

# ***Staff Paper***

## **2003 Michigan Dairy Farm Business Analysis Summary**

Eric Wittenberg  
And  
Christopher Wolf

**Staff Paper 04-19**

**November, 2004**



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 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, B. Battel, W. Schauer, D. Stein, and V. Varner with the assistance of Michigan State University Extension Agents. AgriSolutions co-workers were Kelly Tobin, Steve Eshelman, Janice Raymond, Tiffany Aldrich, Anne Gerke, Kathleen Spranger, 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 141 dairy farms from throughout 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 farms in this report were located throughout Michigan. The records came from Michigan State University's Telfarm/MicroTel project, the Farm Credit Service system, or by AgriSolutions in Michigan. The values were pooled into averages for reporting purposes. The farms are larger than would be the average of all dairy farms in Michigan. Farm records checked for accuracy. While considerable variation in the data exist, average values are reported in the summary tables and discussion that follows.

In 2003, the average dairy farm in the business analysis had 196 cows producing an average of 20,638 pounds of milk per cow (Table 1). Milk price, based on gross income, averaged \$12.59/cwt.

**Table 1. Average 2003 Michigan Dairy Farm Characteristics**

Average number of cows	196
Milk sold per cow (pounds)	20,638
Average price of milk sold (\$/cwt)	12.59
Total acres owned	452
Total crop acres	761

Net farm income is the return to operator unpaid management, labor and capital invested. Net farm income in 2003 averaged \$57,519. This average somewhat obscures a very large range of net farm income values. For example, the farms in the top 25 percent of the net farm income distribution averaged \$119,553 while those in the bottom 25 percent had -\$18,545. The 2003 average is more in line with the 2000 and 2001 values.

Gross cash farm income averaged \$695,048 in 2003. The largest component of these revenues were milk sales which averaged \$543,847. Average total cash expenses and average cash farm income were essentially the same as 2002. One improvement over 2002 was the positive inventory change which was over \$20,000 higher in 2003.

**Table 2. Average 2003 Michigan Dairy Farm Income Statement**

	2003
	(\$)
Gross cash farm income	695,048
Total cash expense	584,107
Net cash farm income	110,941
Inventory change*	2,197
Depreciation and capital adjustments*	-55,619
Net farm income	57,519

\*Changes calculated as ending value minus beginning value.

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 2003 dairy farm ROA (Market) was 4.3 percent which was improved over 2002 but still far below 2000 and 2001. 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 2003, Michigan dairy farms generated 14.9 cents of profit per dollar of revenue. Asset turnover is the gross farm revenues divided by average asset value. Asset turnover measures the efficiency with which farm assets generate revenue. This value declined slightly in 2003 to an average of 29 percent.

**Table 3. Average Michigan Dairy Farm Profitability Indicators, 2000-2003**

	2000	2001	2002	2003
	(percent)			
Rate of return on assets*	7.1	7.6	3.2	4.3
Rate of return on equity	7.1	8.1	2.1	4.1
Operating profit margin	21.4	22.3	11.0	14.9
Asset turnover rate*	33.3	33.9	29.3	29.0

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

Tables 4 and 5 display average income and expenses per hundredweight (cwt.) of milk and per cow. 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 includes all farm government payments—not just those related to the dairy herd. It was not possible to separate crop payments from dairy payments. Given the low milk prices in 2003, a large portion of government payments were likely in the form of the Milk Income Loss Contract (MILC).

Table 4 contains the average income and expense items across all 141 dairy farms in the 2003 summary while Table 5 displays the average income and expense items for farms that reported that item. For example, all farms had milk income so that income is identical in the tables. In contrast, only some farms reported BST expense so that item is larger when averaged only across those farms with that expense. By reporting the income and expense items averaged two ways in the tables, it allows for comparison of individual items with farms that had that item. *These tables 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 bottom of Tables 4 and 5 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 farms\*, 2003**

<b>Income Items:</b>	<b>Per cwt.</b>	<b>Per Cow</b>
Milk	\$12.59	\$2,591.48
Cull Cows and Calves	\$0.88	\$167.27
Dairy Steers	\$0.42	\$76.21
Dairy Heifers	\$0.13	\$24.06
Government Payments	\$1.51	\$281.48
Patronage Dividends, cash	\$0.16	\$31.14
Crop Sales	\$1.64	\$284.25
Other Cash Income	\$0.55	\$97.23
<b>Expense Items:</b>	<b>Per cwt.</b>	<b>Per Cow</b>
Purchased Feeds	\$3.54	\$724.75
Breeding Fees	\$ 0.11	\$24.95
Veterinary	\$0.41	\$88.39
BST	\$0.03	\$6.30
Livestock Supplies	\$0.89	\$171.85
DHIA	\$0.02	\$3.92
Milk & Livestock Mkt. & Trucking	\$0.74	\$148.05
Interest	\$0.88	\$160.15
Fuel and Oil	\$0.54	\$101.11
Repairs	\$1.06	\$202.00
Custom Hire	\$0.41	\$88.21
Hired Labor	\$2.14	\$450.17
Leases	\$0.21	\$41.57
Real Estate Taxes	\$0.29	\$52.28
Farm Insurance	\$0.35	\$66.20
Utilities	\$0.44	\$83.62
Dues, Professional Fees	\$0.16	\$29.23
Miscellaneous	\$0.31	\$61.99
Machinery Depreciation	\$1.29	\$243.92
Building Depreciation	\$0.47	\$95.60
<b>Expense Items per Cropped Acre:</b>	<b>Per Acre</b>	
Seed	\$18.86	
Fertilizer	\$23.37	
Crop Chemicals	\$16.17	
Crop Insurance	\$0.63	
Crop Miscellaneous	\$2.35	
Land Rent	\$29.81	

\* All income and expense items averaged across all 141 farms whether they had this income or expense item or not. Other cash income includes custom work, insurance claims, and miscellaneous income.

**Table 5. Average income and expenses across farms with that item\*, 2003**

<b>Income Items:</b>	<b>Per cwt.</b>	<b>Per Cow</b>
Milk	\$12.59	\$2,591.48
Cull Cows and Calves	\$0.89	\$170.78
Dairy Steers	\$0.85	\$152.41
Dairy Heifers	\$0.51	\$94.93
Government Payments	\$1.53	\$283.42
Patronage Dividends, cash	\$0.22	\$43.72
Crop Sales	\$3.29	\$574.89
Other Cash Income	\$1.25	\$214.84
<b>Expense Items:</b>	<b>Per cwt.</b>	<b>Per Cow</b>
Purchased Feeds	\$3.56	\$729.75
Breeding Fees	\$0.14	\$31.41
Veterinary	\$0.42	\$90.89
BST	\$0.32	\$70.76
Livestock Supplies	\$0.89	\$170.25
DHIA	\$0.11	\$21.18
Milk & Livestock Mkt. & Trucking	\$0.75	\$149.02
Interest	\$0.92	\$167.01
Fuel and Oil	\$0.54	\$101.11
Repairs	\$1.06	\$202.00
Custom Hire	\$0.46	\$97.57
Hired Labor	\$2.33	\$490.48
Leases	\$0.39	\$77.81
Real Estate Taxes	\$0.34	\$61.06
Farm Insurance	\$0.35	\$66.20
Utilities	\$0.44	\$83.62
Dues, Professional Fees	\$0.16	\$29.64
Miscellaneous	\$0.65	\$127.39
Machinery Depreciation	\$1.29	\$243.92
Building Depreciation	\$0.50	\$101.14
<b>Expense Items per Cropped Acre:</b>	<b>Per Acre</b>	
Seed	\$20.18	
Fertilizer	\$25.08	
Crop Chemicals	\$18.16	
Crop Insurance	\$1.99	
Crop Miscellaneous	\$4.90	
Land Rent	\$33.48	

\* Income and expense items averaged only across farms with that item. For example, all dairy farms had milk income but only some reported BST expense. Thus, milk income is the same as in Table 4 while BST is \$0.32/cwt across farms with that expense compared to \$0.03/cwt across all farms.

## Results by Herd Size

To further facilitate financial comparisons and benchmarking, the financial summaries were divided into herd size categories. The smallest size category, 22 to 99 cows, includes 40 herds. The medium size category, 100 to 249 cows, includes 66 herds. The largest size category, 250 or more cows, contains the remaining 35 herds.

Table 6 displays some average characteristics by herd size category. As expected, average milk production per cow is correlated with herd size across the size categories. Milk price is slightly higher for the medium and large herds. The smallest herds operated 6.7 crop acres per cow; the medium herds about 4.3 acres/cow; and the largest category about 3.2 acres/cow.

**Table 6. Average 2003 Michigan Dairy Farm Characteristics by Herd Size Category**

	22-99 cows	100-249 cows	250+ cows
Average number of cows	69	158	423
Milk sold per cow (pounds)	18,145	20,774	23,444
Average price of milk sold (\$/cwt)	12.49	12.63	12.67
Total acres owned	322	389	731
Total crop acres	461	675	1,335
Number of farms	40	66	35

Table 7 is the average farm income statement by herd size. Net farm income represents the returns to unpaid factors (e.g., labor). The smallest farms returned \$17,185; the medium farms \$56,947; and the largest farms \$104,692.

**Table 7. Average  
2003 Michigan Dairy Farm Income Statement by Herd Size**

	22-99 cows (\$)	100-249 cows (\$)	250+ cows (\$)
Gross cash farm income	251,260	545,723	1,483,818
Total cash expense	207,341	447,231	1,272,805
Net cash farm income	43,918	98,492	211,013
Inventory change *	-6,206	-1,841	12,473
Depreciation and capital adjustments*	-20,527	-43,386	-118,793
Net farm income	17,185	56,947	104,692

\*Changes calculated as ending value minus beginning value.



Table 8 compares profitability measures across herd size with assets valued at market value. ROA was highest on the largest farms in 2003. The largest farms realized the largest average operating profit margin and also the largest average asset turnover rate.

**Table 8. Average Michigan Dairy Farm Profitability Indicators by Herd Size**

	22-99 cows	100-249 cows	250+ cows
	(percent)		
Rate of return on assets*	1.4	4.0	5.6
Rate of return on equity	0.1	3.8	5.8
Operating profit margin	7.9	13.9	16.9
Asset turnover rate*	17.8	28.9	32.8

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

## A. Financial Summary Information, All 141 Farms

Table 9 Crop Production and Marketing Summary  
**Michigan Dairy, All Sizes, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
<b>Dairy</b>			
Number of farms	141	36	31
Average number of Cows	196	151	213
Milk Production per Cow, lbs.	20638	18596	20923
Average milk price per cwt.,	\$12.59	\$12.54	\$12.89
<b>Acreage Summary</b>			
Total acres owned	452	350	427
Total crop acres	771	647	949
Crop acres owned	403	246	535
Crop acres cash rented	391	364	570
Crop acres share rented	3	-	3
Total pasture acres	4	4	4
<b>Average Price Received (Cash Sales Only)</b>			
Soybeans per bushel	5.85	5.72	5.64
Wheat, Winter per bushel	3.24	3.30	3.59
Corn per bushel	2.17	-	2.30
Hay, Alfalfa per ton	46.72	-	-
Hay, Mixed per ton	14.70	-	-
Straw per ton	22.73	-	-
Haylage, Mixed per ton	30.29	-	-

Table 10

Farm Income Statement  
**Michigan Dairy, All Sizes, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	141	36	31
Cash Farm Income			
Beans, Navy	227	-	1,031
Celery	42	-	189
Corn	8,273	4,425	17,529
Corn Silage	1,020	110	3,392
Hay, Alfalfa	331	654	583
Hay, Mixed	988	885	2,083
Haylage, Alfalfa	119	-	332
Haylage, Mixed	728	-	1,993
Oats	159	-	-
Soybeans	18,609	9,885	35,808
Speltz	870	-	3,958
Straw	101	116	289
Sugar Beets	2,926	-	12,674
Wheat, Winter	5,449	4,189	10,261
Miscellaneous crop income	101	103	22
Beef, Finish Beef Calves	496	-	-
Dairy, Milk	543,847	362,439	614,945
Dairy, Dairy Calves	4,957	3,088	5,577
Dairy Heifers (for sale)	1,938	752	4,651
Dairy Replacement Heifers	376	393	779
Dairy Steers	6,496	5,198	9,545
Cull breeding livestock	27,885	16,761	28,865
Misc. livestock income	3,652	1,451	4,309
Direct & CC govt payments	1,552	642	1,195
Other government payments	39,328	34,607	45,802
Custom work income	3,255	259	5,231
Patronage dividends, cash	7,081	5,136	9,835
Insurance income	4,932	1,017	16,499
Cash from hedging accts	477	-	2,170
Contract livestock income	979	-	-
Other farm income	7,852	5,704	9,354
Gross Cash Farm Income	695,048	457,813	848,899

