

**2016 Michigan Preliminary Dairy  
Farm Business  
Analysis Summary**

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**2016 Michigan Preliminary Dairy Farm Business Analysis Summary**

**By**

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**Table 1**

<b>Income Items:</b>	<b>Per cwt.</b>	<b>Per Cow</b>
Milk	\$15.07	\$3,781.65
Cull Cows and Calves	\$1.32	\$324.52
Dairy Steers	\$0.36	\$68.59
Dairy Heifers	\$0.32	\$80.20
Government Payments	\$0.49	\$106.42
Patronage Dividends, cash	\$0.26	\$71.77
Crop Sales	\$2.61	\$515.67
Other Cash Income	\$0.68	\$169.42
<b>Expense Items:</b>	<b>Per cwt.</b>	<b>Per Cow</b>
Purchased Feeds	\$4.96	\$1,210.68
Breeding Fees	\$0.18	\$47.49
Veterinary	\$0.45	\$117.93
Livestock Supplies	\$1.15	\$282.84
DHIA	\$0.07	\$19.39
Milk & Livestock Mkt. & Trucking	\$1.09	\$264.19
Interest	\$0.66	\$156.33
Fuel and Oil	\$0.64	\$148.04
Repairs	\$1.05	\$251.40
Custom Hire	\$0.50	\$116.23
Hired Labor	\$2.86	\$729.12
Leases	\$0.41	\$108.27
Real Estate Taxes	\$0.35	\$71.69
Farm Insurance	\$0.36	\$82.39
Utilities	\$0.60	\$139.37
Dues, Professional Fees	\$0.13	\$29.22
Miscellaneous	\$0.59	\$144.89
Machinery Depreciation	\$0.89	\$215.56
Building Depreciation	\$0.41	\$95.36
Family Living	\$1.22	\$287.30
<b>Expense Items per Cropped Acre:</b>	<b>Per Acre</b>	
Seed	\$75.14	
Fertilizer	\$90.03	
Crop Chemicals	\$41.35	
Crop Insurance	\$18.32	
Crop Miscellaneous	\$38.07	
Land Rent	\$95.16	

\* All income and expense items averaged across all 32 farms whether or not they had that income or expense item. Other cash income includes custom work, insurance claims, and miscellaneous income.

**Table 2****Dairy Average Income and Expenses across all Herds (\$)**

<b>Revenue</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>Average</b>
Milk	18.67	20.63	24.28	17.06	15.07	19.14
Culls	1.39	1.29	1.71	1.84	1.32	1.51
Steers	1.08	0.92	2.77	1.10	0.36	1.25
Heifers	0.29	0.26	0.44	0.66	0.32	0.39
Gov. Payments	0.88	0.53	0.23	0.48	0.49	0.52
Pat. Div.	0.19	0.18	0.16	0.19	0.26	0.20
Crop Sales	4.27	2.93	2.87	1.94	2.61	2.92
Other	0.80	0.88	0.65	1.02	0.68	0.81
<b>Expenses</b>						
Purchased Feed	6.14	6.81	6.97	5.89	4.96	6.15
Breeding	0.19	0.22	0.20	0.20	0.18	0.20
Vet	0.55	0.57	0.52	0.53	0.45	0.52
LvstckSupplies	0.81	0.72	1.08	0.90	1.15	0.93
DHIA	0.10	0.10	0.08	0.09	0.07	0.09
Mkt & Trucking	0.89	0.84	0.91	1.02	1.09	0.95
Interest	0.90	0.83	0.64	0.72	0.66	0.75
Fuel and oil	1.31	1.11	1.04	0.85	0.64	0.99
Repairs	1.44	1.33	1.46	1.33	1.05	1.32
Custom Hire	0.73	0.74	0.95	0.70	0.50	0.72
Hired Labor	2.63	2.78	2.91	2.94	2.86	2.82
Leases	0.38	0.37	0.37	0.44	0.41	0.39
Real Estate Taxes	0.30	0.30	0.28	0.31	0.35	0.31
Insurance	0.41	0.38	0.43	0.43	0.36	0.40
Utilities	0.62	0.63	0.69	0.58	0.60	0.62
Professional fees	0.20	0.14	0.17	0.15	0.13	0.16
Misc	0.62	0.75	1.03	0.63	0.59	0.72
Machinery Dep	1.52	1.27	0.85	1.13	0.89	1.13
Building Dep	0.91	0.82	0.67	0.60	0.41	0.68
Family Living	1.52	1.25	1.55	1.45	1.22	1.40
<b>Expenses per Cropped Acre</b>						
Seed	56.42	63.79	73.99	82.75	75.14	70.42
Fertilizer	79.84	74.50	90.18	78.88	90.03	82.69
Crop Chemical	24.28	26.66	35.49	25.50	41.35	30.66
Crop Insurance	8.59	10.39	8.16	17.36	18.32	12.56
Crop Misc.	8.46	19.25	11.71	37.15	38.07	22.93
Land Rent	53.10	58.46	67.56	68.16	95.16	68.49

