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**2009 Michigan Upper Peninsula Dairy  
Business Analysis Summary**

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Staff Paper 2010-08

December, 2010



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# 2009 Michigan Upper Peninsula Dairy Farm Business Analysis Summary

Staff Paper No. 2010-08, December 2010

By

Eric Wittenberg and Christopher Wolf<sup>1</sup>

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<sup>1</sup> 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 18 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. Average values are reported in the summary tables and discussion that follows but readers should note that considerable variation exists in most measures.

In 2009, the average UP dairy farm in the business analysis had 164 cows producing an average of 19,454 pounds of milk per cow (Table 1). Milk price received averaged \$13.26/cwt. The total average acres owned were 708 and the average cropped acres were 843.

**Table 1. Average Michigan UP Dairy Farm Characteristics, 2005-2009**

	2005	2006	2007	2008	2009
Average number of cows	140	149	150	153	164
Milk sold per cow (pounds)	18,672	19,543	18,240	17,897	19,454
Average price of milk sold (\$/cwt)	15.94	13.50	19.05	19.42	13.26
Total acres owned	621	655	676	671	708
Total crop acres	689	756	786	783	843
Number of farms	30	27	24	23	18

Net farm income is the return to operator unpaid management, labor and capital invested. Net farm income in 2009 averaged a negative \$54,320 (Table 2). The median was a negative \$20,300 and the standard deviation was a \$157,410 across the 18 dairy farms.

**Table 2. Average Michigan UP Dairy Farm Income Statement, 2005-2009**

	2005	2006	2007	2008	2009
	(\$)	(\$)	(\$)	(\$)	(\$)
Gross cash farm income	552,192	531,643	673,978	701,117	609,927
- Total cash expense	410,527	437,583	536,890	538,514	537,808
= Net cash farm income	141,665	94,060	137,088	162,602	72,119
+ Inventory change*	-7,345	16,610	12,378	17,513	-66,354
+ Depreciation and capital adjustments*	-69,158	-78,541	-65,476	-85,333	-60,085
= Net farm income	65,162	32,129	83,990	94,783	-54,320

\*Changes calculated as ending value minus beginning value.

Gross cash farm income averaged \$609,927 in 2009. The largest component of these revenues was milk sales, which averaged \$433,727. The second largest revenue was direct and CC government payment income at \$57,275 and third was insurance income at \$27,754. Average total cash expenses were \$537,808 and average net cash farm income was \$72,119. Inventory changes were a negative \$66,354, on average farms were losing inventories, while depreciation and capital adjustments averaged \$60,085. The net farm income value is the return to operator unpaid management, labor and capital invested averaged a negative \$54,320 in 2009, the lowest 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 2009 dairy farm ROA (Market) was a negative 0.8 percent, the lowest in the 5 years (Table 3). Return on equity tells a similar story. 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 2009, Michigan's UP dairy farms generated a negative 4.5 cents of profit per dollar of revenue. Asset turnover is gross farm revenue divided by average asset value. Asset turnover measures the efficiency with which farm assets generate revenue.

**Table 3. Average Michigan UP Dairy Farm Profitability Indicators, 2005-2009**

	2005	2006	2007	2008	2009
	(%)	(%)	(%)	(%)	(%)
Rate of return on assets*	5.9	4.1	4.7	6.1	-0.8
Rate of return on equity	6.6	3.5	4.3	6.2	-2.8
Operating profit margin	21.7	17.4	12.0	23.2	-4.5
Asset turnover rate*	27.3	23.4	27.7	26.1	18.4

\* 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 18 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.* All farm sales are not included in the income items—only those that are related to the milking herd. 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 \$4.59/cwt. and family living was the second largest at \$3.12/cwt and hired labor was third at \$2.05/cwt. Repairs, Fuel and Oil, Interest, Depreciation, Leases, and milk marketing and trucking combined were also significant expenses for 2009.