Table 10, (continued)

## Farm Income Statement

## Michigan Dairy, All Sizes, 2003

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

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	141	36	31
Cash Farm Expense			
Seed	14,731	7,555	20,994
Fertilizer	17,722	11,470	22,226
Crop chemicals	11,446	8,073	15,567
Crop insurance	727	472	1,722
Drying fuel	308	350	367
Irrigation energy	108	262	5
Crop custom hire	1,710	1,931	2,187
Crop miscellaneous	1,351	795	1,051
Feeder livestock purchase	2,497	17	1,358
Purchased feed	151,643	121,148	170,909
Breeding fees	5,470	3,348	5,830
Veterinary	20,095	13,814	22,285
BST	1,382	1,362	1,041
Livestock supplies	28,227	19,388	31,397
DHIA	517	596	662
Livestock leases	511	1,178	616
Livestock utilities	107	168	-
Livestock hauling and trucking	6,688	5,144	9,263
Marketing	20,063	15,302	18,590
Bedding	593	125	597
Livestock miscellaneous	77	-	159
Interest	30,011	23,649	31,854
Packaging and supplies	878	58	2,261
Fuel & oil	17,697	12,774	21,615
Repairs	36,463	25,537	46,058
Custom hire	20,934	13,464	22,801
Hired labor	106,357	66,745	119,303
Land rent	24,607	15,414	39,149
Machinery & bldg leases	7,314	5,324	13,086
Real estate taxes	7,849	6,226	8,545
Personal property taxes	331	118	458
Farm insurance	11,021	7,992	10,514
Utilities	15,180	10,812	16,886
Hauling and trucking	550	-	1,986
Dues & professional fees	4,599	3,845	4,519
Hedging account deposits	378	-	1,746
Miscellaneous	13,968	9,358	8,624
Total cash expense	584,107	413,813	676,229
Net cash farm income	110,941	44,000	172,669
Inventory Changes			
Crops and feed	2,687	-11,906	7,639
Market livestock	118	-421	665
Accounts receivable	2,123	1,161	-4,672
Prepaid expenses and supplies	-607	976	3,611
Accounts payable	-2,125	-8,907	-1,559
Total inventory change	2,197	-19,097	5,684
Net operating profit	113,138	24,903	178,354
Depreciation and Other Capital Adjustments			
Breeding livestock	8,586	-6,183	19,384
Machinery and equipment	-43,385	-28,280	-48,400
Buildings and improvements	-22,358	-9,810	-30,851
Other farm capital	1,537	825	1,066
Total depr. and other capital adj	-55,619	-43,448	-58,801
Net farm income	57,519	-18,545	119,553

Table 11

Inventory Changes  
**Michigan Dairy, All Sizes, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	141	35	36
Net cash farm income	110,941	43,305	167,329
Crops and Feed			
Ending inventory	138,926	82,197	169,485
Beginning inventory	136,239	94,643	160,786
Inventory change	2,687	-12,446	8,699
Market Livestock			
Ending inventory	11,713	7,463	19,156
Beginning inventory	11,594	8,016	18,304
Inventory change	118	-554	852
Accts Receivable & Other Current Assets			
Ending inventory	36,946	24,939	49,826
Beginning inventory	34,823	23,617	54,331
Inventory change	2,123	1,322	-4,505
Prepaid Expenses and Supplies			
Ending inventory	20,696	4,451	23,539
Beginning inventory	21,303	3,447	21,245
Inventory change	-607	1,004	2,294
Accounts Payable & Accrued Expenses			
Beginning inventory	17,977	15,259	11,090
Ending inventory	20,101	23,457	11,517
Inventory change	-2,125	-8,198	-428
Total inventory change	2,197	-18,873	6,913
Net operating profit	113,138	24,432	174,242

Table 12                      Depreciation and Other Capital Adjustments  
**Michigan Dairy, All Sizes, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	141	35	36
Net operating profit	113,138	24,432	174,242
Breeding Livestock			
Ending inventory	416,914	285,559	440,555
Capital sales	7,263	7,439	4,045
Beginning inventory	395,635	289,392	412,659
Capital purchases	19,955	9,026	14,614
Depreciation, capital adjust.	8,586	-5,421	17,328
Machinery and Equipment			
Ending inventory	147,789	105,754	196,052
Capital sales	2,098	257	2,547
Beginning inventory	153,470	106,766	199,312
Capital purchases	39,802	26,797	48,197
Depreciation, capital adjust.	-43,385	-27,552	-48,910
Buildings and Improvements			
Ending inventory	157,351	100,823	199,748
Capital sales	1,333	-	-
Beginning inventory	159,614	92,920	204,273
Capital purchases	21,427	17,878	25,365
Depreciation, capital adjust.	-22,358	-9,975	-29,890
Other Capital Assets			
Ending inventory	43,422	21,354	37,402
Capital sales	8,324	5,427	3,553
Beginning inventory	40,756	23,192	34,024
Capital purchases	9,453	2,840	5,510
Depreciation, capital adjust.	1,537	748	1,421
Total depreciation, capital adj.	-55,619	-42,200	-60,050
Net farm income	57,519	-17,768	114,192

Table 13

Profitability Measures  
**Michigan Dairy, All Sizes, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	141	35	36
Profitability (assets valued at cost)			
Net farm income	57,519	-17,768	114,192
Labor and management earnings	21,455	-37,786	71,925
Rate of return on assets	2.6 %	-6.0 %	7.1 %
Rate of return on equity	0.2 %	-21.8 %	9.3 %
Operating profit margin	5.6 %	-15.0 %	14.2 %
Asset turnover rate	46.1 %	39.9 %	49.7 %
Interest on farm net worth	36,064	20,018	42,267
Farm interest expense	30,074	23,715	31,434
Value of operator lbr and mgmt.	56,362	53,425	49,071
Return on farm assets	31,230	-47,477	96,555
Average farm assets	1,202,537	795,064	1,368,445
Return on farm equity	1,156	-71,192	65,120
Average farm equity	592,966	326,181	703,476
Value of farm production	554,424	317,300	680,439
	Avg. Of All Farms	Low 25%	High 25%
Number of farms	141	35	36
Profitability (assets valued at market)			
Net farm income	108,945	-14,823	221,461
Labor and management earnings	31,123	-66,024	144,098
Rate of return on assets	4.3 %	-3.3 %	10.4 %
Rate of return on equity	4.1 %	-8.0 %	13.4 %
Operating profit margin	14.9 %	-14.0 %	30.0 %
Asset turnover rate	29.0 %	23.9 %	34.8 %
Interest on farm net worth	77,822	51,201	77,363
Farm interest expense	30,074	23,715	31,434
Value of operator lbr and mgmt.	56,362	53,425	49,071
Return on farm assets	82,656	-44,533	203,824
Average farm assets	1,915,091	1,329,502	1,954,355
Return on farm equity	52,582	-68,248	172,390
Average farm equity	1,297,036	853,343	1,289,386
Value of farm production	554,424	317,300	680,439

Table 14

Liquidity Measures  
**Michigan Dairy, All Sizes, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	141	35	36
Liquidity (cash)			
Net cash farm income	110,941	43,305	167,329
Net nonfarm income	9,808	7,947	8,654
Family living and taxes	56,120	33,363	59,909
Real estate principal payments	16,004	13,819	11,644
Cash available for interm. debt	48,625	4,070	104,430
Average intermediate debt	194,543	126,131	250,528
Years to turnover interm. debt	4.0	31.0	2.4
Expense as a % of income	84 %	90 %	80 %
Interest as a % of income	4 %	5 %	4 %
Liquidity (accrual)			
Total accrual farm income	699,976	443,842	834,546
Total accrual operating expense	586,838	419,410	660,305
Net accrual operating income	113,138	24,432	174,242
Net nonfarm income	9,808	7,947	8,654
Family living and taxes	56,120	33,363	59,909
Real estate principal payments	16,004	13,819	11,644
Available for intermediate debt	50,822	-14,803	111,343
Average intermediate debt	194,543	126,131	250,528
Years to turnover interm. debt	3.8	**	2.3
Expense as a % of income	84 %	94 %	79 %
Interest as a % of income	4 %	5 %	4 %

\*\* Income insufficient to meet debt servicing requirements



Table 15

Balance Sheet at Cost Values  
**Michigan Dairy, All Sizes, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms		Low 25%		High 25%	
	Beginning	Ending	Beginning	Ending	Beginning	Ending
Number of farms	141		35		36	
<b>Assets</b>						
<b>Current Farm Assets</b>						
Cash and checking balance	19,989	20,535	19,831	16,282	21,652	29,510
Prepaid expenses & supplies	21,303	20,696	3,447	4,451	21,245	23,539
Growing crops	8,112	8,947	9,806	9,411	8,658	8,668
Accounts receivable	24,267	27,151	13,562	15,392	37,549	39,322
Hedging accounts	449	473	0	0	1,529	1,836
Crops held for sale or feed	136,239	138,715	94,643	82,197	160,786	168,655
Crops under government loan	0	212	0	0	0	830
Market livestock held for sale	11,594	11,713	8,016	7,463	18,304	19,156
Other current assets	1,995	375	249	135	6,595	0
<b>Total current farm assets</b>	<b>223,949</b>	<b>228,817</b>	<b>149,554</b>	<b>135,331</b>	<b>276,317</b>	<b>291,516</b>
<b>Intermediate Farm Assets</b>						
Breeding livestock	395,635	416,914	289,392	285,559	412,659	440,555
Machinery and equipment	153,227	147,338	106,603	105,458	198,769	194,857
Titled vehicles	244	452	163	296	543	1,195
Other intermediate assets	31,058	30,177	17,379	14,940	29,505	32,074
<b>Total intermediate farm assets</b>	<b>580,163</b>	<b>594,879</b>	<b>413,537</b>	<b>406,253</b>	<b>641,476</b>	<b>668,681</b>
<b>Long Term Farm Assets</b>						
Farm land	212,390	224,968	134,364	145,119	212,370	232,662
Buildings and improvements	159,614	157,351	92,920	100,823	204,273	199,748
Other long-term assets	9,698	13,246	5,813	6,414	4,519	5,328
<b>Total long-term farm assets</b>	<b>381,702</b>	<b>395,564</b>	<b>233,097</b>	<b>252,356</b>	<b>421,161</b>	<b>437,739</b>
<b>Total Farm Assets</b>	<b>1,185,814</b>	<b>1,219,260</b>	<b>796,189</b>	<b>793,940</b>	<b>1,338,955</b>	<b>1,397,936</b>
<b>Total Nonfarm Assets</b>	<b>72,879</b>	<b>80,871</b>	<b>36,038</b>	<b>39,419</b>	<b>95,567</b>	<b>106,678</b>
<b>Total Assets</b>	<b>1,258,693</b>	<b>1,300,131</b>	<b>832,227</b>	<b>833,358</b>	<b>1,434,521</b>	<b>1,504,614</b>
<b>Liabilities</b>						
<b>Current Farm Liabilities</b>						
Accrued interest	719	782	730	1,156	434	833
Accounts payable	17,257	19,319	14,529	22,302	10,656	10,685
Current notes	70,368	71,780	60,063	56,497	68,160	77,037
Government crop loans	0	212	0	0	0	830
Principal due on term debt	51,859	61,857	39,761	40,511	49,814	76,589
<b>Total current farm liabilities</b>	<b>140,204</b>	<b>153,950</b>	<b>115,083</b>	<b>120,465</b>	<b>129,064</b>	<b>165,973</b>
<b>Total intermediate farm liabs</b>	<b>160,943</b>	<b>148,661</b>	<b>110,854</b>	<b>90,120</b>	<b>217,207</b>	<b>185,898</b>
<b>Total long term farm liabilities</b>	<b>297,013</b>	<b>318,372</b>	<b>223,150</b>	<b>278,095</b>	<b>320,240</b>	<b>311,555</b>
<b>Total farm liabilities</b>	<b>598,160</b>	<b>620,982</b>	<b>449,087</b>	<b>488,679</b>	<b>666,511</b>	<b>663,427</b>
<b>Total nonfarm liabilities</b>	<b>6,368</b>	<b>6,873</b>	<b>6,229</b>	<b>8,769</b>	<b>15,439</b>	<b>15,011</b>
<b>Total liabilities</b>	<b>604,528</b>	<b>627,855</b>	<b>455,317</b>	<b>497,449</b>	<b>681,950</b>	<b>678,437</b>
<b>Net worth (farm and nonfarm)</b>	<b>654,165</b>	<b>672,276</b>	<b>376,910</b>	<b>335,910</b>	<b>752,572</b>	<b>826,177</b>
<b>Net worth change</b>		<b>18,111</b>		<b>-41,001</b>		<b>73,605</b>
<b>Ratio Analysis</b>						
Current farm liabilities / assets	63 %	67 %	77 %	89 %	47 %	57 %
Curr. & interm farm liab. / assets	37 %	37 %	40 %	39 %	38 %	37 %
Long term farm liab. / assets	78 %	80 %	96 %	110 %	76 %	71 %
Total debt to asset ratio	48 %	48 %	55 %	60 %	48 %	45 %