Table 3

Crop Production and Marketing Summary  
**2016 MI Dairy (All Farms)**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Dairy			
Number of farms	32	8	8
Average number of cows	379	327	369
Milk production per cow, lbs.	24,032	23,896	25,678
Average milk price per cwt.,	\$15.07	\$14.82	\$15.25
Acreage Summary			
Total acres owned	548	539	478
Total crop acres	896	832	957
Crop acres owned	443	98	658
Crop acres cash rented	454	734	299
Crop acres share rented	-	-	-
Total pasture acres	-	-	-
Percent crop acres owned	49 %	12 %	69 %
Mach invest/crop acre cost	1,084	833	976
Mach invest/crop acre market	1,194	833	1,349
Average Price Received (Cash Sales Only)			
Corn per bushel	3.43	-	3.36
Soybeans per bushel	9.09	9.15	-
Wheat, Winter per bushel	3.87	-	-

Table 4

Farm Income Statement  
**2016 MI Dairy (All Farms)**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	32	8	8
Cash Farm Income			
Corn	42,889	72,547	53,457
Corn Silage	4,063	29	-
Hay, Alfalfa	5,292	714	599
Haylage, Alfalfa	797	-	-
Safflower	239	-	-
Soybeans	47,652	51,129	111,927
Straw	165	357	234
Wheat, Spring	438	1,879	-
Wheat, Winter	11,022	21,047	2,693
Miscellaneous crop income	94	-	-
Beef Cow-Calf, Beef Calves	2,607	-	-
Beef Finishing	581	-	-
Dairy, Milk	1,573,806	1,366,699	1,446,391
Dairy, Dairy Calves	23,546	25,800	24,514
Dairy Heifers (for sale)	6,465	-	-
Dairy Replacement Heifers	5,592	-	216
Dairy Finishing	1,440	-	3,728
Dairy Feeder	58	-	216
Cull breeding livestock	129,117	92,005	101,499
Misc. livestock income	890	-	-
Crop government payments	25,703	18,323	29,386
CRP payments	287	-	1,075
Livestock govt payments	863	3,698	-
Other government payments	2,201	1,535	4,091
Custom work income	12,249	144	24,379
Patronage dividends, cash	39,562	22,214	7,974
Crop insurance income	7,412	1,114	3,613
Property insurance income	672	-	1,740
Personal wages & salary	41	-	152
Contract livestock income	153	-	-
Real estate tax refund	1,284	-	1,696
Other farm income	17,237	1,930	10,242
Gross Cash Farm Income	1,964,674	1,681,164	1,829,823

Table 4

## Farm Income Statement (continued)

**2016 MI Dairy (All Farms)**

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

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	32	8	8
Cash Farm Expense			
Seed	49,503	53,894	51,864
Fertilizer	58,318	56,187	46,690
Crop chemicals	26,755	28,307	20,951
Crop insurance	4,640	3,822	4,751
Drying expense	2,381	7,168	1,057
Storage	768	73	744
Crop packaging and supplies	4,477	578	669
Crop supplies	1,092	-	-
Crop fuel & oil	681	-	2,554
Crop custom hire	519	770	-
Crop hauling and trucking	438	16	-
Crop marketing	5,577	8,600	1,228
Crop miscellaneous	9,671	37,327	160
Crop consultants	4,446	-	1,144
Feeder livestock purchase	13,397	-	50,239
Purchased feed	465,996	406,951	418,206
Breeding fees	21,499	15,297	10,549
Veterinary	55,881	54,450	42,890
Livestock supplies	87,317	33,651	48,188
DHIA	2,233	298	3,738
Contract production exp.	15,993	-	31,035
Livestock insurance	424	-	1,591
Livestock leases	360	1,542	-
Grazing fees	713	-	-
Livestock hauling and trucking	53,675	54,440	29,988
Livestock marketing	38,015	17,095	65,693
Bedding	22,229	20,811	10,980
Livestock consultants	856	-	-
Interest	57,078	29,677	72,257
Packaging and supplies	4,557	-	-
Supplies	30,938	89,320	12,823
Fuel & oil	48,723	37,125	43,953
Repairs	45,361	35,069	46,673
Repair, machinery	44,552	55,779	32,784
Repair, livestock equip	1,126	-	1,250
Custom hire	33,521	42,947	10,386
Repair, buildings	5,202	5,002	5,842
Hired labor	307,466	250,325	241,064
Land rent	76,293	110,116	49,293
Machinery leases	26,068	77,100	15,381
Real estate taxes	17,590	16,370	23,622
Personal property taxes	698	2,236	-
Farm insurance	26,361	21,673	22,104