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\*, 2009**

<b>Income Items:</b>	<b>Per cwt.</b>	<b>Per Cow</b>
Milk	\$13.26	\$2,554.91
Cull Cows and Calves	\$1.08	\$166.74
Dairy Steers	\$0.61	\$110.58
Dairy Heifers	\$0.66	\$135.30
Government Payments	\$2.04	\$378.38
Patronage Dividends, cash	\$0.37	\$39.23
Crop Sales	\$1.11	\$191.78
Other Cash Income	\$2.26	\$353.67
<b>Expense Items:</b>	<b>Per cwt.</b>	<b>Per Cow</b>
Purchased Feeds	\$4.59	\$900.37
Breeding Fees	\$ 0.18	\$34.27
Veterinary	\$0.35	\$72.26
Livestock Supplies	\$0.82	\$133.89
DHIA	\$0.08	\$20.15
Milk & Livestock Mkt. & Trucking	\$0.99	\$173.91
Interest	\$1.11	\$186.62
Fuel and Oil	\$1.26	\$198.36
Repairs	\$1.31	\$202.71
Custom Hire	\$0.47	\$80.39
Hired Labor	\$2.05	\$421.45
Leases	\$1.06	\$198.66
Real Estate Taxes	\$0.44	\$72.25
Farm Insurance	\$0.78	\$112.50
Utilities	\$0.67	\$111.94
Dues, Professional Fees	\$0.20	\$36.02
Miscellaneous	\$0.57	\$65.35
Machinery Depreciation	\$1.06	\$203.21
Building Depreciation	\$0.71	\$125.60
Family Living	\$3.12	\$490.51
<b>Expense Items per Cropped Acre:</b>	<b>Per Acre</b>	
Seed	\$25.86	
Fertilizer	\$47.45	
Crop Chemicals	\$18.26	
Crop Insurance	\$1.82	
Crop Miscellaneous	\$1.71	
Land Rent	\$17.76	

All income and expense items averaged across all 18 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  
**2009 MI Dairy UP Farms**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	High 25%
Dairy		
Number of farms	18	5
Average number of cows,		
Milk production per cows lbs.,		
Average milk price per cwt.,		
Acreage Summary		
Total acres owned	708	423
Total crop acres	843	845
Crop acres owned	501	425
Crop acres cash rented	343	420
Crop acres share rented	-	-
Total pasture acres	-	-
Percent crop acres owned	59 %	50 %

Table 6

Farm Income Statement  
**2009 MI Dairy UP Farms**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	High 25%
Number of farms	18	5
Cash Farm Income		
Corn	992	3,500
Hay, Alfalfa	3,655	3,549
Oats	42	153
Soybeans	4,508	16,228
Sunflowers	207	745
Wheat, Winter	1,595	5,743
Miscellaneous crop income	134	79
Dairy, Milk	433,727	441,743
Dairy, Dairy Calves	3,003	402
Dairy Heifers (for sale)	1,482	1,880
Dairy Finishing	4,715	4,248
Sheep, Market Lamb Prod, Mkt Lamb	44	158
Dairy Feeder	716	-
User Added Livestock, User Added	2,245	-
Cull breeding livestock	25,057	24,638
Direct & CC govt payments	57,275	26,978
Other government payments	12,969	21,619
Custom work income	19,580	3,129
Patronage dividends, cash	811	2,732
Insurance income	27,754	16,432
Other farm income	9,419	8,253
Gross Cash Farm Income	609,927	582,207

Table 6

## Farm Income Statement (Continued)

**2009 MI Dairy UP Farms**

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

	Avg. Of All Farms	High 25%
Number of farms	18	5
Cash Farm Expense		
Seed	16,936	19,693
Fertilizer	33,565	24,953
Crop chemicals	7,860	6,973
Crop insurance	104	374
Drying expense	40	145
Crop marketing	38	136
Feeder livestock purchase	6,537	-
Purchased feed	151,659	157,761
Breeding fees	4,487	2,911
Veterinary	12,913	11,292
Livestock supplies	8,718	13,598
DHIA	501	-
Contract production exp.	132	-
Hauling and trucking	13,388	9,750
Livestock marketing	13,270	17,090
Bedding	5,012	1,389
Interest	27,878	38,190
Supplies	12,863	11,289
Fuel & oil	30,363	26,745
Repairs	31,112	24,143
Repair, machinery	100	360
Custom hire	15,503	5,082
Repair, buildings	539	-
Hired labor	73,555	68,616
Land rent	9,446	3,801
Machinery leases	8,061	20,473
Real estate taxes	10,288	9,996
Farm insurance	16,721	17,088
Utilities	16,253	17,433
Dues & professional fees	5,215	5,720
Miscellaneous	4,751	5,703
Total cash expense	537,808	520,701
Net cash farm income	72,119	61,507
Inventory Changes		
Prepays and supplies	-1,141	-4,360
Accounts receivable	-21,164	1,313
Hedging accounts	198	-
Other current assets	271	-1,760
Crops and feed	18,584	23,864
Market livestock	-649	4,399
Breeding livestock	-20,672	-4,883
Other assets	-5,688	281
Accounts payable	-36,093	4,271
Accrued interest	-	-
Total inventory change	-66,354	23,125