Table 16

Balance Sheet at Market Values  
**Michigan Dairy, All Sizes, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms		Low 25%		High 25%	
	141 Beginning	Ending	35 Beginning	Ending	36 Beginning	Ending
Number of farms						
<b>Assets</b>						
<b>Current Farm Assets</b>						
Cash and checking balance	19,989	20,535	19,831	16,282	21,652	29,510
Prepaid expenses & supplies	21,303	20,696	3,447	4,451	21,245	23,539
Growing crops	8,112	8,947	9,806	9,411	8,658	8,668
Accounts receivable	24,267	27,151	13,562	15,392	37,549	39,322
Hedging accounts	449	473	0	0	1,529	1,836
Crops held for sale or feed	136,239	138,715	94,643	82,197	160,786	168,655
Crops under government loan	0	212	0	0	0	830
Market livestock held for sale	11,594	11,713	8,016	7,463	18,304	19,156
Other current assets	1,995	375	249	135	6,595	0
<b>Total current farm assets</b>	<b>223,949</b>	<b>228,817</b>	<b>149,554</b>	<b>135,331</b>	<b>276,317</b>	<b>291,516</b>
<b>Intermediate Farm Assets</b>						
Breeding livestock	399,782	422,770	289,864	288,469	422,050	452,067
Machinery and equipment	322,085	332,912	253,808	251,138	397,543	415,023
Titled vehicles	880	1,703	457	623	1,226	2,025
Other intermediate assets	33,150	32,527	17,690	15,251	29,533	32,895
<b>Total intermediate farm assets</b>	<b>755,897</b>	<b>789,912</b>	<b>561,819</b>	<b>555,481</b>	<b>850,353</b>	<b>902,010</b>
<b>Long Term Farm Assets</b>						
Farm land	643,895	675,650	463,646	477,758	518,148	589,690
Buildings and improvements	235,355	245,993	148,465	154,706	221,753	248,926
Other long-term assets	13,553	17,160	5,860	6,386	4,658	5,338
<b>Total long-term farm assets</b>	<b>892,803</b>	<b>938,803</b>	<b>617,971</b>	<b>638,849</b>	<b>744,559</b>	<b>843,954</b>
<b>Total Farm Assets</b>	<b>1,872,650</b>	<b>1,957,532</b>	<b>1,329,344</b>	<b>1,329,661</b>	<b>1,871,229</b>	<b>2,037,480</b>
<b>Total Nonfarm Assets</b>	<b>138,370</b>	<b>157,436</b>	<b>112,722</b>	<b>123,599</b>	<b>149,376</b>	<b>158,490</b>
<b>Total Assets</b>	<b>2,011,020</b>	<b>2,114,968</b>	<b>1,442,066</b>	<b>1,453,259</b>	<b>2,020,606</b>	<b>2,195,970</b>
<b>Liabilities</b>						
<b>Current Farm Liabilities</b>						
Accrued interest	719	782	730	1,156	434	833
Accounts payable	17,257	19,319	14,529	22,302	10,656	10,685
Current notes	70,368	71,780	60,063	56,497	68,160	77,037
Government crop loans	0	212	0	0	0	830
Principal due on term debt	51,859	61,857	39,761	40,511	49,814	76,589
<b>Total current farm liabilities</b>	<b>140,204</b>	<b>153,950</b>	<b>115,083</b>	<b>120,465</b>	<b>129,064</b>	<b>165,973</b>
<b>Total intermediate farm liabs</b>	<b>160,943</b>	<b>148,661</b>	<b>110,854</b>	<b>90,120</b>	<b>217,207</b>	<b>185,898</b>
<b>Total long term farm liabilities</b>	<b>297,013</b>	<b>318,372</b>	<b>223,150</b>	<b>278,095</b>	<b>320,240</b>	<b>311,555</b>
<b>Total farm liabilities</b>	<b>598,160</b>	<b>620,982</b>	<b>449,087</b>	<b>488,679</b>	<b>666,511</b>	<b>663,427</b>
<b>Total nonfarm liabilities</b>	<b>6,368</b>	<b>6,873</b>	<b>6,229</b>	<b>8,769</b>	<b>15,439</b>	<b>15,011</b>
<b>Total liabs excluding deferreds</b>	<b>604,528</b>	<b>627,855</b>	<b>455,317</b>	<b>497,449</b>	<b>681,950</b>	<b>678,437</b>
<b>Total deferred liabilities</b>	<b>8,802</b>	<b>8,744</b>	<b>8,865</b>	<b>8,207</b>	<b>0</b>	<b>0</b>
<b>Total liabilities</b>	<b>613,330</b>	<b>636,599</b>	<b>464,182</b>	<b>505,655</b>	<b>681,950</b>	<b>678,437</b>
<b>Retained earnings</b>	<b>654,165</b>	<b>672,276</b>	<b>376,910</b>	<b>335,910</b>	<b>752,572</b>	<b>826,177</b>
<b>Market valuation equity</b>	<b>743,525</b>	<b>806,094</b>	<b>600,974</b>	<b>611,694</b>	<b>586,084</b>	<b>691,356</b>
<b>Net worth (farm and nonfarm)</b>	<b>1,397,689</b>	<b>1,478,370</b>	<b>977,885</b>	<b>947,604</b>	<b>1,338,656</b>	<b>1,517,532</b>
<b>Net worth excluding deferreds</b>	<b>1,406,491</b>	<b>1,487,113</b>	<b>986,750</b>	<b>955,811</b>	<b>1,338,656</b>	<b>1,517,532</b>
<b>Net worth change</b>		<b>80,680</b>		<b>-30,280</b>		<b>178,876</b>
<b>Ratio Analysis</b>						
Current farm liabilities / assets	63 %	67 %	77 %	89 %	47 %	57 %
Curr. & interm farm liab. / assets	31 %	30 %	32 %	30 %	31 %	29 %
Long term farm liab. / assets	33 %	34 %	36 %	44 %	43 %	37 %
Total debt to asset ratio	30 %	30 %	32 %	35 %	34 %	31 %
Debt to assets excl deferreds	30 %	30 %	32 %	34 %	34 %	31 %

Table 17

Statement Of Cash Flows  
**Michigan Dairy, All Sizes, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	141	35	36
Beginning cash (farm & nonfarm)	20,195	19,831	22,430
<b>Cash From Operating Activities</b>			
Gross cash farm income	695,048	455,521	829,500
Net nonfarm income	9,808	7,947	8,654
Total cash farm expense	-584,107	-412,216	-662,171
Apparent family living expense	-52,519	-31,000	-56,220
Income and social security tax	-3,602	-2,363	-3,690
Cash from operations	64,629	17,889	116,074
<b>Cash From Investing Activities</b>			
Sale of breeding livestock	7,263	7,439	4,045
Sale of machinery & equipment	2,098	257	2,547
Sale of titled vehicles	-	-	-
Sale of farm land	298	-	1,111
Sale of farm buildings	1,333	-	-
Sale of other farm assets	8,324	5,427	3,553
Sale of nonfarm assets	1,378	-	10
Purchase of breeding livestock	-19,955	-9,026	-14,614
Purchase of machinery & equip.	-39,701	-26,797	-48,197
Purchase of titled vehicles	-101	-	-
Purchase of farm land	-11,957	-10,945	-16,907
Purchase of farm buildings	-21,427	-17,878	-25,365
Purchase of other farm assets	-9,453	-2,840	-5,510
Purchase of nonfarm assets	-4,023	-3,223	-3,218
Cash from investing activities	-85,925	-57,587	-102,545
<b>Cash From Financing Activities</b>			
Money borrowed	161,151	164,483	143,854
Cash gifts and inheritances	3,240	2,631	2,020
Principal payments	-139,569	-130,526	-146,334
Dividends paid	-	-	-
Gifts given	-2,714	-439	-4,168
Cash from financing activities	22,109	36,150	-4,628
Net change in cash balance	812	-3,549	8,901
Ending cash (farm & nonfarm)	21,007	16,282	31,331

Table 18

Financial Standards Measures  
**Michigan Dairy, All Sizes, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	141	35	36
Liquidity			
Current ratio	1.49	1.12	1.76
Working capital	74,867	14,866	125,542
Solvency (market)			
Farm debt to asset ratio	32 %	37 %	33 %
Farm equity to asset ratio	68 %	63 %	67 %
Farm debt to equity ratio	47 %	59 %	48 %
Profitability (cost)			
Rate of return on farm assets	2.6 %	-6.0 %	7.1 %
Rate of return on farm equity	0.2 %	-21.8 %	9.3 %
Operating profit margin	5.6 %	-15.0 %	14.2 %
Net farm income	57,519	-17,768	114,192
Repayment Capacity			
Term debt coverage ratio	112 %	36 %	172 %
Capital replacement margin	9,983	-40,735	62,329
Efficiency			
Asset turnover rate (cost)	46.1 %	39.9 %	49.7 %
Operating expense ratio	79.5 %	89.2 %	75.4 %
Depreciation expense ratio	7.9 %	9.5 %	7.2 %
Interest expense ratio	4.3 %	5.3 %	3.8 %
Net farm income ratio	8.2 %	-4.0 %	13.7 %

Table 19

Operator and Labor Information  
**Michigan Dairy, All Sizes, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	141	35	36
Operator Information			
Average number of operators	1.6	1.5	1.5
Average age of operators	50.8	54.5	46.8
Average number of years farming	27.0	30.8	23.3
Results Per Operator			
Working capital	47,658	10,006	83,695
Total assets (market)	1,346,323	978,155	1,463,980
Total liabilities	405,239	340,345	452,292
Net worth (market)	941,084	637,811	1,011,688
Net worth excl deferred liabs	946,650	643,334	1,011,688
Gross farm income	445,583	298,740	556,364
Total farm expense	408,969	310,699	480,237
Net farm income	36,615	-11,959	76,128
Net nonfarm income	6,244	5,349	5,769
Family living & tax withdrawals	35,724	22,456	39,940
Total acres owned	275.1	222.4	263.7
Total crop acres	470.3	361.1	605.7
Crop acres owned	256.3	165.6	325.3
Crop acres cash rented	212.3	195.4	278.9
Crop acres share rented	1.8	-	1.5
Total pasture acres	2.8	2.9	2.2
Labor Analysis			
Number of farms	138	35	36
Total unpaid labor hours	4,757	4,527	4,449
Total hired labor hours	8,059	5,147	10,115
Total labor hours per farm	12,816	9,674	14,564
Unpaid hours per operator	3,046	3,047	2,966
Value of farm production / hour	42.72	32.80	46.72
Net farm income / unpaid hour	11.88	-3.92	25.67
Partnerships			
Number of farms	44	9	12
Number of operators	2.2	2.3	2.2
Owner withdrawals per farm	-	-	-
Withdrawals per operator	-	-	-