Utilities	51,483	41,248	39,453
Dues & professional fees	10,758	17,348	9,005
Miscellaneous	8,927	7,588	7,975
Total cash expense	1,744,556	1,640,199	1,478,771
Net cash farm income	220,119	40,964	351,052
Inventory Changes			
Prepays and supplies	-27,232	-6,420	-31,910
Accounts receivable	-8,894	-53,689	1,287
Hedging accounts	1,716	-	6,435
Other current assets	2,294	5,420	3,944
Crops and feed	-7,114	-14,311	19,312
Market livestock	1,042	1,602	1,308
Breeding livestock	846	2,624	4,015
Other assets	2,889	1,245	6,547
Accounts payable	-37,197	-9,842	-66,327
Accrued interest	-40	705	-1,838
Total inventory change	-71,689	-72,667	-57,228
Net operating profit	148,429	-31,702	293,824
Depreciation			
Machinery and equipment	-92,585	-115,314	-70,502
Titled vehicles	-1,071	-34	-1,590
Buildings and improvements	-34,789	-16,562	-28,820
Total depreciation	-128,445	-131,910	-100,912
Net farm income from operations	19,984	-163,612	192,912
Gain or loss on capital sales	-	-	-
Net farm income	19,984	-163,612	192,912



Table 5

Inventory Changes  
**2016 MI Dairy (All Farms)**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	32	8	8
Net cash farm income	220,119	40,964	351,052
Crops and Feed			
Ending inventory	453,731	333,856	457,689
Beginning inventory	460,845	348,166	438,378
Inventory change	-7,114	-14,311	19,312
Market Livestock			
Ending inventory	6,137	3,135	2,079
Beginning inventory	5,095	1,533	771
Inventory change	1,042	1,602	1,308
Accts Receivable			
Ending inventory	89,571	63,648	65,606
Beginning inventory	98,464	117,337	64,318
Inventory change	-8,894	-53,689	1,287
Prepaid Expenses and Supplies			
Ending inventory	96,021	172,511	79,235
Beginning inventory	123,252	178,930	111,144
Inventory change	-27,232	-6,420	-31,910
Hedging Activities			
Ending inventory	-	-	-
Withdrawals	1,716	-	6,435
Beginning inventory	-	-	-
Deposits	-	-	-
Gain or loss	1,716	-	6,435
Other Current Assets			
Ending inventory	31,511	31,348	23,802
Beginning inventory	29,217	25,929	19,858
Inventory change	2,294	5,420	3,944
Breeding Livestock			
Ending inventory	1,132,283	850,714	1,025,578
Capital sales	12,776	53,910	209
Beginning inventory	1,084,814	898,642	968,278
Capital purchases	59,400	3,359	53,494
Depreciation, capital adjust	846	2,624	4,015
Other Capital Assets			
Ending inventory	204,151	155,217	234,258
Capital sales	34,541	16,664	28,213
Beginning inventory	166,856	141,741	189,650
Capital purchases	68,948	28,895	66,273
Depreciation, capital adjust	2,889	1,245	6,547
Accounts Payable			
Beginning inventory	42,093	3,763	31,675
Ending inventory	79,290	13,605	98,002
Inventory change	-37,197	-9,842	-66,327
Accrued Interest			
Beginning inventory	2,312	1,550	2,394
Ending inventory	2,352	845	4,232
Inventory change	-40	705	-1,838
Total inventory change	-71,689	-72,667	-57,228
Net operating profit	148,429	-31,702	293,824

Table 6

Depreciation  
**2016 MI Dairy (All Farms)**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	32	8	8
Net operating profit	148,429	-31,702	293,824
Machinery and Equipment			
Ending inventory	962,069	709,226	923,373
Capital sales	3,642	2,186	1,947
Beginning inventory	958,291	675,289	917,438
Capital purchases	100,005	151,437	78,383
Depreciation, capital adjust.	-92,585	-115,314	-70,502
Titled Vehicles			
Ending inventory	11,070	716	13,187
Capital sales	-	-	-
Beginning inventory	12,141	750	14,777
Capital purchases	-	-	-
Depreciation, capital adjust.	-1,071	-34	-1,590
Buildings and Improvements			
Ending inventory	958,891	328,767	1,002,184
Capital sales	477	-	251
Beginning inventory	943,105	342,626	961,090
Capital purchases	51,051	2,703	70,166
Depreciation, capital adjust.	-34,789	-16,562	-28,820
Total depreciation, capital adj.	-128,445	-131,910	-100,912
Net farm income from operations	19,984	-163,612	192,912
Gain or loss on capital sales	-	-	-
Net farm income	19,984	-163,612	192,912

