab. / assets	73 %	73 %	22 %	11 %
Total debt to asset ratio	50 %	44 %	40 %	18 %

Table 12

Balance Sheet at Market Values

2011 MI UP Dairy

(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of		High 25%	
	All Farms			
Number of farms	14		5	
	Beginning	Ending	Beginning	Ending
Assets				
Current Farm Assets				
Cash and checking balance	24,260	38,826	44,075	80,069
Prepaid expenses & supplies	13,140	16,338	11,625	13,466
Growing crops	1,384	982	0	0
Accounts receivable	28,435	32,196	19,755	19,704
Hedging accounts	254	254	0	0
Crops held for sale or feed	149,807	129,203	104,198	103,149
Crops under government loan	0	0	0	0
Market livestock held for sale	19,972	15,232	18,269	13,125
Other current assets	435	296	25	25
Total current farm assets	237,687	233,328	197,946	229,537
Intermediate Farm Assets				
Breeding livestock	404,988	401,355	285,575	221,288
Machinery and equipment	349,887	383,103	348,750	417,832
Titled vehicles	0	0	0	0
Other intermediate assets	24,281	24,712	1,507	2,232
Total intermediate farm assets	779,155	809,171	635,832	641,351
Long Term Farm Assets				
Farm land	522,324	577,678	497,167	690,905
Buildings and improvements	341,714	311,056	200,875	167,135
Other long-term assets	32,098	34,255	18,150	18,160
Total long-term farm assets	896,137	922,989	716,192	876,200
Total Farm Assets	1,912,979	1,965,487	1,549,969	1,747,087
Total Nonfarm Assets	149,181	165,699	175,505	178,447
Total Assets	2,062,159	2,131,186	1,725,474	1,925,534
Liabilities				
Current Farm Liabilities				
Accrued interest	2	2	0	0
Accounts payable	69,029	79,442	2,270	1,629
Current notes	78,863	59,783	75,316	24,586
Government crop loans	0	0	0	0
Principal due on term debt	25,793	24,204	29,573	18,937
Total current farm liabilities	173,686	163,431	107,159	45,152
Total intermediate farm liabs	157,987	114,199	215,040	101,886
Total long term farm liabilities	244,735	239,713	58,203	27,871
Total farm liabilities	576,409	517,342	380,401	174,908
Total nonfarm liabilities	0	0	0	0
Total liabs excluding deferreds	576,409	517,342	380,401	174,908
Total deferred liabilities	0	0	0	0
Total liabilities	576,409	517,342	380,401	174,908
Retained earnings	572,814	646,547	570,341	790,241
Market valuation equity	912,937	967,297	774,733	960,385
Net worth (farm and nonfarm)	1,485,751	1,613,844	1,345,073	1,750,626
Net worth excluding deferreds	1,485,751	1,613,844	1,345,073	1,750,626
Net worth change		128,093		405,553
Percent net worth change		9 %		30 %
Ratio Analysis				
Current farm liabilities / assets	73 %	70 %	54 %	20 %
Intermediate farm liab. / assets	20 %	14 %	34 %	16 %
Long term farm liab. / assets	27 %	26 %	8 %	3 %
Total debt to asset ratio	28 %	24 %	22 %	9 %
Debt to assets excl deferreds	28 %	24 %	22 %	9 %

Table 13

Statement Of Cash Flows

2011 MI UP Dairy

(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	High 25%
Number of farms	14	5
Beginning cash (farm & nonfarm)	24,260	44,075
Cash Provided By Operating Activities		
Gross cash farm income	826,522	709,805
Total cash farm expense	-638,964	-431,868
Net cash from hedging transactions	-	-
Cash provided by operating	187,558	277,938
Cash Provided By Investing Activities		
Sale of breeding livestock	20,104	70,363
Sale of machinery & equipment	600	1,140
Sale of titled vehicles	-	-
Sale of farm land	-	-
Sale of farm buildings	13,214	46,250
Sale of other farm assets	10,953	37,923
Sale of nonfarm assets	-	-
Purchase of breeding livestock	-2,037	-3,380
Purchase of machinery & equip.	-75,203	-111,187
Purchase of titled vehicles	-	-
Purchase of farm land	-	-
Purchase of farm buildings	-15,964	-14,145
Purchase of other farm assets	-3,258	-557
Purchase of nonfarm assets	-1,507	-1,315
Cash provided by investing	-53,098	25,091
Cash Provided By Financing Activities		
Money borrowed	41,572	31,358
Principal payments	-111,051	-236,210
Personal income	11,311	2,784
Family living/owner withdrawals	-61,148	-62,059
Income and social security tax	-1,431	-2,908
Capital contributions	-	-
Capital distributions	-1,607	-
Dividends paid	-	-
Cash gifts and inheritances	2,908	-
Gifts given	-449	-
Other cash flows	-	-
Cash provided by financing	-119,895	-267,035
Net change in cash balance	14,565	35,994
Ending cash (farm & nonfarm)	38,826	80,069