Table 20

Financial Summary  
**Michigan Dairy, All Sizes, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	141	35	36
<b>Income Statement</b>			
Gross cash farm income	695,048	455,521	829,500
Total cash farm expense	584,107	412,216	662,171
Net cash farm income	110,941	43,305	167,329
Inventory change	2,197	-18,873	6,913
Depreciation and capital adjust	-55,619	-42,200	-60,050
Net farm income	57,519	-17,768	114,192
<b>Profitability (cost)</b>			
Labor and management earnings	21,455	-37,786	71,925
Rate of return on assets	2.6 %	-6.0 %	7.1 %
Rate of return on equity	0.2 %	-21.8 %	9.3 %
Operating profit margin	5.6 %	-15.0 %	14.2 %
Asset turnover rate	46.1 %	39.9 %	49.7 %
<b>Profitability (market)</b>			
Labor and management earnings	31,123	-66,024	144,098
Rate of return on assets	4.3 %	-3.3 %	10.4 %
Rate of return on equity	4.1 %	-8.0 %	13.4 %
Operating profit margin	14.9 %	-14.0 %	30.0 %
Asset turnover rate	29.0 %	23.9 %	34.8 %
<b>Liquidity</b>			
Ending current ratio	1.49	1.12	1.76
Ending working capital	74,867	14,866	125,542
End working capital to gross inc	10.8 %	3.3 %	15.1 %
Term debt coverage ratio	112.0 %	36.0 %	172.1 %
Expense as a percent of income	83.8 %	94.5 %	79.1 %
Interest as a percent of income	4.3 %	5.3 %	3.8 %
<b>Solvency (cost)</b>			
Number of farms	141	35	36
Ending farm assets	1,219,260	793,940	1,397,936
Ending farm liabilities	620,982	488,679	663,427
Ending total assets	1,300,131	833,358	1,504,614
Ending total liabilities	627,855	497,449	678,437
Ending net worth	672,276	335,910	826,177
Net worth change	18,111	-41,001	73,605
Ending farm debt to asset ratio	51 %	62 %	47 %
Beg total debt to asset ratio	48 %	55 %	48 %
End total debt to asset ratio	48 %	60 %	45 %
<b>Solvency (market)</b>			
Number of farms	141	35	36
Ending farm assets	1,957,532	1,329,661	2,037,480
Ending farm liabilities	629,471	495,766	663,427
Ending total assets	2,114,968	1,453,259	2,195,970
Ending total liabilities	636,599	505,655	678,437
Ending net worth	1,478,370	947,604	1,517,532
Net worth change	80,680	-30,280	178,876
Ending farm debt to asset ratio	32 %	37 %	33 %
Beg total debt to asset ratio	30 %	32 %	34 %
End total debt to asset ratio	30 %	35 %	31 %
<b>Nonfarm Information</b>			
Net nonfarm income	9,808	7,947	8,654
Farms reporting living expenses	7	1	1
Total family living expense	53,722	-	-
Total living, invest, & capital	67,457	-	-
<b>Crop Acres</b>			
Total acres owned	452	350	427
Total crop acres	771	647	949
Total crop acres owned	403	246	535
Total crop acres cash rented	391	364	570
Total crop acres share rented	3	-	2



Table 22

Farm Income Statement  
**Michigan Dairy, 22-99 Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	40	9	9
Cash Farm Income			
Corn	10,346	7,172	14,975
Corn Silage	149	439	-
Hay, Alfalfa	256	848	10
Hay, Mixed	657	2,817	-
Haylage, Alfalfa	119	-	-
Soybeans	15,704	7,268	31,390
Sugar Beets	2,754	-	12,238
Wheat, Winter	3,516	2,426	2,314
Miscellaneous crop income	11	-	-
Dairy, Milk	159,279	170,755	133,551
Dairy, Dairy Calves	1,324	467	1,597
Dairy Heifers (for sale)	886	533	989
Dairy Steers	3,627	4,983	1,764
Cull breeding livestock	10,590	11,053	13,839
Misc. livestock income	4,004	4,904	3,923
Direct & CC govt payments	1,710	1,096	-
Other government payments	23,444	25,321	23,067
Custom work income	2,272	388	304
Patronage dividends, cash	1,575	1,062	1,135
Insurance income	1,111	-	9
Contract livestock income	3,450	-	-
Other farm income	4,475	11,836	1,757
Gross Cash Farm Income	251,260	253,369	242,859



Table 22, continued

Farm Income Statement  
**Michigan Dairy, 22-99 Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	40	9	9
<b>Cash Farm Expense</b>			
Seed	8,907	5,578	11,945
Fertilizer	10,149	9,484	14,894
Crop chemicals	7,631	9,038	10,106
Crop insurance	145	11	307
Drying fuel	40	-	178
Crop packaging and supplies	331	-	-
Crop custom hire	859	2,175	172
Crop miscellaneous	462	193	-
Feeder livestock purchase	225	14	985
Purchased feed	45,818	56,406	39,605
Breeding fees	1,518	2,746	694
Veterinary	5,016	6,736	2,724
Livestock supplies	8,828	10,860	8,612
DHIA	389	532	480
Livestock utilities	377	-	431
Livestock hauling and trucking	3,686	5,698	3,871
Marketing	5,879	5,588	3,147
Bedding	132	473	-
Livestock miscellaneous	148	-	-
Interest	15,269	14,383	7,298
Packaging and supplies	911	-	1,433
Fuel & oil	7,939	10,426	7,743
Repairs	16,478	20,643	12,348
Custom hire	4,641	5,233	1,292
Hired labor	21,469	25,289	25,303
Land rent	11,088	10,225	20,796
Machinery & bldg leases	2,016	1,730	286
Real estate taxes	5,010	6,118	4,026
Farm insurance	6,204	6,404	4,455
Utilities	6,385	6,709	5,393
Hauling and trucking	450	-	1,008
Dues & professional fees	2,543	3,126	2,796
Hedging account deposits	64	-	285
Miscellaneous	6,337	6,335	2,418
Total cash expense	207,341	232,151	195,030
Net cash farm income	43,918	21,218	47,829
<b>Inventory Changes</b>			
Crops and feed	-5,100	-7,941	6,545
Market livestock	-738	-3,166	-9
Accounts receivable	-395	-1,474	-54
Prepaid expenses and supplies	-106	278	2,268
Accounts payable	133	751	22
Total inventory change	-6,206	-11,552	8,772
Net operating profit	37,712	9,667	56,601
<b>Depreciation and Other Capital Adjustments</b>			
Breeding livestock	-6,448	-3,700	-3,838
Machinery and equipment	-18,473	-18,834	-14,262
Buildings and improvements	-5,044	-4,490	-3,006
Other farm capital	9,437	733	166
Total depr. and other capital adj	-20,527	-26,291	-20,940
Net farm income	17,185	-16,625	35,661

Table 23

Inventory Changes  
**Michigan Dairy, 22-99 Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	40	9	11
Net cash farm income	43,918	21,218	56,455
Crops and Feed			
Ending inventory	60,661	62,207	83,363
Beginning inventory	65,762	70,148	76,434
Inventory change	-5,100	-7,941	6,929
Market Livestock			
Ending inventory	6,519	6,607	12,674
Beginning inventory	7,257	9,772	11,150
Inventory change	-738	-3,166	1,525
Accts Receivable & Other Current Assets			
Ending inventory	10,795	14,256	9,134
Beginning inventory	11,190	15,730	8,559
Inventory change	-395	-1,474	575
Prepaid Expenses and Supplies			
Ending inventory	6,408	756	13,236
Beginning inventory	6,514	478	11,941
Inventory change	-106	278	1,296
Accounts Payable & Accrued Expenses			
Beginning inventory	4,542	1,726	450
Ending inventory	4,409	975	432
Inventory change	133	751	18
Total inventory change	-6,206	-11,552	10,343
Net operating profit	37,712	9,667	66,798

Table 24

Depreciation and Other Capital Adjustments  
**Michigan Dairy, 22-99 Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	40	9	11
Net operating profit	37,712	9,667	66,798
Breeding Livestock			
Ending inventory	146,652	141,999	134,407
Capital sales	11,021	13,418	3,250
Beginning inventory	154,258	156,820	136,323
Capital purchases	9,863	2,296	4,635
Depreciation, capital adjust.	-6,448	-3,700	-3,302
Machinery and Equipment			
Ending inventory	55,766	85,711	45,751
Capital sales	784	-	694
Beginning inventory	55,232	77,382	52,598
Capital purchases	19,791	27,163	11,144
Depreciation, capital adjust.	-18,473	-18,834	-17,298
Buildings and Improvements			
Ending inventory	55,751	44,841	52,141
Capital sales	-	-	-
Beginning inventory	55,823	32,086	54,009
Capital purchases	4,972	17,245	2,457
Depreciation, capital adjust.	-5,044	-4,490	-4,324
Other Capital Assets			
Ending inventory	22,368	10,795	14,224
Capital sales	1,183	78	2,147
Beginning inventory	10,647	9,833	15,394
Capital purchases	3,466	308	841
Depreciation, capital adjust.	9,437	733	136
Total depreciation, capital adj.	-20,527	-26,291	-24,788
Net farm income	17,185	-16,625	42,009

Table 25

Profitability Measures  
**Michigan Dairy, 22-99 Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	40	9	11
Profitability (assets valued at cost)			
Net farm income	17,185	-16,625	42,009
Labor and management earnings	3,921	-26,914	23,313
Rate of return on assets	-1.3 %	-9.6 %	3.1 %
Rate of return on equity	-10.3 %	-35.3 %	2.4 %
Operating profit margin	-3.6 %	-24.9 %	6.4 %
Asset turnover rate	37.7 %	38.5 %	48.4 %
Interest on farm net worth	13,264	10,290	18,697
Farm interest expense	14,406	14,189	7,917
Value of operator lbr and mgmt.	38,456	42,496	34,475
Return on farm assets	-6,865	-44,932	15,452
Average farm assets	511,284	469,158	500,455
Return on farm equity	-21,271	-59,120	7,535
Average farm equity	206,418	167,587	311,613
Value of farm production	192,536	180,669	242,347
	Avg. Of All Farms	Low 25%	High 25%
Number of farms	40	9	11
Profitability (assets valued at market)			
Net farm income	39,181	-35,625	107,080
Labor and management earnings	-7,422	-82,233	59,621
Rate of return on assets	1.4 %	-5.9 %	8.2 %
Rate of return on equity	0.1 %	-10.1 %	9.2 %
Operating profit margin	7.9 %	-35.4 %	33.2 %
Asset turnover rate	17.8 %	16.8 %	24.7 %
Interest on farm net worth	46,603	46,608	47,459
Farm interest expense	14,406	14,189	7,917
Value of operator lbr and mgmt.	38,456	42,496	34,475
Return on farm assets	15,131	-63,932	80,523
Average farm assets	1,081,579	1,078,366	979,830
Return on farm equity	725	-78,121	72,605
Average farm equity	776,712	776,796	790,988
Value of farm production	192,536	180,669	242,347

Table 26

Liquidity Measures  
Michigan Dairy, 22-99 Cows, 2003  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	40	9	11
Liquidity (cash)			
Net cash farm income	43,918	21,218	56,455
Net nonfarm income	10,526	17,243	6,661
Family living and taxes	41,519	37,713	37,297
Real estate principal payments	8,610	11,211	5,591
Cash available for interm. debt	4,315	-10,462	20,228
Average intermediate debt	86,861	60,021	62,909
Years to turnover interm. debt	20.1	**	3.1
Expense as a % of income	83 %	92 %	80 %
Interest as a % of income	6 %	6 %	3 %
Liquidity (accrual)			
Total accrual farm income	245,026	240,789	290,182
Total accrual operating expense	207,314	231,122	223,384
Net accrual operating income	37,712	9,667	66,798
Net nonfarm income	10,526	17,243	6,661
Family living and taxes	41,519	37,713	37,297
Real estate principal payments	8,610	11,211	5,591
Available for intermediate debt	-1,891	-22,014	30,571
Average intermediate debt	86,861	60,021	62,909
Years to turnover interm. debt	**	**	2.1
Expense as a % of income	85 %	96 %	77 %
Interest as a % of income	6 %	6 %	3 %