Table 7

Profitability Measures  
**2016 MI Dairy (All Farms)**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	32	8	8
Profitability (assets valued at cost)			
Net farm income from operations	19,984	-163,612	192,912
Rate of return on assets	-0.5 %	-7.2 %	3.2 %
Rate of return on equity	-2.5 %	-11.0 %	2.7 %
Operating profit margin	-1.5 %	-16.6 %	11.2 %
Asset turnover rate	31.8 %	43.6 %	28.9 %
Farm interest expense	57,118	28,972	74,095
Value of operator lbr and mgmt.	99,215	66,244	109,868
Return on farm assets	-22,113	-200,884	157,139
Average farm assets	4,644,745	2,777,974	4,841,545
Return on farm equity	-79,231	-229,856	83,044
Average farm equity	3,192,306	2,098,038	3,123,287
Value of farm production	1,476,182	1,211,683	1,400,281
	Avg. Of All Farms	Low 25%	High 25%
Number of farms	32	8	8
Profitability (assets valued at market)			
Net farm income from operations	39,054	-161,952	246,987
Rate of return on assets	-0.1 %	-6.0 %	3.3 %
Rate of return on equity	-1.4 %	-8.7 %	3.0 %
Operating profit margin	-0.2 %	-16.4 %	15.1 %
Asset turnover rate	26.0 %	36.6 %	22.0 %
Farm interest expense	57,118	28,972	74,095
Value of operator lbr and mgmt.	99,215	66,244	109,868
Return on farm assets	-3,043	-199,224	211,214
Average farm assets	5,676,139	3,308,313	6,364,262
Return on farm equity	-60,161	-228,196	137,119
Average farm equity	4,223,700	2,628,377	4,646,004
Value of farm production	1,476,182	1,211,683	1,400,281

Table 8

Liquidity & Repayment Capacity Measures  
**2016 MI Dairy (All Farms)**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	32	8	8
Liquidity			
Current ratio	2.67	7.20	1.94
Working capital	501,679	518,053	347,056
Working capital to gross inc	25.7 %	32.0 %	18.6 %
Current assets	801,318	601,634	716,162
Current liabilities	299,639	83,581	369,106
Gross revenues (accrual)	1,955,576	1,618,634	1,868,726
Repayment capacity			
Net farm income from operations	19,984	-163,612	192,912
Depreciation	128,445	131,910	100,912
Personal income	3,498	1,249	2,301
Family living/owner withdrawals	-76,311	-51,317	-86,142
Cash discrepancy	-1	-4	0
Payments on personal debt	-2,863	-6,914	-2,190
Income taxes paid	-4,193	-3,991	-10,382
Interest on term debt	48,905	11,022	62,284
Capital debt repayment capacity	117,465	-81,654	259,695
Scheduled term debt payments	-193,181	-51,627	-256,493
Capital debt repayment margin	-75,717	-133,281	3,203
Cash replacement allowance	-51,158	-48,078	-48,972
Replacement margin	-126,875	-181,359	-45,769
Term debt coverage ratio	0.61	-1.58	1.01
Replacement coverage ratio	0.48	-0.82	0.85