Net operating profit	5,765	84,632
Depreciation		
Machinery and equipment	-34,887	-39,983
Titled vehicles	-	-
Buildings and improvements	-25,199	-14,858
Total depreciation	-60,085	-54,841
Net farm income from operations	-54,320	29,791
Gain or loss on capital sales	-	-
Net farm income	-54,320	29,791

Table 7

**Inventory Changes**  
**2009 MI Dairy UP Farms**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	High 25%
Number of farms	18	5
Net cash farm income	72,119	61,507
Crops and Feed		
Ending inventory	126,434	160,053
Beginning inventory	107,851	136,189
Inventory change	18,584	23,864
Market Livestock		
Ending inventory	16,048	10,744
Beginning inventory	16,697	6,345
Inventory change	-649	4,399
Accts Receivable		
Ending inventory	26,891	19,213
Beginning inventory	48,055	17,900
Inventory change	-21,164	1,313
Prepaid Expenses and Supplies		
Ending inventory	14,639	1,000
Beginning inventory	15,780	5,360
Inventory change	-1,141	-4,360
Hedging Activities		
Ending inventory	198	-
Withdrawals	-	-
Beginning inventory	-	-
Deposits	-	-
Gain or loss	198	-
Other Current Assets		
Ending inventory	2,396	1,600
Beginning inventory	2,124	3,360
Inventory change	271	-1,760
Breeding Livestock		
Ending inventory	416,622	411,770
Capital sales	-	-
Beginning inventory	421,947	400,563
Capital purchases	15,348	16,090
Depreciation, capital adjust	-20,672	-4,883
Other Capital Assets		
Ending inventory	155,928	38,321
Capital sales	43	157
Beginning inventory	157,001	35,829
Capital purchases	4,659	2,368
Depreciation, capital adjust	-5,688	281
Accounts Payable		
Beginning inventory	27,829	19,893
Ending inventory	63,922	15,622
Inventory change	-36,093	4,271
Accrued Interest		
Beginning inventory	-	-
Ending inventory	-	-
Inventory change	-	-
Total inventory change	-66,354	23,125
Net operating profit	5,765	84,632

Table 8

Depreciation  
**2009 MI Dairy UP Farms**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	High 25%
Number of farms	18	5
Net operating profit	5,765	84,632
Machinery and Equipment		
Ending inventory	89,784	93,602
Capital sales	1,998	540
Beginning inventory	100,008	120,126
Capital purchases	26,660	13,998
Depreciation, capital adjust.	-34,887	-39,983
Titled Vehicles		
Ending inventory	-	-
Capital sales	-	-
Beginning inventory	-	-
Capital purchases	-	-
Depreciation, capital adjust.	-	-
Buildings and Improvements		
Ending inventory	154,809	121,038
Capital sales	-	-
Beginning inventory	174,277	135,889
Capital purchases	5,731	7
Depreciation, capital adjust.	-25,199	-14,858
Total depreciation, capital adj.	-60,085	-54,841
Net farm income from operations	-54,320	29,791
Gain or loss on capital sales	-	-
Net farm income	-54,320	29,791