\*\* Income insufficient to meet debt servicing requirements

Table 27

Balance Sheet at Cost Values  
**Michigan Dairy, 22-99 Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of		Low 25%		High 25%	
	All Farms					
Number of farms	40		9		11	
	Beginning	Ending	Beginning	Ending	Beginning	Ending
<b>Assets</b>						
<b>Current Farm Assets</b>						
Cash and checking balance	12,197	11,323	19,735	12,926	12,979	21,097
Prepaid expenses & supplies	6,514	6,408	478	756	11,941	13,236
Growing crops	5,014	5,532	7,480	7,557	2,997	3,433
Accounts receivable	5,522	4,954	8,059	6,508	5,562	5,701
Hedging accounts	0	0	0	0	0	0
Crops held for sale or feed	65,762	60,661	70,148	62,207	76,434	83,363
Crops under government loan	0	0	0	0	0	0
Market livestock held for sale	7,257	6,519	9,772	6,607	11,150	12,674
Other current assets	654	308	191	191	0	0
<b>Total current farm assets</b>	<b>102,919</b>	<b>95,706</b>	<b>115,863</b>	<b>96,752</b>	<b>121,062</b>	<b>139,505</b>
<b>Intermediate Farm Assets</b>						
Breeding livestock	154,258	146,652	156,820	141,999	136,323	134,407
Machinery and equipment	55,112	55,261	77,382	85,711	52,598	44,205
Titled vehicles	120	505	0	0	0	1,545
Other intermediate assets	6,579	6,854	4,117	4,375	9,851	9,364
<b>Total intermediate farm assets</b>	<b>216,070</b>	<b>209,273</b>	<b>238,319</b>	<b>232,084</b>	<b>198,772</b>	<b>189,521</b>
<b>Long Term Farm Assets</b>						
Farm land	132,872	134,575	79,553	86,679	117,749	117,749
Buildings and improvements	55,823	55,751	32,086	44,841	54,009	52,141
Other long-term assets	4,068	15,514	5,716	6,421	5,543	4,860
<b>Total long-term farm assets</b>	<b>192,762</b>	<b>205,839</b>	<b>117,355</b>	<b>137,940</b>	<b>177,301</b>	<b>174,750</b>
<b>Total Farm Assets</b>	<b>511,751</b>	<b>510,818</b>	<b>471,538</b>	<b>466,777</b>	<b>497,134</b>	<b>503,776</b>
<b>Total Nonfarm Assets</b>	<b>43,159</b>	<b>50,049</b>	<b>33,172</b>	<b>44,897</b>	<b>63,556</b>	<b>69,669</b>
<b>Total Assets</b>	<b>554,909</b>	<b>560,867</b>	<b>504,710</b>	<b>511,674</b>	<b>560,690</b>	<b>573,445</b>
<b>Liabilities</b>						
<b>Current Farm Liabilities</b>						
Accrued interest	1,205	343	197	3	57	99
Accounts payable	3,337	4,067	1,529	972	392	333
Current notes	29,528	27,375	50,230	51,437	22,407	17,868
Government crop loans	0	0	0	0	0	0
Principal due on term debt	22,241	25,322	24,634	21,235	20,188	18,558
<b>Total current farm liabilities</b>	<b>56,311</b>	<b>57,107</b>	<b>76,590</b>	<b>73,648</b>	<b>43,045</b>	<b>36,858</b>
<b>Total intermediate farm liabs</b>	<b>72,078</b>	<b>72,129</b>	<b>43,638</b>	<b>48,123</b>	<b>44,593</b>	<b>53,561</b>
<b>Total long term farm liabilities</b>	<b>168,635</b>	<b>183,473</b>	<b>163,776</b>	<b>197,367</b>	<b>101,239</b>	<b>98,388</b>
<b>Total farm liabilities</b>	<b>297,025</b>	<b>312,709</b>	<b>284,003</b>	<b>319,138</b>	<b>188,877</b>	<b>188,807</b>
<b>Total nonfarm liabilities</b>	<b>1,381</b>	<b>1,392</b>	<b>3,246</b>	<b>2,288</b>	<b>1,450</b>	<b>1,295</b>
<b>Total liabilities</b>	<b>298,406</b>	<b>314,100</b>	<b>287,250</b>	<b>321,425</b>	<b>190,327</b>	<b>190,102</b>
<b>Net worth (farm and nonfarm)</b>	<b>256,504</b>	<b>246,766</b>	<b>217,460</b>	<b>190,248</b>	<b>370,363</b>	<b>383,343</b>
<b>Net worth change</b>		<b>-9,737</b>		<b>-27,212</b>		<b>12,980</b>
<b>Ratio Analysis</b>						
Current farm liabilities / assets	55 %	60 %	66 %	76 %	36 %	26 %
Curr. & interm farm liab. / assets	40 %	42 %	34 %	37 %	27 %	27 %
Long term farm liab. / assets	87 %	89 %	140 %	143 %	57 %	56 %
Total debt to asset ratio	54 %	56 %	57 %	63 %	34 %	33 %

Table 28

Balance Sheet at Market Values  
**Michigan Dairy, 22-99 Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms		Low 25%		High 25%	
	40 Beginning	Ending	9 Beginning	Ending	11 Beginning	Ending
Number of farms						
<b>Assets</b>						
<b>Current Farm Assets</b>						
Cash and checking balance	12,197	11,323	19,735	12,926	12,979	21,097
Prepaid expenses & supplies	6,514	6,408	478	756	11,941	13,236
Growing crops	5,014	5,532	7,480	7,557	2,997	3,433
Accounts receivable	5,522	4,954	8,059	6,508	5,562	5,701
Hedging accounts	0	0	0	0	0	0
Crops held for sale or feed	65,762	60,661	70,148	62,207	76,434	83,363
Crops under government loan	0	0	0	0	0	0
Market livestock held for sale	7,257	6,519	9,772	6,607	11,150	12,674
Other current assets	654	308	191	191	0	0
<b>Total current farm assets</b>	<b>102,919</b>	<b>95,706</b>	<b>115,863</b>	<b>96,752</b>	<b>121,062</b>	<b>139,505</b>
<b>Intermediate Farm Assets</b>						
Breeding livestock	155,361	148,346	156,820	141,999	136,350	135,414
Machinery and equipment	198,009	205,132	213,415	220,430	228,265	227,166
Titled vehicles	150	960	0	0	0	3,036
Other intermediate assets	7,043	7,487	4,117	4,375	9,588	9,660
<b>Total intermediate farm assets</b>	<b>360,562</b>	<b>361,925</b>	<b>374,353</b>	<b>366,804</b>	<b>374,203</b>	<b>375,277</b>
<b>Long Term Farm Assets</b>						
Farm land	490,664	506,354	510,256	521,065	328,361	373,661
Buildings and improvements	112,645	112,464	84,060	75,444	114,805	122,384
Other long-term assets	4,257	15,662	5,716	6,421	5,543	4,860
<b>Total long-term farm assets</b>	<b>607,566</b>	<b>634,479</b>	<b>600,031</b>	<b>602,930</b>	<b>448,709</b>	<b>500,905</b>
<b>Total Farm Assets</b>	<b>1,071,047</b>	<b>1,092,110</b>	<b>1,090,247</b>	<b>1,066,486</b>	<b>943,974</b>	<b>1,015,686</b>
<b>Total Nonfarm Assets</b>	<b>103,687</b>	<b>116,928</b>	<b>81,570</b>	<b>97,005</b>	<b>104,664</b>	<b>103,113</b>
<b>Total Assets</b>	<b>1,174,734</b>	<b>1,209,038</b>	<b>1,171,817</b>	<b>1,163,490</b>	<b>1,048,638</b>	<b>1,118,799</b>
<b>Liabilities</b>						
<b>Current Farm Liabilities</b>						
Accrued interest	1,205	343	197	3	57	99
Accounts payable	3,337	4,067	1,529	972	392	333
Current notes	29,528	27,375	50,230	51,437	22,407	17,868
Government crop loans	0	0	0	0	0	0
Principal due on term debt	22,241	25,322	24,634	21,235	20,188	18,558
<b>Total current farm liabilities</b>	<b>56,311</b>	<b>57,107</b>	<b>76,590</b>	<b>73,648</b>	<b>43,045</b>	<b>36,858</b>
<b>Total intermediate farm liabs</b>	<b>72,078</b>	<b>72,129</b>	<b>43,638</b>	<b>48,123</b>	<b>44,593</b>	<b>53,561</b>
<b>Total long term farm liabilities</b>	<b>168,635</b>	<b>183,473</b>	<b>163,776</b>	<b>197,367</b>	<b>101,239</b>	<b>98,388</b>
<b>Total farm liabilities</b>	<b>297,025</b>	<b>312,709</b>	<b>284,003</b>	<b>319,138</b>	<b>188,877</b>	<b>188,807</b>
<b>Total nonfarm liabilities</b>	<b>1,381</b>	<b>1,392</b>	<b>3,246</b>	<b>2,288</b>	<b>1,450</b>	<b>1,295</b>
<b>Total liabs excluding deferreds</b>	<b>298,406</b>	<b>314,100</b>	<b>287,250</b>	<b>321,425</b>	<b>190,327</b>	<b>190,102</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>298,406</b>	<b>314,100</b>	<b>287,250</b>	<b>321,425</b>	<b>190,327</b>	<b>190,102</b>
<b>Retained earnings</b>	<b>256,504</b>	<b>246,766</b>	<b>217,460</b>	<b>190,248</b>	<b>370,363</b>	<b>383,343</b>
<b>Market valuation equity</b>	<b>619,824</b>	<b>648,172</b>	<b>667,107</b>	<b>651,817</b>	<b>487,948</b>	<b>545,354</b>
<b>Net worth (farm and nonfarm)</b>	<b>876,328</b>	<b>894,938</b>	<b>884,567</b>	<b>842,065</b>	<b>858,310</b>	<b>928,697</b>
<b>Net worth excluding deferreds</b>	<b>876,328</b>	<b>894,938</b>	<b>884,567</b>	<b>842,065</b>	<b>858,310</b>	<b>928,697</b>
<b>Net worth change</b>		<b>18,610</b>		<b>-42,503</b>		<b>70,387</b>
<b>Ratio Analysis</b>						
Current farm liabilities / assets	55 %	60 %	66 %	76 %	36 %	26 %
Curr. & interm farm liab. / assets	28 %	28 %	25 %	26 %	18 %	18 %
Long term farm liab. / assets	28 %	29 %	27 %	33 %	23 %	20 %
Total debt to asset ratio	25 %	26 %	25 %	28 %	18 %	17 %
Debt to assets excl deferreds	25 %	26 %	25 %	28 %	18 %	17 %

Table 29

Statement Of Cash Flows  
**Michigan Dairy, 22-99 Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	40	9	11
Beginning cash (farm & nonfarm)	12,875	19,735	15,444
Cash From Operating Activities			
Gross cash farm income	251,260	253,369	281,152
Net nonfarm income	10,526	17,243	6,661
Total cash farm expense	-207,341	-232,151	-224,698
Apparent family living expense	-38,301	-35,766	-31,581
Income and social security tax	-3,217	-1,947	-5,716
Cash from operations	12,925	749	25,819
Cash From Investing Activities			
Sale of breeding livestock	11,021	13,418	3,250
Sale of machinery & equipment	784	-	694
Sale of titled vehicles	-	-	-
Sale of farm land	-	-	-
Sale of farm buildings	-	-	-
Sale of other farm assets	1,183	78	2,147
Sale of nonfarm assets	-	-	-
Purchase of breeding livestock	-9,863	-2,296	-4,635
Purchase of machinery & equip.	-19,791	-27,163	-11,144
Purchase of titled vehicles	-	-	-
Purchase of farm land	-2,218	-6,887	-
Purchase of farm buildings	-4,972	-17,245	-2,457
Purchase of other farm assets	-3,466	-308	-841
Purchase of nonfarm assets	-4,101	-11,133	-1,053
Cash from investing activities	-31,423	-51,536	-14,040
Cash From Financing Activities			
Money borrowed	74,636	134,983	37,682
Cash gifts and inheritances	4,385	9,052	3,122
Principal payments	-58,802	-100,057	-37,889
Dividends paid	-	-	-
Gifts given	-1,657	-	-3,168
Cash from financing activities	18,562	43,978	-252
Net change in cash balance	64	-6,809	11,527
Ending cash (farm & nonfarm)	12,939	12,926	26,972