Table 9

Balance Sheet at Cost Values  
**2016 MI Dairy (All Farms)**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms		Low 25%		High 25%	
	32		8		8	
Number of farms	Beginning	Ending	Beginning	Ending	Beginning	Ending
<b>Assets</b>						
<b>Current Farm Assets</b>						
Cash and checking balance	133,828	124,349	25,581	-2,863	122,395	87,752
Prepaid expenses & supplies	123,252	96,021	178,930	172,511	111,144	79,235
Growing crops	28,491	30,368	25,929	31,348	19,858	23,802
Accounts receivable	98,464	89,571	117,337	63,648	64,318	65,606
Hedging accounts	0	0	0	0	0	0
Crops held for sale or feed	460,845	453,731	348,166	333,856	438,378	457,689
Crops under government loan	0	0	0	0	0	0
Market livestock held for sale	5,095	6,137	1,533	3,135	771	2,079
Other current assets	726	1,142	0	0	0	0
<b>Total current farm assets</b>	<b>850,701</b>	<b>801,318</b>	<b>697,477</b>	<b>601,634</b>	<b>756,865</b>	<b>716,162</b>
<b>Intermediate Farm Assets</b>						
Breeding livestock	1,084,814	1,132,283	898,642	850,714	968,278	1,025,578
Machinery and equipment	958,291	962,069	675,289	709,226	917,438	923,373
Titled vehicles	12,141	11,070	750	716	14,777	13,187
Other intermediate assets	152,309	175,632	141,741	155,217	161,487	206,695
<b>Total intermediate farm assets</b>	<b>2,207,555</b>	<b>2,281,054</b>	<b>1,716,422</b>	<b>1,715,874</b>	<b>2,061,981</b>	<b>2,168,833</b>
<b>Long Term Farm Assets</b>						
Farm land	579,944	623,856	75,860	77,288	898,414	1,061,836
Buildings and improvements	943,105	958,891	342,626	328,767	961,090	1,002,184
Other long-term assets	14,546	28,519	0	0	28,163	27,563
<b>Total long-term farm assets</b>	<b>1,537,595</b>	<b>1,611,266</b>	<b>418,486</b>	<b>406,055</b>	<b>1,887,666</b>	<b>2,091,583</b>
<b>Total Farm Assets</b>	<b>4,595,852</b>	<b>4,693,638</b>	<b>2,832,384</b>	<b>2,723,564</b>	<b>4,706,513</b>	<b>4,976,578</b>
<b>Total Nonfarm Assets</b>	<b>280,427</b>	<b>295,894</b>	<b>593,972</b>	<b>607,729</b>	<b>319,626</b>	<b>324,571</b>
<b>Total Assets</b>	<b>4,876,279</b>	<b>4,989,532</b>	<b>3,426,356</b>	<b>3,331,292</b>	<b>5,026,138</b>	<b>5,301,149</b>
<b>Liabilities</b>						
<b>Current Farm Liabilities</b>						
Accrued interest	2,312	2,352	1,550	845	2,394	4,232
Accounts payable	42,093	79,290	3,763	13,605	31,675	98,002
Current notes	72,965	84,601	56,650	39,782	69,556	80,048
Government crop loans	0	0	0	0	0	0
Principal due on term debt	144,276	133,397	40,605	29,349	194,209	186,825
<b>Total current farm liabilities</b>	<b>261,646</b>	<b>299,639</b>	<b>102,568</b>	<b>83,581</b>	<b>297,834</b>	<b>369,106</b>
<b>Total intermediate farm liabs</b>	<b>246,239</b>	<b>245,611</b>	<b>66,700</b>	<b>26,895</b>	<b>379,631</b>	<b>418,117</b>
<b>Total long term farm liabilities</b>	<b>862,338</b>	<b>989,404</b>	<b>449,936</b>	<b>630,192</b>	<b>948,799</b>	<b>1,023,028</b>
<b>Total farm liabilities</b>	<b>1,370,223</b>	<b>1,534,654</b>	<b>619,204</b>	<b>740,669</b>	<b>1,626,264</b>	<b>1,810,252</b>
<b>Total nonfarm liabilities</b>	<b>37,270</b>	<b>25,110</b>	<b>65,357</b>	<b>45,107</b>	<b>42,437</b>	<b>34,429</b>
<b>Total liabilities</b>	<b>1,407,493</b>	<b>1,559,764</b>	<b>684,561</b>	<b>785,775</b>	<b>1,668,701</b>	<b>1,844,681</b>
<b>Net worth (farm and nonfarm)</b>	<b>3,468,786</b>	<b>3,429,768</b>	<b>2,741,795</b>	<b>2,545,517</b>	<b>3,357,437</b>	<b>3,456,468</b>
<b>Net worth change</b>		<b>-39,018</b>		<b>-196,278</b>		<b>99,031</b>
<b>Percent net worth change</b>		<b>-1 %</b>		<b>-7 %</b>		<b>3 %</b>
<b>Ratio Analysis</b>						
Current farm liabilities / assets	31 %	37 %	15 %	14 %	39 %	52 %
Intermediate farm liab. / assets	11 %	11 %	4 %	2 %	18 %	19 %
Long term farm liab. / assets	56 %	61 %	108 %	155 %	50 %	49 %
Total debt to asset ratio	29 %	31 %	20 %	24 %	33 %	35 %