Table 9

Profitability Measures  
**2009 MI Dairy UP Farms**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	High 25%
Number of farms	18	5
Profitability (assets valued at cost)		
Net farm income from operations	-54,320	29,791
Rate of return on assets	-3.7 %	3.7 %
Rate of return on equity	-11.5 %	0.5 %
Operating profit margin	-10.9 %	8.9 %
Asset turnover rate	33.7 %	41.9 %
Farm interest expense	27,878	38,190
Value of operator lbr and mgmt.	19,733	28,000
Return on farm assets	-46,175	39,981
Average farm assets	1,253,645	1,072,090
Return on farm equity	-74,053	1,791
Average farm equity	645,023	347,916
Value of farm production	422,933	449,420
	Avg. Of All Farms	High 25%
Number of farms	18	5
Profitability (assets valued at market)		
Net farm income from operations	-27,326	63,307
Rate of return on assets	-0.8 %	3.7 %
Rate of return on equity	-2.8 %	2.8 %
Operating profit margin	-4.5 %	16.4 %
Asset turnover rate	18.4 %	22.8 %
Farm interest expense	27,878	38,190
Value of operator lbr and mgmt.	19,733	28,000
Return on farm assets	-19,181	73,496
Average farm assets	2,293,800	1,968,851
Return on farm equity	-47,059	35,307
Average farm equity	1,685,178	1,244,677
Value of farm production	422,933	449,420

Table 10

Liquidity & Repayment Capacity Measures  
**2009 MI Dairy UP Farms**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	High 25%
Number of farms	18	5
Liquidity		
Current ratio	1.32	1.63
Working capital	51,168	91,055
Working capital to gross inc	8.8 %	15.0 %
Current assets	213,243	236,233
Current liabilities	162,075	145,178
Gross revenues (accrual)	581,129	607,181
Repayment capacity		
Net farm income from operations	-54,320	29,791
Depreciation	60,085	54,841
Personal income	6,307	-3,073
Family living/owner withdrawals	-67,432	-95,358
Payments on personal debt	-	-
Income taxes paid	-2,064	-738
Interest on term debt	26,654	45,685
Capital debt repayment capacity	-30,770	31,148
Scheduled term debt payments	-58,782	-74,735
Capital debt repayment margin	-89,552	-43,588
Cash replacement allowance	-21,611	-24,804
Replacement margin	-111,162	-68,392
Term debt coverage ratio	-0.52	0.42
Replacement coverage ratio	-0.38	0.31

Table 11

Balance Sheet at Cost Values  
**2009 MI Dairy UP Farms**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms		High 25%	
Number of farms	18		5	
	Beginning	Ending	Beginning	Ending
<b>Assets</b>				
<b>Current Farm Assets</b>				
Cash and checking balance	32,592	26,637	36,383	43,624
Prepaid expenses & supplies	15,780	14,639	5,360	1,000
Growing crops	933	611	3,360	1,600
Accounts receivable	48,055	26,891	17,900	19,213
Hedging accounts	0	198	0	0
Crops held for sale or feed	107,851	126,434	136,189	160,053
Crops under government loan	0	0	0	0
Market livestock held for sale	16,697	16,048	6,345	10,744
Other current assets	1,191	1,784	0	0
<b>Total current farm assets</b>	<b>223,099</b>	<b>213,243</b>	<b>205,536</b>	<b>236,233</b>
<b>Intermediate Farm Assets</b>				
Breeding livestock	421,947	416,622	400,563	411,770
Machinery and equipment	100,008	89,784	120,126	93,602
Titled vehicles	0	0	0	0
Other intermediate assets	7,063	8,373	15,676	18,268
<b>Total intermediate farm assets</b>	<b>529,018</b>	<b>514,780</b>	<b>536,366</b>	<b>523,640</b>
<b>Long Term Farm Assets</b>				
Farm land	197,034	203,537	160,636	184,636
Buildings and improvements	174,277	154,809	135,889	121,038
Other long-term assets	149,938	147,555	20,152	20,053
<b>Total long-term farm assets</b>	<b>521,249</b>	<b>505,901</b>	<b>316,678</b>	<b>325,727</b>
<b>Total Farm Assets</b>	<b>1,273,366</b>	<b>1,233,924</b>	<b>1,058,580</b>	<b>1,085,601</b>
<b>Total Nonfarm Assets</b>	<b>48,749</b>	<b>49,549</b>	<b>12,324</b>	<b>15,088</b>
<b>Total Assets</b>	<b>1,322,116</b>	<b>1,283,473</b>	<b>1,070,904</b>	<b>1,100,689</b>
<b>Liabilities</b>				
<b>Current Farm Liabilities</b>				
Accrued interest	0	0	0	0
Accounts payable	27,829	63,922	19,893	15,622
Current notes	72,919	74,383	81,508	104,534
Government crop loans	0	0	0	0
Principal due on term debt	32,128	23,770	29,051	25,022
<b>Total current farm liabilities</b>	<b>132,876</b>	<b>162,075</b>	<b>130,452</b>	<b>145,178</b>
<b>Total intermediate farm liabs</b>	<b>167,066</b>	<b>224,675</b>	<b>207,183</b>	<b>253,134</b>
<b>Total long term farm liabilities</b>	<b>267,368</b>	<b>263,184</b>	<b>329,957</b>	<b>382,445</b>
<b>Total farm liabilities</b>	<b>567,310</b>	<b>649,934</b>	<b>667,592</b>	<b>780,757</b>
<b>Total nonfarm liabilities</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total liabilities</b>	<b>567,310</b>	<b>649,934</b>	<b>667,592</b>	<b>780,757</b>
<b>Net worth (farm and nonfarm)</b>	<b>754,806</b>	<b>633,539</b>	<b>403,312</b>	<b>319,932</b>
<b>Net worth change</b>		<b>-121,267</b>		<b>-83,381</b>
<b>Percent net worth change</b>		<b>-16 %</b>		<b>-21 %</b>
<b>Ratio Analysis</b>				
Current farm liabilities / assets	60 %	76 %	63 %	61 %
Intermediate farm liab. / assets	32 %	44 %	39 %	48 %
Long term farm liab. / assets	51 %	52 %	104 %	117 %
<b>Total debt to asset ratio</b>	<b>43 %</b>	<b>51 %</b>	<b>62 %</b>	<b>71 %</b>