Table 30

Financial Standards Measures  
**Michigan Dairy, 22-99 Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	40	9	11
Liquidity			
Current ratio	1.68	1.31	3.78
Working capital	38,599	23,105	102,647
Solvency (market)			
Farm debt to asset ratio	29 %	30 %	19 %
Farm equity to asset ratio	71 %	70 %	81 %
Farm debt to equity ratio	40 %	43 %	23 %
Profitability (cost)			
Rate of return on farm assets	-1.3 %	-9.6 %	3.1 %
Rate of return on farm equity	-10.3 %	-35.3 %	2.4 %
Operating profit margin	-3.6 %	-24.9 %	6.4 %
Net farm income	17,185	-16,625	42,009
Repayment Capacity			
Term debt coverage ratio	65 %	9 %	152 %
Capital replacement margin	-14,579	-33,768	15,560
Efficiency			
Asset turnover rate (cost)	37.7 %	38.5 %	48.4 %
Operating expense ratio	78.7 %	90.1 %	74.3 %
Depreciation expense ratio	8.4 %	10.9 %	8.5 %
Interest expense ratio	5.9 %	5.9 %	2.7 %
Net farm income ratio	7.0 %	-6.9 %	14.5 %

Table 31

Operator and Labor Information  
**Michigan Dairy, 22-99 Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	40	9	11
Operator Information			
Average number of operators	1.5	1.4	1.5
Average age of operators	50.7	55.0	46.8
Average number of years farming	26.5	31.1	22.0
Results Per Operator			
Working capital	26,620	15,995	70,570
Total assets (market)	833,820	805,493	769,174
Total liabilities	216,621	222,525	130,695
Net worth (market)	617,199	582,968	638,479
Net worth excl deferred liabs	617,199	582,968	638,479
Gross farm income	168,984	166,700	199,500
Total farm expense	157,132	178,209	170,618
Net farm income	11,851	-11,509	28,881
Net nonfarm income	7,259	11,937	4,580
Family living & tax withdrawals	28,634	26,109	25,642
Total acres owned	222.1	206.4	238.4
Total crop acres	317.6	367.1	384.3
Crop acres owned	190.6	167.5	209.5
Crop acres cash rented	126.8	199.6	174.0
Crop acres share rented	0.2	-	0.8
Total pasture acres	-	-	-
Labor Analysis			
Number of farms	40	9	11
Total unpaid labor hours	4,074	4,649	3,749
Total hired labor hours	2,047	2,295	2,962
Total labor hours per farm	6,121	6,944	6,711
Unpaid hours per operator	2,810	3,219	2,577
Value of farm production / hour	31.45	26.02	36.11
Net farm income / unpaid hour	4.22	-3.58	11.21
Partnerships			
Number of farms	10	2	3
Number of operators	2.1	-	-
Owner withdrawals per farm	-	-	-
Withdrawals per operator	-	-	-

Table 32

Financial Summary  
**Michigan Dairy, 22-99 Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	40	9	11
<b>Income Statement</b>			
Gross cash farm income	251,260	253,369	281,152
Total cash farm expense	207,341	232,151	224,698
Net cash farm income	43,918	21,218	56,455
Inventory change	-6,206	-11,552	10,343
Depreciation and capital adjust	-20,527	-26,291	-24,788
Net farm income	17,185	-16,625	42,009
<b>Profitability (cost)</b>			
Labor and management earnings	3,921	-26,914	23,313
Rate of return on assets	-1.3 %	-9.6 %	3.1 %
Rate of return on equity	-10.3 %	-35.3 %	2.4 %
Operating profit margin	-3.6 %	-24.9 %	6.4 %
Asset turnover rate	37.7 %	38.5 %	48.4 %
<b>Profitability (market)</b>			
Labor and management earnings	-7,422	-82,233	59,621
Rate of return on assets	1.4 %	-5.9 %	8.2 %
Rate of return on equity	0.1 %	-10.1 %	9.2 %
Operating profit margin	7.9 %	-35.4 %	33.2 %
Asset turnover rate	17.8 %	16.8 %	24.7 %
<b>Liquidity</b>			
Ending current ratio	1.68	1.31	3.78
Ending working capital	38,599	23,105	102,647
End working capital to gross inc	15.4 %	9.1 %	36.5 %
Term debt coverage ratio	65.2 %	9.4 %	151.7 %
Expense as a percent of income	84.6 %	96.0 %	77.0 %
Interest as a percent of income	5.9 %	5.9 %	2.7 %
<b>Solvency (cost)</b>			
Number of farms	40	9	11
Ending farm assets	510,818	466,777	503,776
Ending farm liabilities	312,709	319,138	188,807
Ending total assets	560,867	511,674	573,445
Ending total liabilities	314,100	321,425	190,102
Ending net worth	246,766	190,248	383,343
Net worth change	-9,737	-27,212	12,980
Ending farm debt to asset ratio	61 %	68 %	37 %
Beg total debt to asset ratio	54 %	57 %	34 %
End total debt to asset ratio	56 %	63 %	33 %
<b>Solvency (market)</b>			
Number of farms	40	9	11
Ending farm assets	1,092,110	1,066,486	1,015,686
Ending farm liabilities	312,709	319,138	188,807
Ending total assets	1,209,038	1,163,490	1,118,799
Ending total liabilities	314,100	321,425	190,102
Ending net worth	894,938	842,065	928,697
Net worth change	18,610	-42,503	70,387
Ending farm debt to asset ratio	29 %	30 %	19 %
Beg total debt to asset ratio	25 %	25 %	18 %
End total debt to asset ratio	26 %	28 %	17 %
<b>Nonfarm Information</b>			
Net nonfarm income	10,526	17,243	6,661
<b>Crop Acres</b>			
Total acres owned	322	298	347
Total crop acres	461	530	559
Total crop acres owned	276	242	305
Total crop acres cash rented	194	288	281
Total crop acres share rented	0	-	1



Table 34

Farm Income Statement  
**Michigan Dairy, 100-249 Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	66	16	16
Cash Farm Income			
Asparagus	149	-	-
Beans, Navy	484	-	1,998
Celery	89	-	367
Corn	4,057	5,922	5,201
Corn Silage	328	-	-
Hay, Alfalfa	280	848	-
Hay, Mixed	855	370	784
Soybeans	12,045	14,960	10,118
Straw	103	235	165
Wheat, Winter	4,046	5,103	4,565
Miscellaneous crop income	114	22	-
Beef Cow-Calf, Beef Calves	168	-	-
Beef, Finish Beef Calves	1,043	-	-
Dairy, Milk	421,838	367,627	450,956
Dairy, Dairy Calves	4,077	3,458	2,233
Dairy Heifers (for sale)	823	1,161	509
Dairy Replacement Heifers	298	884	106
Dairy Steers	5,959	5,263	9,216
Cull breeding livestock	23,214	19,407	22,335
Misc. livestock income	4,399	468	6,143
Direct & CC govt payments	1,555	-	2,315
Other government payments	42,030	40,041	43,962
Custom work income	2,440	165	5,651
Patronage dividends, cash	4,615	8,126	3,787
Insurance income	2,260	1,635	5,762
Cash from hedging accts	883	-	3,643
Other farm income	7,570	3,027	5,274
Gross Cash Farm Income	545,723	478,723	585,089

Table 34, continued

## Farm Income Statement

## Michigan Dairy, 100-249 Cows, 2003

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

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	66	16	16
Cash Farm Expense			
Seed	10,975	9,118	13,462
Fertilizer	15,173	14,225	14,968
Crop chemicals	8,385	9,617	11,448
Crop insurance	325	628	238
Drying fuel	406	788	215
Irrigation energy	145	588	10
Crop custom hire	2,809	2,272	2,825
Crop hauling and trucking	36	-	148
Crop marketing	44	-	179
Crop miscellaneous	1,386	1,384	618
Feeder livestock purchase	213	31	26
Purchased feed	119,058	121,075	123,749
Breeding fees	4,292	3,008	4,503
Veterinary	13,985	14,384	12,025
BST	909	515	2,017
Livestock supplies	22,116	19,587	21,162
DHIA	678	836	737
Livestock leases	642	2,650	-
Livestock hauling and trucking	7,261	5,170	9,076
Livestock marketing	15,165	15,130	15,173
Bedding	490	-	1,156
Livestock miscellaneous	75	-	308
Interest	20,772	19,615	18,228
Packaging and supplies	689	130	1,908
Fuel & oil	15,735	13,407	15,074
Repairs	28,187	25,598	29,193
Custom hire	12,497	11,835	17,912
Hired labor	74,617	71,803	67,955
Land rent	21,379	15,259	22,288
Machinery & bldg leases	6,660	9,386	5,994
Real estate taxes	6,927	5,447	7,548
Personal property taxes	387	-	22
Farm insurance	9,112	7,616	7,376
Utilities	11,544	10,165	12,776
Hauling and trucking	107	-	-
Dues & professional fees	4,083	4,061	3,869
Miscellaneous	9,967	12,051	5,919
Total cash expense	447,231	427,377	450,105
Net cash farm income	98,492	51,346	134,984
Inventory Changes			
Crops and feed	4,585	-14,834	9,976
Market livestock	-299	891	-1,127
Accounts receivable	1,640	-700	3,093
Prepaid expenses and supplies	515	172	361
Accounts payable	-4,600	-17,019	1,415
Total inventory change	1,841	-31,490	13,717
Net operating profit	100,333	19,856	148,701
Depreciation and Other Capital Adjustments			
Breeding livestock	10,185	-3,097	18,631
Machinery and equipment	-37,501	-23,959	-43,144
Buildings and improvements	-15,855	-7,515	-14,790
Other farm capital	-215	721	1,971
Total depr. and other capital adj	-43,386	-33,850	-37,332
Net farm income	56,947	-13,994	111,369

Table 35

Inventory Changes  
**Michigan Dairy, 100-249 Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	66	16	17
Net cash farm income	98,492	51,346	136,509
Crops and Feed			
Ending inventory	113,335	84,637	125,196
Beginning inventory	108,750	99,470	115,807
Inventory change	4,585	-14,834	9,389
Market Livestock			
Ending inventory	11,180	10,669	14,242
Beginning inventory	11,479	9,778	15,303
Inventory change	-299	891	-1,061
Accts Receivable & Other Current Assets			
Ending inventory	26,999	29,300	22,692
Beginning inventory	25,359	30,000	19,781
Inventory change	1,640	-700	2,911
Prepaid Expenses and Supplies			
Ending inventory	11,168	4,143	10,458
Beginning inventory	10,653	3,971	10,118
Inventory change	515	172	340
Accounts Payable & Accrued Expenses			
Beginning inventory	12,856	20,021	8,533
Ending inventory	17,456	37,040	7,191
Inventory change	-4,600	-17,019	1,343
Total inventory change	1,841	-31,490	12,921
Net operating profit	100,333	19,856	149,430