Table 10

Balance Sheet at Market Values  
**2016 MI Dairy (All Farms)**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms		Low 25%		High 25%	
	32		8		8	
	Beginning	Ending	Beginning	Ending	Beginning	Ending
<b>Number of farms</b>						
<b>Assets</b>						
<b>Current Farm Assets</b>						
Cash and checking balance	133,828	124,349	25,581	-2,863	122,395	87,752
Prepaid expenses & supplies	123,252	96,021	178,930	172,511	111,144	79,235
Growing crops	28,491	30,368	25,929	31,348	19,858	23,802
Accounts receivable	98,464	89,571	117,337	63,648	64,318	65,606
Hedging accounts	0	0	0	0	0	0
Crops held for sale or feed	460,845	453,731	348,166	333,856	438,378	457,689
Crops under government loan	0	0	0	0	0	0
Market livestock held for sale	5,095	6,137	1,533	3,135	771	2,079
Other current assets	726	1,142	0	0	0	0
<b>Total current farm assets</b>	<b>850,701</b>	<b>801,318</b>	<b>697,477</b>	<b>601,634</b>	<b>756,865</b>	<b>716,162</b>
<b>Intermediate Farm Assets</b>						
Breeding livestock	1,084,799	1,132,283	898,578	850,714	968,278	1,025,578
Machinery and equipment	1,054,765	1,062,711	675,289	709,226	1,266,931	1,287,797
Titled vehicles	12,141	11,070	750	716	14,777	13,187
Other intermediate assets	152,309	175,632	141,741	155,217	161,487	206,695
<b>Total intermediate farm assets</b>	<b>2,304,014</b>	<b>2,381,696</b>	<b>1,716,358</b>	<b>1,715,874</b>	<b>2,411,474</b>	<b>2,533,257</b>
<b>Long Term Farm Assets</b>						
Farm land	1,454,040	1,510,801	605,457	608,457	1,888,934	2,085,159
Buildings and improvements	994,400	1,012,233	342,602	328,767	1,116,756	1,164,190
Other long-term assets	14,555	28,519	0	0	28,163	27,563
<b>Total long-term farm assets</b>	<b>2,462,996</b>	<b>2,551,553</b>	<b>948,059</b>	<b>937,224</b>	<b>3,033,853</b>	<b>3,276,912</b>
<b>Total Farm Assets</b>	<b>5,617,711</b>	<b>5,734,567</b>	<b>3,361,893</b>	<b>3,254,733</b>	<b>6,202,192</b>	<b>6,526,332</b>
<b>Total Nonfarm Assets</b>	<b>335,023</b>	<b>345,299</b>	<b>660,096</b>	<b>678,853</b>	<b>353,613</b>	<b>358,559</b>
<b>Total Assets</b>	<b>5,952,733</b>	<b>6,079,866</b>	<b>4,021,989</b>	<b>3,933,586</b>	<b>6,555,805</b>	<b>6,884,891</b>
<b>Liabilities</b>						
<b>Current Farm Liabilities</b>						
Accrued interest	2,312	2,352	1,550	845	2,394	4,232
Accounts payable	42,093	79,290	3,763	13,605	31,675	98,002
Current notes	72,965	84,601	56,650	39,782	69,556	80,048
Government crop loans	0	0	0	0	0	0
Principal due on term debt	144,276	133,397	40,605	29,349	194,209	186,825
<b>Total current farm liabilities</b>	<b>261,646</b>	<b>299,639</b>	<b>102,568</b>	<b>83,581</b>	<b>297,834</b>	<b>369,106</b>
<b>Total intermediate farm liabs</b>	<b>246,239</b>	<b>245,611</b>	<b>66,700</b>	<b>26,895</b>	<b>379,631</b>	<b>418,117</b>
<b>Total long term farm liabilities</b>	<b>862,338</b>	<b>989,404</b>	<b>449,936</b>	<b>630,192</b>	<b>948,799</b>	<b>1,023,028</b>
<b>Total farm liabilities</b>	<b>1,370,223</b>	<b>1,534,654</b>	<b>619,204</b>	<b>740,669</b>	<b>1,626,264</b>	<b>1,810,252</b>
<b>Total nonfarm liabilities</b>	<b>37,270</b>	<b>25,110</b>	<b>65,357</b>	<b>45,107</b>	<b>42,437</b>	<b>34,429</b>
<b>Total liabs excluding deferreds</b>	<b>1,407,493</b>	<b>1,559,764</b>	<b>684,561</b>	<b>785,775</b>	<b>1,668,701</b>	<b>1,844,681</b>
<b>Total deferred liabilities</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total liabilities</b>	<b>1,407,493</b>	<b>1,559,764</b>	<b>684,561</b>	<b>785,775</b>	<b>1,668,701</b>	<b>1,844,681</b>
<b>Retained earnings</b>	<b>3,468,786</b>	<b>3,429,768</b>	<b>2,741,795</b>	<b>2,545,517</b>	<b>3,357,437</b>	<b>3,456,468</b>
<b>Market valuation equity</b>	<b>1,076,455</b>	<b>1,090,335</b>	<b>595,633</b>	<b>602,293</b>	<b>1,529,667</b>	<b>1,583,742</b>
<b>Net worth (farm and nonfarm)</b>	<b>4,545,240</b>	<b>4,520,103</b>	<b>3,337,429</b>	<b>3,147,811</b>	<b>4,887,104</b>	<b>5,040,210</b>
<b>Net worth excluding deferreds</b>	<b>4,545,240</b>	<b>4,520,103</b>	<b>3,337,429</b>	<b>3,147,811</b>	<b>4,887,104</b>	<b>5,040,210</b>
<b>Net worth change</b>		<b>-25,138</b>		<b>-189,618</b>		<b>153,106</b>
<b>Percent net worth change</b>		<b>-1 %</b>		<b>-6 %</b>		<b>3 %</b>
<b>Ratio Analysis</b>						
<b>Current farm liabilities / assets</b>	<b>31 %</b>	<b>37 %</b>	<b>15 %</b>	<b>14 %</b>	<b>39 %</b>	<b>52 %</b>
<b>Intermediate farm liab. / assets</b>	<b>11 %</b>	<b>10 %</b>	<b>4 %</b>	<b>2 %</b>	<b>16 %</b>	<b>17 %</b>
<b>Long term farm liab. / assets</b>	<b>35 %</b>	<b>39 %</b>	<b>47 %</b>	<b>67 %</b>	<b>31 %</b>	<b>31 %</b>
<b>Total debt to asset ratio</b>	<b>24 %</b>	<b>26 %</b>	<b>17 %</b>	<b>20 %</b>	<b>25 %</b>	<b>27 %</b>
<b>Debt to assets excl deferreds</b>	<b>24 %</b>	<b>26 %</b>	<b>17 %</b>	<b>20 %</b>	<b>25 %</b>	<b>27 %</b>