Table 12

## Balance Sheet at Market Values

## 2009 MI Dairy UP Farms

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

	Avg. Of		High 25%	
	All Farms		High 25%	
Number of farms	18		5	
	Beginning	Ending	Beginning	Ending
<b>Assets</b>				
<b>Current Farm Assets</b>				
Cash and checking balance	32,592	26,637	36,383	43,624
Prepaid expenses & supplies	15,780	14,639	5,360	1,000
Growing crops	933	611	3,360	1,600
Accounts receivable	48,055	26,891	17,900	19,213
Hedging accounts	0	198	0	0
Crops held for sale or feed	107,851	126,434	136,189	160,053
Crops under government loan	0	0	0	0
Market livestock held for sale	16,697	16,048	6,345	10,744
Other current assets	1,191	1,784	0	0
<b>Total current farm assets</b>	<b>223,099</b>	<b>213,243</b>	<b>205,536</b>	<b>236,233</b>
<b>Intermediate Farm Assets</b>				
Breeding livestock	421,947	418,556	400,563	418,730
Machinery and equipment	351,021	342,600	371,660	355,720
Titled vehicles	0	0	0	0
Other intermediate assets	22,539	23,484	15,676	18,268
<b>Total intermediate farm assets</b>	<b>795,507</b>	<b>784,640</b>	<b>787,899</b>	<b>792,718</b>
<b>Long Term Farm Assets</b>				
Farm land	779,605	790,771	594,740	618,740
Buildings and improvements	352,783	349,575	330,400	322,500
Other long-term assets	149,030	149,347	20,007	28,928
<b>Total long-term farm assets</b>	<b>1,281,418</b>	<b>1,289,693</b>	<b>945,147</b>	<b>970,168</b>
<b>Total Farm Assets</b>	<b>2,300,024</b>	<b>2,287,576</b>	<b>1,938,583</b>	<b>1,999,120</b>
<b>Total Nonfarm Assets</b>	<b>122,833</b>	<b>124,744</b>	<b>141,245</b>	<b>144,008</b>
<b>Total Assets</b>	<b>2,422,858</b>	<b>2,412,320</b>	<b>2,079,827</b>	<b>2,143,128</b>
<b>Liabilities</b>				
<b>Current Farm Liabilities</b>				
Accrued interest	0	0	0	0
Accounts payable	27,829	63,922	19,893	15,622
Current notes	72,919	74,383	81,508	104,534
Government crop loans	0	0	0	0
Principal due on term debt	32,128	23,770	29,051	25,022
<b>Total current farm liabilities</b>	<b>132,876</b>	<b>162,075</b>	<b>130,452</b>	<b>145,178</b>
<b>Total intermediate farm liabs</b>	<b>167,066</b>	<b>224,675</b>	<b>207,183</b>	<b>253,134</b>
<b>Total long term farm liabilities</b>	<b>267,368</b>	<b>263,184</b>	<b>329,957</b>	<b>382,445</b>
<b>Total farm liabilities</b>	<b>567,310</b>	<b>649,934</b>	<b>667,592</b>	<b>780,757</b>
<b>Total nonfarm liabilities</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total liabs excluding deferreds</b>	<b>567,310</b>	<b>649,934</b>	<b>667,592</b>	<b>780,757</b>
<b>Total deferred liabilities</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total liabilities</b>	<b>567,310</b>	<b>649,934</b>	<b>667,592</b>	<b>780,757</b>
Retained earnings	754,806	633,539	403,312	319,932
Market valuation equity	1,100,742	1,128,847	1,008,924	1,042,439
<b>Net worth (farm and nonfarm)</b>	<b>1,855,548</b>	<b>1,762,386</b>	<b>1,412,236</b>	<b>1,362,371</b>
<b>Net worth excluding deferreds</b>	<b>1,855,548</b>	<b>1,762,386</b>	<b>1,412,236</b>	<b>1,362,371</b>
Net worth change		-93,162		-49,865
Percent net worth change		-5 %		-4 %
<b>Ratio Analysis</b>				
Current farm liabilities / assets	60 %	76 %	63 %	61 %
Intermediate farm liab. / assets	21 %	29 %	26 %	32 %
Long term farm liab. / assets	21 %	20 %	35 %	39 %
Total debt to asset ratio	23 %	27 %	32 %	36 %
Debt to assets excl deferreds	23 %	27 %	32 %	36 %