Table 36 Depreciation and Other Capital Adjustments  
**Michigan Dairy, 100-249 Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	66	16	17
Net operating profit	100,333	19,856	149,430
Breeding Livestock			
Ending inventory	358,189	316,003	351,405
Capital sales	3,936	4,093	1,384
Beginning inventory	340,827	307,153	331,095
Capital purchases	11,112	16,039	4,159
Depreciation, capital adjust.	10,185	-3,097	17,535
Machinery and Equipment			
Ending inventory	120,807	79,617	141,026
Capital sales	2,103	563	1,661
Beginning inventory	129,007	78,435	154,310
Capital purchases	31,403	25,703	31,765
Depreciation, capital adjust.	-37,501	-23,959	-43,389
Buildings and Improvements			
Ending inventory	121,027	91,969	125,668
Capital sales	2,716	-	-
Beginning inventory	116,296	80,283	120,923
Capital purchases	23,302	19,201	19,506
Depreciation, capital adjust.	-15,855	-7,515	-14,761
Other Capital Assets			
Ending inventory	38,221	27,681	13,390
Capital sales	6,055	11,339	508
Beginning inventory	40,238	33,856	9,269
Capital purchases	4,253	4,444	2,605
Depreciation, capital adjust.	-215	721	2,025
Total depreciation, capital adj.	-43,386	-33,850	-38,590
Net farm income	56,947	-13,994	110,840



Table 37

Profitability Measures  
**Michigan Dairy, 100-249 Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	66	16	17
Profitability (assets valued at cost)			
Net farm income	56,947	-13,994	110,840
Labor and management earnings	24,519	-36,529	75,564
Rate of return on assets	2.5 %	-5.8 %	8.5 %
Rate of return on equity	0.7 %	-18.0 %	10.8 %
Operating profit margin	5.6 %	-13.8 %	16.7 %
Asset turnover rate	44.8 %	41.8 %	50.6 %
Interest on farm net worth	32,428	22,535	35,276
Farm interest expense	21,185	20,741	19,471
Value of operator lbr and mgmt.	53,195	53,738	47,678
Return on farm assets	24,937	-46,991	82,633
Average farm assets	987,492	813,514	976,387
Return on farm equity	3,753	-67,732	63,162
Average farm equity	538,147	375,587	585,889
Value of farm production	442,563	339,878	493,714
	Avg. Of All Farms	Low 25%	High 25%
Number of farms	66	16	17
Profitability (assets valued at market)			
Net farm income	93,476	-4,200	156,038
Labor and management earnings	29,049	-46,883	98,072
Rate of return on assets	4.0 %	-3.2 %	9.4 %
Rate of return on equity	3.8 %	-8.1 %	11.2 %
Operating profit margin	13.9 %	-10.9 %	25.9 %
Asset turnover rate	28.9 %	29.2 %	36.4 %
Interest on farm net worth	64,427	42,683	57,966
Farm interest expense	21,185	20,741	19,471
Value of operator lbr and mgmt.	53,195	53,738	47,678
Return on farm assets	61,466	-37,197	127,831
Average farm assets	1,529,751	1,165,227	1,356,597
Return on farm equity	40,282	-57,938	108,360
Average farm equity	1,073,777	711,384	966,100
Value of farm production	442,563	339,878	493,714

Table 38

Liquidity Measures  
**Michigan Dairy, 100-249 Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	66	16	17
Liquidity (cash)			
Net cash farm income	98,492	51,346	136,509
Net nonfarm income	8,312	4,805	8,462
Family living and taxes	44,691	22,741	60,464
Real estate principal payments	11,274	7,570	4,763
Cash available for interm. debt	50,839	25,839	79,743
Average intermediate debt	155,945	185,005	163,236
Years to turnover interm. debt	3.1	7.2	2.0
Expense as a % of income	82 %	89 %	77 %
Interest as a % of income	4 %	4 %	3 %
Liquidity (accrual)			
Total accrual farm income	551,649	464,081	600,518
Total accrual operating expense	451,316	444,224	451,088
Net accrual operating income	100,333	19,856	149,430
Net nonfarm income	8,312	4,805	8,462
Family living and taxes	44,691	22,741	60,464
Real estate principal payments	11,274	7,570	4,763
Available for intermediate debt	52,680	-5,650	92,665
Average intermediate debt	155,945	185,005	163,236
Years to turnover interm. debt	3.0	**	1.8
Expense as a % of income	82 %	96 %	75 %
Interest as a % of income	4 %	4 %	3 %

\*\* Income insufficient to meet debt servicing requirements

Table 39

Balance Sheet at Cost Values  
**Michigan Dairy, 100-249 Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of		Low 25%		High 25%	
	All Farms					
Number of farms	66		16		17	
	Beginning	Ending	Beginning	Ending	Beginning	Ending
<b>Assets</b>						
<b>Current Farm Assets</b>						
Cash and checking balance	18,326	16,160	20,537	16,997	17,036	17,860
Prepaid expenses & supplies	10,653	11,168	3,971	4,143	10,118	10,458
Growing crops	7,586	7,568	11,512	11,243	5,846	6,054
Accounts receivable	17,766	19,375	18,487	18,057	13,935	16,638
Hedging accounts	0	0	0	0	0	0
Crops held for sale or feed	108,750	113,335	99,470	84,637	115,807	125,196
Crops under government loan	0	0	0	0	0	0
Market livestock held for sale	11,479	11,180	9,778	10,669	15,303	14,242
Other current assets	7	55	0	0	0	0
<b>Total current farm assets</b>	<b>174,567</b>	<b>178,842</b>	<b>163,757</b>	<b>145,746</b>	<b>178,045</b>	<b>190,447</b>
<b>Intermediate Farm Assets</b>						
Breeding livestock	340,827	358,189	307,153	316,003	331,095	351,405
Machinery and equipment	128,571	120,262	78,379	79,169	153,160	139,495
Titled vehicles	437	545	56	448	1,150	1,532
Other intermediate assets	24,076	21,691	26,315	19,563	4,592	7,432
<b>Total intermediate farm assets</b>	<b>493,911</b>	<b>500,687</b>	<b>411,903</b>	<b>415,182</b>	<b>489,998</b>	<b>499,864</b>
<b>Long Term Farm Assets</b>						
Farm land	171,162	185,800	144,977	157,552	165,582	171,612
Buildings and improvements	116,296	121,027	80,283	91,969	120,923	125,668
Other long-term assets	16,162	16,530	7,541	8,118	4,677	5,958
<b>Total long-term farm assets</b>	<b>303,620</b>	<b>323,357</b>	<b>232,800</b>	<b>257,639</b>	<b>291,182</b>	<b>303,237</b>
<b>Total Farm Assets</b>	<b>972,097</b>	<b>1,002,886</b>	<b>808,460</b>	<b>818,567</b>	<b>959,225</b>	<b>993,548</b>
<b>Total Nonfarm Assets</b>	<b>62,138</b>	<b>69,469</b>	<b>35,799</b>	<b>36,503</b>	<b>55,485</b>	<b>64,172</b>
<b>Total Assets</b>	<b>1,034,235</b>	<b>1,072,355</b>	<b>844,259</b>	<b>855,071</b>	<b>1,014,710</b>	<b>1,057,720</b>
<b>Liabilities</b>						
<b>Current Farm Liabilities</b>						
Accrued interest	644	1,056	1,093	2,220	530	830
Accounts payable	12,213	16,400	18,928	34,820	8,003	6,361
Current notes	63,543	62,547	78,448	70,431	46,173	51,637
Government crop loans	0	0	0	0	0	0
Principal due on term debt	39,018	46,643	39,123	44,925	25,698	48,301
<b>Total current farm liabilities</b>	<b>115,417</b>	<b>126,646</b>	<b>137,593</b>	<b>152,395</b>	<b>80,404</b>	<b>107,128</b>
<b>Total intermediate farm liabs</b>	<b>132,993</b>	<b>115,429</b>	<b>156,024</b>	<b>144,219</b>	<b>148,960</b>	<b>116,215</b>
<b>Total long term farm liabilities</b>	<b>194,874</b>	<b>213,330</b>	<b>122,588</b>	<b>163,034</b>	<b>169,795</b>	<b>158,493</b>
<b>Total farm liabilities</b>	<b>443,285</b>	<b>455,405</b>	<b>416,205</b>	<b>459,648</b>	<b>399,159</b>	<b>381,836</b>
<b>Total nonfarm liabilities</b>	<b>6,909</b>	<b>6,577</b>	<b>5,905</b>	<b>5,353</b>	<b>14,683</b>	<b>14,186</b>
<b>Total liabilities</b>	<b>450,193</b>	<b>461,982</b>	<b>422,109</b>	<b>465,002</b>	<b>413,842</b>	<b>396,022</b>
<b>Net worth (farm and nonfarm)</b>	<b>584,042</b>	<b>610,373</b>	<b>422,149</b>	<b>390,069</b>	<b>600,868</b>	<b>661,698</b>
<b>Net worth change</b>		<b>26,331</b>		<b>-32,080</b>		<b>60,830</b>
<b>Ratio Analysis</b>						
Current farm liabilities / assets	66 %	71 %	84 %	105 %	45 %	56 %
Curr. & interm farm liab. / assets	37 %	36 %	51 %	53 %	34 %	32 %
Long term farm liab. / assets	64 %	66 %	53 %	63 %	58 %	52 %
Total debt to asset ratio	44 %	43 %	50 %	54 %	41 %	37 %

Table 40

Balance Sheet at Market Values  
**Michigan Dairy, 100-249 Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms		Low 25%		High 25%	
	66 Beginning	Ending	16 Beginning	Ending	17 Beginning	Ending
Number of farms	66		16		17	
<b>Assets</b>						
<b>Current Farm Assets</b>						
Cash and checking balance	18,326	16,160	20,537	16,997	17,036	17,860
Prepaid expenses & supplies	10,653	11,168	3,971	4,143	10,118	10,458
Growing crops	7,586	7,568	11,512	11,243	5,846	6,054
Accounts receivable	17,766	19,375	18,487	18,057	13,935	16,638
Hedging accounts	0	0	0	0	0	0
Crops held for sale or feed	108,750	113,335	99,470	84,637	115,807	125,196
Crops under government loan	0	0	0	0	0	0
Market livestock held for sale	11,479	11,180	9,778	10,669	15,303	14,242
Other current assets	7	55	0	0	0	0
Total current farm assets	174,567	178,842	163,757	145,746	178,045	190,447
<b>Intermediate Farm Assets</b>						
Breeding livestock	342,983	361,266	307,340	316,190	334,389	355,491
Machinery and equipment	278,820	288,597	198,445	204,048	328,748	339,886
Titled vehicles	1,139	1,359	625	1,050	1,715	2,407
Other intermediate assets	28,235	25,865	26,994	20,242	4,592	7,432
Total intermediate farm assets	651,176	677,088	533,404	541,531	669,444	705,216
<b>Long Term Farm Assets</b>						
Farm land	477,566	501,041	340,250	354,658	302,381	317,145
Buildings and improvements	168,943	182,528	110,738	124,770	162,290	177,865
Other long-term assets	23,749	24,002	7,541	8,057	4,677	5,684
Total long-term farm assets	670,257	707,571	458,529	487,486	469,347	500,695
Total Farm Assets	1,496,000	1,563,501	1,155,690	1,174,763	1,316,836	1,396,358
Total Nonfarm Assets	114,859	140,809	98,825	98,466	117,997	124,246
Total Assets	1,610,860	1,704,310	1,254,515	1,273,229	1,434,833	1,520,604
<b>Liabilities</b>						
<b>Current Farm Liabilities</b>						
Accrued interest	644	1,056	1,093	2,220	530	830
Accounts payable	12,213	16,400	18,928	34,820	8,003	6,361
Current notes	63,543	62,547	78,448	70,431	46,173	51,637
Government crop loans	0	0	0	0	0	0
Principal due on term debt	39,018	46,643	39,123	44,925	25,698	48,301
Total current farm liabilities	115,417	126,646	137,593	152,395	80,404	107,128
Total intermediate farm liabs	132,993	115,429	156,024	144,219	148,960	116,215
Total long term farm liabilities	194,874	213,330	122,588	163,034	169,795	158,493
Total farm liabilities	443,285	455,405	416,205	459,648	399,159	381,836
Total nonfarm liabilities	6,909	6,577	5,905	5,353	14,683	14,186
Total liabs excluding deferreds	450,193	461,982	422,109	465,002	413,842	396,022
Total deferred liabilities	7,230	7,265	19,392	17,952	0	0
Total liabilities	457,424	469,247	441,502	482,954	413,842	396,022
Retained earnings	584,042	610,373	422,149	390,069	600,868	661,698
Market valuation equity	569,394	624,690	390,864	400,206	420,123	462,884
Net worth (farm and nonfarm)	1,153,436	1,235,063	813,013	790,275	1,020,991	1,124,582
Net worth excluding deferreds	1,160,666	1,242,328	832,406	808,227	1,020,991	1,124,582
Net worth change		81,627		-22,738		103,591
<b>Ratio Analysis</b>						
Current farm liabilities / assets	66 %	71 %	84 %	105 %	45 %	56 %
Curr. & interm farm liab. / assets	30 %	28 %	42 %	43 %	27 %	25 %
Long term farm liab. / assets	29 %	30 %	27 %	33 %	36 %	32 %
Total debt to asset ratio	28 %	28 %	35 %	38 %	29 %	26 %
Debt to assets excl deferreds	28 %	27 %	34 %	37 %	29 %	26 %