Table 11

Statement Of Cash Flows  
**2016 MI Dairy (All Farms)**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	32	8	8
Beginning cash (farm & nonfarm)	133,847	25,663	122,395
<b>Cash Provided By Operating Activities</b>			
Gross cash farm income	1,964,674	1,681,164	1,829,823
Total cash farm expense	-1,744,556	-1,640,199	-1,478,771
Net cash from hedging transactions	1,716	-	6,435
Cash provided by operating	221,834	40,964	357,487
<b>Cash Provided By Investing Activities</b>			
Sale of breeding livestock	12,776	53,910	209
Sale of machinery & equipment	3,642	2,186	1,947
Sale of titled vehicles	-	-	-
Sale of farm land	1,558	-	5,841
Sale of farm buildings	477	-	251
Sale of other farm assets	34,541	16,664	28,213
Sale of nonfarm assets	1,469	6,295	-
Purchase of breeding livestock	-59,400	-3,359	-53,494
Purchase of machinery & equip.	-100,005	-151,437	-78,383
Purchase of titled vehicles	-	-	-
Purchase of farm land	-45,470	-1,429	-169,263
Purchase of farm buildings	-51,051	-2,703	-70,166
Purchase of other farm assets	-68,948	-28,895	-66,273
Purchase of nonfarm assets	-279	-145	-
Cash provided by investing	-270,690	-108,912	-401,118
<b>Cash Provided By Financing Activities</b>			
Money borrowed	486,203	376,651	368,393
Principal payments	-371,157	-284,522	-260,578
Personal income	3,498	1,249	2,301
Family living/owner withdrawals	-76,311	-51,317	-86,142
Income and social security tax	-4,193	-3,991	-10,382
Capital contributions	2,829	1,429	1,000
Capital distributions	-	-	-
Dividends paid	-	-	-
Cash gifts and inheritances	-	-	-
Gifts given	-	-	-
Other cash flows	-	-	-
Cash provided by financing	40,869	39,499	14,592
Net change in cash balance	-7,986	-28,449	-29,039
Ending cash (farm & nonfarm)	125,860	-2,789	93,356
Discrepancy	1	4	0

Table 12

## Financial Standards Measures

**2016 MI Dairy (All Farms)**

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

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	32	8	8
Liquidity			
Current ratio	2.67	7.20	1.94
Working capital	501,679	518,053	347,056
Working capital to gross inc	25.7 %	32.0 %	18.6 %
Solvency (market)			
Farm debt to asset ratio	27 %	23 %	28 %
Farm equity to asset ratio	73 %	77 %	72 %
Farm debt to equity ratio	0.37	0.29	0.38
Profitability (cost)			
Rate of return on farm assets	-0.5 %	-7.2 %	3.2 %
Rate of return on farm equity	-2.5 %	-11.0 %	2.7 %
Operating profit margin	-1.5 %	-16.6 %	11.2 %
Net farm income	19,984	-163,612	192,912
EBITDA	205,547	-2,730	367,919
Repayment Capacity			
Capital debt repayment capacity	117,465	-81,654	259,695
Capital debt repayment margin	-75,717	-133,281	3,203
Replacement margin	-126,875	-181,359	-45,769
Term debt coverage ratio	0.61	-1.58	1.01
Replacement coverage ratio	0.48	-0.82	0.85
Efficiency			
Asset turnover rate (cost)	31.8 %	43.6 %	28.9 %
Operating expense ratio	89.5 %	100.2 %	80.3 %
Depreciation expense ratio	6.6 %	8.1 %	5.4 %
Interest expense ratio	2.9 %	1.8 %	4.0 %
Net farm income ratio	1.0 %	-10.1 %	10.3 %



Table 13

Operator and Labor Information  
**2016 MI Dairy (All Farms)**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	32	8	8
Operator Information			
Average number of operators	1.6	1.1	1.5
Average age of operators	51.7	44.8	49.8
Average number of years farming	23.4	12.9	24.1
Results Per Operator			
Working capital	307,150	453,296	231,370
Total assets (market)	3,722,367	3,441,888	4,589,927
Total liabilities	954,957	687,553	1,229,787
Net worth (market)	2,767,410	2,754,334	3,360,140
Net worth excl deferred liabs	2,767,410	2,754,334	3,360,140
Gross farm income	1,197,291	1,416,305	1,245,817
Total farm expense	1,185,056	1,559,466	1,117,209
Net farm income from operations	12,235	-143,161	128,608
Net nonfarm income	2,142	1,093	1,534
Family living & tax withdrawals	49,289	48,398	64,349
Total acres owned	335.4	472.0	318.7
Total crop acres	548.6	728.3	638.2
Crop acres owned	270.9	85.6	438.7
Crop acres cash rented	277.7	642.7	199.6
Crop acres share rented	-	-	-
Total pasture acres	-	-	-
Labor Analysis			
Number of farms	32	8	8
Total unpaid labor hours	5,468	4,198	6,223
Total hired labor hours	19,828	14,466	15,934
Total labor hours per farm	25,296	18,664	22,157
Unpaid hours per operator	3,348	3,673	4,148
Value of farm production / hour	58.36	64.92	63.20
Net farm income / unpaid hour	3.66	-38.97	31.00
Average hourly hired labor wage	15.61	17.48	15.31
Partnerships & LLCs			
Number of farms	15	1	3
Number of operators	2.3	-	-
Owner withdrawals per farm	119,659	-	-
Withdrawals per operator	52,026	-	-