Table 14

Financial Standards Measures

2011 MI UP Dairy

(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	High 25%
Number of farms	14	5
Liquidity		
Current ratio	1.43	5.08
Working capital	69,897	184,385
Working capital to gross inc	8.4 %	24.6 %
Solvency (market)		
Farm debt to asset ratio	26 %	10 %
Farm equity to asset ratio	74 %	90 %
Farm debt to equity ratio	0.36	0.11
Profitability (cost)		
Rate of return on farm assets	9.1 %	26.7 %
Rate of return on farm equity	13.7 %	37.0 %
Operating profit margin	15.7 %	35.0 %
Net farm income	123,014	281,521
EBIDTA	209,977	337,570
Repayment Capacity		
Capital debt repayment capacity	161,569	277,722
Capital debt repayment margin	108,297	229,573
Replacement margin	88,093	215,294
Term debt coverage ratio	3.03	5.77
Replacement coverage ratio	2.20	4.45
Efficiency		
Asset turnover rate (cost)	58.0 %	76.3 %
Operating expense ratio	74.8 %	55.0 %
Depreciation expense ratio	7.5 %	5.3 %
Interest expense ratio	3.0 %	2.2 %
Net farm income ratio	14.8 %	37.5 %

Table 15

Operator and Labor Information

2011 MI UP Dairy

(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	High 25%
Number of farms	14	5
Operator Information		
Average number of operators	1.6	1.3
Average age of operators	54.0	54.0
Average number of years farming	27.5	29.0
Results Per Operator		
Working capital	42,546	147,508
Total assets (market)	1,297,243	1,540,427
Total liabilities	314,904	139,926
Net worth (market)	982,340	1,400,501
Net worth excl deferred liabs	982,340	1,400,501
Gross farm income	506,397	600,572
Total farm expense	431,518	375,355
Net farm income from operations	74,878	225,216
Net nonfarm income	6,885	2,227
Family living & tax withdrawals	38,091	51,974
Total acres owned	301.1	387.2
Total crop acres	475.4	520.6
Crop acres owned	232.5	302.6
Crop acres cash rented	242.9	218.0
Crop acres share rented	-	-
Total pasture acres	-	-
Labor Analysis		
Number of farms	14	5
Total unpaid labor hours	4,357	3,750
Total hired labor hours	4,121	3,200
Total labor hours per farm	8,479	6,950
Unpaid hours per operator	2,652	3,000
Value of farm production / hour	74.69	92.48
Net farm income / unpaid hour	28.23	75.07
Average hourly hired labor wage	20.51	19.18
Partnerships & LLCs		
Number of farms	6	1
Number of operators	2.0	-
Owner withdrawals per farm	-	-
Withdrawals per operator	-	-

Table 16

Financial Summary
2011 MI UP Dairy

(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	High 25%
Number of farms	14	5
Income Statement		
Gross cash farm income	826,522	709,805
Total cash farm expense	638,964	431,868
Net cash farm income	187,558	277,938
Inventory change	-2,200	43,392
Depreciation	-62,344	-39,809
Net farm income from operations	123,014	281,521
Gain or loss on capital sales	-	-
Average net farm income	123,014	281,521
Median net farm income	77,943	151,863
Profitability (cost)		
Rate of return on assets	9.1 %	26.7 %
Rate of return on equity	13.7 %	37.0 %
Operating profit margin	15.7 %	35.0 %
Asset turnover rate	58.0 %	76.3 %
Profitability (market)		
Rate of return on assets	7.2 %	24.8 %
Rate of return on equity	8.3 %	28.7 %
Operating profit margin	22.1 %	63.7 %
Asset turnover rate	32.7 %	39.0 %
Liquidity & Repayment (end of year)		
Current assets	233,328	229,537
Current liabilities	163,431	45,152
Current ratio	1.43	5.08
Working capital	69,897	184,385
Working capital to gross inc	8.4 %	24.6 %
Term debt coverage ratio	3.03	5.77
Replacement coverage ratio	2.20	4.45
Solvency (end of year at cost)		
Number of farms	14	5
Total farm assets	1,098,669	849,152
Total farm liabilities	517,342	174,908
Total assets	1,163,889	965,149
Total liabilities	517,342	174,908
Net worth	646,547	790,241
Net worth change	73,733	219,901
Farm debt to asset ratio	47 %	21 %
Total debt to asset ratio	44 %	18 %
Solvency (end of year at market)		
Number of farms	14	5
Total farm assets	1,965,487	1,747,087
Total farm liabilities	517,342	174,908
Total assets	2,131,186	1,925,534
Total liabilities	517,342	174,908
Net worth	1,613,844	1,750,626
Net worth change	128,093	405,553
Farm debt to asset ratio	26 %	10 %
Total debt to asset ratio	24 %	9 %
Nonfarm Information		
Net nonfarm income	11,311	2,784
Crop Acres		
Total acres owned	495	484
Total crop acres	781	651
Total crop acres owned	382	378
Total crop acres cash rented	399	273
Total crop acres share rented	-	-

Table 17

Summary Farm Income Statement

2011 MI UP Dairy

(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	High 25%
Number of farms	14	5
Crop sales	7,709	2,824
Crop inventory change	-20,604	-1,049
Gross crop income	-12,896	1,776
Livestock sales	684,827	525,475
Livestock inventory change	-4,740	-5,144
Gross livestock income	680,087	520,331
Government payments	26,004	27,640
Other cash farm income	107,983	153,866
Change in accounts receivable	3,761	-51
Gain or loss on hedging accounts	-	-
Change in other assets	12,564	44,459
Gain or loss on breeding lvst	14,434	2,695
Gross farm income	831,937	750,715
Cash operating expenses	614,345	415,626
Change in prepaids and supplies	-3,199	-1,841
Change in growing crops	402	-
Change in accounts payable	10,413	-641
Depreciation	62,344	39,809
Total operating expense	684,304	452,953
Interest paid	24,619	16,241
Change in accrued interest	-	-
Total interest expense	24,619	16,241
Total expenses	708,923	469,194
Net farm income from operations	123,014	281,521
Gain or loss on capital sales	-	-
Net farm income	123,014	281,521