Table 13

Statement Of Cash Flows  
**2009 MI Dairy UP Farms**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	High 25%
Number of farms	18	5
Beginning cash (farm & nonfarm)	32,592	36,383
Cash Provided By Operating Activities		
Gross cash farm income	609,927	582,207
Total cash farm expense	-537,808	-520,701
Net cash from hedging transactions	-	-
Cash provided by operating	72,119	61,507
Cash Provided By Investing Activities		
Sale of breeding livestock	-	-
Sale of machinery & equipment	1,998	540
Sale of titled vehicles	-	-
Sale of farm land	-	-
Sale of farm buildings	-	-
Sale of other farm assets	43	157
Sale of nonfarm assets	-	-
Purchase of breeding livestock	-15,348	-16,090
Purchase of machinery & equip.	-26,660	-13,998
Purchase of titled vehicles	-	-
Purchase of farm land	-12,062	-43,423
Purchase of farm buildings	-5,731	-7
Purchase of other farm assets	-4,659	-2,368
Purchase of nonfarm assets	-877	-
Cash provided by investing	-63,295	-75,189
Cash Provided By Financing Activities		
Money borrowed	129,919	217,860
Principal payments	-83,387	-100,424
Personal income	6,307	-3,073
Family living/owner withdrawals	-67,432	-95,358
Income and social security tax	-2,064	-738
Capital contributions	-	-
Capital distributions	-	-
Dividends paid	-	-
Cash gifts and inheritances	2,212	2,656
Gifts given	-333	-
Other cash flows	-	-
Cash provided by financing	-14,779	20,924
Net change in cash balance	-5,955	7,241
Ending cash (farm & nonfarm)	26,637	43,624

Table 14

Financial Standards Measures  
**2009 MI Dairy UP Farms**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	High 25%
Number of farms	18	5
Liquidity		
Current ratio	1.32	1.63
Working capital	51,168	91,055
Working capital to gross inc	8.8 %	15.0 %
Solvency (market)		
Farm debt to asset ratio	28 %	39 %
Farm equity to asset ratio	72 %	61 %
Farm debt to equity ratio	0.40	0.64
Profitability (cost)		
Rate of return on farm assets	-3.7 %	3.7 %
Rate of return on farm equity	-11.5 %	0.5 %
Operating profit margin	-10.9 %	8.9 %
Net farm income	-54,320	29,791
EBIDTA	33,644	122,822
Repayment Capacity		
Capital debt repayment capacity	-30,770	31,148
Capital debt repayment margin	-89,552	-43,588
Replacement margin	-111,162	-68,392
Term debt coverage ratio	-0.52	0.42
Replacement coverage ratio	-0.38	0.31
Efficiency		
Asset turnover rate (cost)	33.7 %	41.9 %
Operating expense ratio	94.2 %	79.8 %
Depreciation expense ratio	10.3 %	9.0 %
Interest expense ratio	4.8 %	6.3 %
Net farm income ratio	-9.3 %	4.9 %