Table 14

Financial Summary  
**2016 MI Dairy (All Farms)**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	32	8	8
Income Statement			
Gross cash farm income	1,964,674	1,681,164	1,829,823
Total cash farm expense	1,744,556	1,640,199	1,478,771
Net cash farm income	220,119	40,964	351,052
Inventory change	-71,689	-72,667	-57,228
Depreciation	-128,445	-131,910	-100,912
Net farm income from operations	19,984	-163,612	192,912
Gain or loss on capital sales	-	-	-
Average net farm income	19,984	-163,612	192,912
Median net farm income	35,019	-93,152	199,092
Profitability (cost)			
Rate of return on assets	-0.5 %	-7.2 %	3.2 %
Rate of return on equity	-2.5 %	-11.0 %	2.7 %
Operating profit margin	-1.5 %	-16.6 %	11.2 %
Asset turnover rate	31.8 %	43.6 %	28.9 %
Profitability (market)			
Rate of return on assets	-0.1 %	-6.0 %	3.3 %
Rate of return on equity	-1.4 %	-8.7 %	3.0 %
Operating profit margin	-0.2 %	-16.4 %	15.1 %
Asset turnover rate	26.0 %	36.6 %	22.0 %
Liquidity & Repayment (end of year)			
Current assets	801,318	601,634	716,162
Current liabilities	299,639	83,581	369,106
Current ratio	2.67	7.20	1.94
Working capital	501,679	518,053	347,056
Working capital to gross inc	25.7 %	32.0 %	18.6 %
Term debt coverage ratio	0.61	-1.58	1.01
Replacement coverage ratio	0.48	-0.82	0.85
Term debt to EBITDA	5.39	-189.22	3.61
Solvency (end of year at cost)			
Number of farms	32	8	8
Total assets	4,989,532	3,331,292	5,301,149
Total liabilities	1,559,764	785,775	1,844,681
Net worth	3,429,768	2,545,517	3,456,468
Net worth change	-39,018	-196,278	99,031
Farm debt to asset ratio	33 %	27 %	36 %
Total debt to asset ratio	31 %	24 %	35 %
Change in earned net worth %	-1 %	-7 %	3 %
Solvency (end of year at market)			
Number of farms	32	8	8
Total assets	6,079,866	3,933,586	6,884,891
Total liabilities	1,559,764	785,775	1,844,681
Net worth	4,520,103	3,147,811	5,040,210
Total net worth change	-25,138	-189,618	153,106
Farm debt to asset ratio	27 %	23 %	28 %
Total debt to asset ratio	26 %	20 %	27 %
Change in total net worth %	-1 %	-6 %	3 %
Nonfarm Information			
Net nonfarm income	3,498	1,249	2,301
Crop Acres			
Total crop acres	896	832	957
Total crop acres owned	443	98	658
Total crop acres cash rented	454	734	299
Total crop acres share rented	-	-	-
Machinery value per crop acre	1,194	833	1,349

Table 15

Summary Farm Income Statement  
**2016 MI Dairy (All Farms)**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	32	8	8
Crop sales	112,908	147,703	168,909
Crop inventory change	-7,114	-14,311	19,312
Gross crop income	105,794	133,392	188,221
Livestock sales	1,614,141	1,392,498	1,475,065
Livestock inventory change	1,042	1,602	1,308
Gross livestock income	1,615,183	1,394,100	1,476,372
Government payments	29,054	23,556	34,552
Other cash farm income	208,571	117,406	151,297
Change in accounts receivable	-8,894	-53,689	1,287
Gain or loss on hedging accounts	1,716	-	6,435
Change in other assets	3,306	1,245	6,547
Gain or loss on breeding lvst	846	2,624	4,015
Gross farm income	1,955,576	1,618,634	1,868,726
Cash operating expenses	1,687,478	1,610,522	1,406,514
Change in prepaids and supplies	27,232	6,420	31,910
Change in growing crops	-1,877	-5,420	-3,944
Change in accounts payable	37,197	9,842	66,327
Depreciation	128,445	131,910	100,912
Total operating expense	1,878,474	1,753,274	1,601,719
Interest paid	57,078	29,677	72,257
Change in accrued interest	40	-705	1,838
Total interest expense	57,118	28,972	74,095
Total expenses	1,935,592	1,782,246	1,675,814
Net farm income from operations	19,984	-163,612	192,912
Gain or loss on capital sales	-	-	-
Net farm income	19,984	-163,612	192,912