Table 15

Operator and Labor Information  
**2009 MI Dairy UP Farms**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	High 25%
Number of farms	18	5
Operator Information		
Average number of operators	1.7	1.8
Average age of operators	51.3	51.3
Average number of years farming	25.8	29.0
Results Per Operator		
Working capital	30,701	50,586
Total assets (market)	1,447,392	1,190,627
Total liabilities	389,960	433,754
Net worth (market)	1,057,432	756,873
Net worth excl deferred liabs	1,057,432	756,873
Gross farm income	348,678	337,323
Total farm expense	381,270	320,772
Net farm income from operations	-32,592	16,551
Net nonfarm income	3,784	-1,707
Family living & tax withdrawals	41,698	53,387
Total acres owned	425.0	235.0
Total crop acres	506.0	469.2
Crop acres owned	300.3	236.1
Crop acres cash rented	205.7	233.1
Crop acres share rented	-	-
Total pasture acres	-	-
Labor Analysis		
Number of farms	18	5
Total unpaid labor hours	4,644	5,500
Total hired labor hours	4,870	6,842
Total labor hours per farm	9,515	12,342
Unpaid hours per operator	2,787	3,056
Value of farm production / hour	44.45	36.41
Net farm income / unpaid hour	-11.70	5.42
Average hourly hired labor wage	15.10	10.03
Partnerships & LLCs		
Number of farms	8	2
Number of operators	2.3	-
Owner withdrawals per farm	-	-
Withdrawals per operator	-	-

Table 16

Financial Summary  
**2009 MI Dairy UP Farms**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	High 25%
Number of farms	18	5
Income Statement		
Gross cash farm income	609,927	582,207
Total cash farm expense	537,808	520,701
Net cash farm income	72,119	61,507
Inventory change	-66,354	23,125
Depreciation	-60,085	-54,841
Net farm income from operations	-54,320	29,791
Gain or loss on capital sales	-	-
Average net farm income	-54,320	29,791
Median net farm income	-20,300	24,470
Profitability (cost)		
Rate of return on assets	-3.7 %	3.7 %
Rate of return on equity	-11.5 %	0.5 %
Operating profit margin	-10.9 %	8.9 %
Asset turnover rate	33.7 %	41.9 %
Profitability (market)		
Rate of return on assets	-0.8 %	3.7 %
Rate of return on equity	-2.8 %	2.8 %
Operating profit margin	-4.5 %	16.4 %
Asset turnover rate	18.4 %	22.8 %
Liquidity & Repayment (end of year)		
Current assets	213,243	236,233
Current liabilities	162,075	145,178
Current ratio	1.32	1.63
Working capital	51,168	91,055
Working capital to gross inc	8.8 %	15.0 %
Term debt coverage ratio	-0.52	0.42
Replacement coverage ratio	-0.38	0.31
Solvency (end of year at cost)		
Number of farms	18	5
Total farm assets	1,233,924	1,085,601
Total farm liabilities	649,934	780,757
Total assets	1,283,473	1,100,689
Total liabilities	649,934	780,757
Net worth	633,539	319,932
Net worth change	-121,267	-83,381
Farm debt to asset ratio	53 %	72 %
Total debt to asset ratio	51 %	71 %
Solvency (end of year at market)		
Number of farms	18	5
Total farm assets	2,287,576	1,999,120
Total farm liabilities	649,934	780,757
Total assets	2,412,320	2,143,128
Total liabilities	649,934	780,757
Net worth	1,762,386	1,362,371
Net worth change	-93,162	-49,865
Farm debt to asset ratio	28 %	39 %
Total debt to asset ratio	27 %	36 %
Nonfarm Information		
Net nonfarm income	6,307	-3,073
Crop Acres		
Total acres owned	708	423
Total crop acres	843	845
Total crop acres owned	501	425
Total crop acres cash rented	343	420
Total crop acres share rented	-	-