Table 41

Statement Of Cash Flows  
**Michigan Dairy, 100-249 Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	66	16	17
Beginning cash (farm & nonfarm)	18,355	20,537	17,150
Cash From Operating Activities			
Gross cash farm income	545,723	478,723	589,279
Net nonfarm income	8,312	4,805	8,462
Total cash farm expense	-447,231	-427,377	-452,771
Apparent family living expense	-41,375	-19,302	-58,328
Income and social security tax	-3,316	-3,439	-2,135
Cash from operations	62,113	33,410	84,507
Cash From Investing Activities			
Sale of breeding livestock	3,936	4,093	1,384
Sale of machinery & equipment	2,103	563	1,661
Sale of titled vehicles	-	-	-
Sale of farm land	636	-	2,353
Sale of farm buildings	2,716	-	-
Sale of other farm assets	6,055	11,339	508
Sale of nonfarm assets	2,480	-	-
Purchase of breeding livestock	-11,112	-16,039	-4,159
Purchase of machinery & equip.	-31,403	-25,703	-31,765
Purchase of titled vehicles	-	-	-
Purchase of farm land	-16,483	-13,125	-12,412
Purchase of farm buildings	-23,302	-19,201	-19,506
Purchase of other farm assets	-4,253	-4,444	-2,605
Purchase of nonfarm assets	-2,861	-662	-4,199
Cash from investing activities	-71,487	-63,180	-68,740
Cash From Financing Activities			
Money borrowed	104,568	143,909	95,591
Cash gifts and inheritances	1,761	665	2,121
Principal payments	-97,541	-117,962	-112,059
Dividends paid	-	-	-
Gifts given	-1,579	-381	-594
Cash from financing activities	7,209	26,230	-14,940
Net change in cash balance	-2,165	-3,540	826
Ending cash (farm & nonfarm)	16,190	16,997	17,976

Table 42

Financial Standards Measures  
**Michigan Dairy, 100-249 Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	66	16	17
Liquidity			
Current ratio	1.41	0.96	1.78
Working capital	52,196	-6,649	83,319
Solvency (market)			
Farm debt to asset ratio	30 %	40 %	27 %
Farm equity to asset ratio	70 %	60 %	73 %
Farm debt to equity ratio	42 %	68 %	38 %
Profitability (cost)			
Rate of return on farm assets	2.5 %	-5.8 %	8.5 %
Rate of return on farm equity	0.7 %	-18.0 %	10.8 %
Operating profit margin	5.6 %	-13.8 %	16.7 %
Net farm income	56,947	-13,994	110,840
Repayment Capacity			
Term debt coverage ratio	130 %	41 %	187 %
Capital replacement margin	20,209	-37,695	55,908
Efficiency			
Asset turnover rate (cost)	44.8 %	41.8 %	50.6 %
Operating expense ratio	78.0 %	91.3 %	71.9 %
Depreciation expense ratio	7.9 %	7.3 %	6.4 %
Interest expense ratio	3.8 %	4.5 %	3.2 %
Net farm income ratio	10.3 %	-3.0 %	18.5 %

Table 43

Operator and Labor Information  
**Michigan Dairy, 100-249 Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	66	16	17
Operator Information			
Average number of operators	1.5	1.4	1.4
Average age of operators	50.7	55.2	45.6
Average number of years farming	26.4	31.3	21.8
Results Per Operator			
Working capital	34,622	-4,836	59,018
Total assets (market)	1,130,497	925,985	1,077,094
Total liabilities	311,259	351,239	280,515
Net worth (market)	819,238	574,746	796,579
Net worth excl deferred liabs	824,057	587,802	796,579
Gross farm income	365,918	337,513	425,367
Total farm expense	328,144	347,690	346,855
Net farm income	37,774	-10,177	78,512
Net nonfarm income	5,514	3,494	5,994
Family living & tax withdrawals	29,645	16,539	42,828
Total acres owned	244.4	220.5	221.2
Total crop acres	437.1	394.8	467.4
Crop acres owned	208.5	149.8	212.1
Crop acres cash rented	224.8	245.0	251.9
Crop acres share rented	3.8	-	3.4
Total pasture acres	2.0	3.5	3.8
Labor Analysis			
Number of farms	64	16	17
Total unpaid labor hours	4,744	4,421	4,585
Total hired labor hours	5,815	5,725	5,396
Total labor hours per farm	10,559	10,147	9,981
Unpaid hours per operator	3,213	3,215	3,248
Value of farm production / hour	41.81	33.50	49.46
Net farm income / unpaid hour	11.90	-3.17	24.17
Partnerships			
Number of farms	17	3	6
Number of operators	2.1	-	2.0
Owner withdrawals per farm	-	-	-
Withdrawals per operator	-	-	-

Table 44

Financial Summary  
**Michigan Dairy, 100-249 Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	66	16	17
<b>Income Statement</b>			
Gross cash farm income	545,723	478,723	589,279
Total cash farm expense	447,231	427,377	452,771
Net cash farm income	98,492	51,346	136,509
Inventory change	1,841	-31,490	12,921
Depreciation and capital adjust	-43,386	-33,850	-38,590
Net farm income	56,947	-13,994	110,840
<b>Profitability (cost)</b>			
Labor and management earnings	24,519	-36,529	75,564
Rate of return on assets	2.5 %	-5.8 %	8.5 %
Rate of return on equity	0.7 %	-18.0 %	10.8 %
Operating profit margin	5.6 %	-13.8 %	16.7 %
Asset turnover rate	44.8 %	41.8 %	50.6 %
<b>Profitability (market)</b>			
Labor and management earnings	29,049	-46,883	98,072
Rate of return on assets	4.0 %	-3.2 %	9.4 %
Rate of return on equity	3.8 %	-8.1 %	11.2 %
Operating profit margin	13.9 %	-10.9 %	25.9 %
Asset turnover rate	28.9 %	29.2 %	36.4 %
<b>Liquidity</b>			
Ending current ratio	1.41	0.96	1.78
Ending working capital	52,196	-6,649	83,319
End working capital to gross inc	9.6 %	-1.4 %	14.1 %
Term debt coverage ratio	130.3 %	40.6 %	187.3 %
Expense as a percent of income	81.8 %	95.7 %	75.1 %
Interest as a percent of income	3.8 %	4.5 %	3.2 %
<b>Solvency (cost)</b>			
Number of farms	66	16	17
Ending farm assets	1,002,886	818,567	993,548
Ending farm liabilities	455,405	459,648	381,836
Ending total assets	1,072,355	855,071	1,057,720
Ending total liabilities	461,982	465,002	396,022
Ending net worth	610,373	390,069	661,698
Net worth change	26,331	-32,080	60,830
Ending farm debt to asset ratio	45 %	56 %	38 %
Beg total debt to asset ratio	44 %	50 %	41 %
End total debt to asset ratio	43 %	54 %	37 %
<b>Solvency (market)</b>			
Number of farms	66	16	17
Ending farm assets	1,563,501	1,174,763	1,396,358
Ending farm liabilities	462,125	475,150	381,836
Ending total assets	1,704,310	1,273,229	1,520,604
Ending total liabilities	469,247	482,954	396,022
Ending net worth	1,235,063	790,275	1,124,582
Net worth change	81,627	-22,738	103,591
Ending farm debt to asset ratio	30 %	40 %	27 %
Beg total debt to asset ratio	28 %	35 %	29 %
End total debt to asset ratio	28 %	38 %	26 %
<b>Nonfarm Information</b>			
Net nonfarm income	8,312	4,805	8,462
<b>Crop Acres</b>			
Total acres owned	389	318	351
Total crop acres	675	609	657
Total crop acres owned	314	206	300
Total crop acres cash rented	347	353	328
Total crop acres share rented	6	-	5



**D. Financial Summary Information, Herds with 250+ Cows**

Table 45                      Crop Production and Marketing Summary			
<b>Michigan Dairy, 250 Plus Cows, 2003</b>			
(Farms Sorted By Rate of Return on Assets - Mkt)			
	Avg. Of All Farms	Low 25%	High 25%
<b>Dairy</b>			
Number of farms	35	10	9
Average number of Cows	423	376	410
Milk production per Cow, lbs.	23444	24060	22073
Average milk price per cwt.,	\$12.67	\$11.96	\$13.38
<b>Acreage Summary</b>			
Total acres owned	731	791	619
Total crop acres	1,335	1340	1,654
Crop acres owned	716	601	1,072
Crop acres cash rented	595	655	1137
Crop acres share rented	-	-	-
Total pasture acres	12	8	3
<b>Average Price Received (Cash Sales Only)</b>			
Wheat, Winter per bushel	3.28	-	3.86
Soybeans per bushel	5.86	-	-
Corn per bushel	2.08	-	-
Haylage, Mixed per ton	30.07	-	-

Table 46

Farm Income Statement  
**Michigan Dairy, 250 Plus Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	35	10	9
Cash Farm Income			
Corn	13,853	3,321	36,157
Corn Silage	3,320	-	11,684
Hay, Alfalfa	514	-	1,997
Hay, Mixed	1,618	137	5,781
Haylage, Alfalfa	344	176	1,142
Haylage, Mixed	2,858	3,416	6,866
Oats	557	282	-
Rye	46	162	-
Soybeans	34,307	30,323	75,029
Speltz	3,506	-	13,633
Straw	201	50	701
Sugar Beets	8,641	-	33,604
Wheat, Winter	10,305	1,622	25,559
Miscellaneous crop income	19	-	75
Beef, Finish Beef Calves	34	120	-
Dairy, Milk	1,213,429	1,045,641	1,219,203
Dairy, Dairy Calves	10,770	9,580	13,806
Dairy Heifers (for sale)	5,246	-	14,125
Dairy Replacement Heifers	915	720	2,494
Dairy Steers	10,788	9,610	14,967
Cull breeding livestock	56,460	39,179	48,074
Misc. livestock income	1,559	7	-
Direct & CC govt payments	1,367	-	-
Other government payments	52,384	52,752	61,146
Custom work income	5,916	4,880	7,666
Patronage dividends, cash	18,022	10,069	26,535
Insurance income	14,338	3,432	46,586
Cash from hedging accts	257	-	1,000
Other farm income	12,244	9,762	21,506
Gross Cash Farm Income	1,483,818	1,225,240	1,689,336

Table 46, continued

## Farm Income Statement

## Michigan Dairy, 250 Plus Cows, 2003

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

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	35	10	9
<b>Cash Farm Expense</b>			
Seed	28,468	26,181	37,287
Fertilizer	31,185	24,406	35,941
Crop chemicals	21,577	22,691	23,891
Crop insurance	2,151	1,666	5,204
Drying fuel	431	665	706
Irrigation energy	163	-	-
Crop custom hire	611	-	2,376
Crop marketing	59	205	-
Crop miscellaneous	2,299	605	2,522
Feeder livestock purchase	9,399	-	3,646
Purchased feed	334,030	342,973	341,149
Breeding fees	12,206	10,451	11,380
Veterinary	48,850	41,394	53,312
BST	3,773	6,682	-
Livestock supplies	61,922	44,999	63,093
DHIA	358	-	489
Livestock leases	847	-	2,122
Livestock hauling and trucking	9,037	4,641	12,822
Livestock marketing	45,511	49,316	34,921
Bedding	1,312	-	-
Interest	64,281	73,384	72,076
Packaging and supplies	1,197	-	4,395
Fuel & oil	32,548	27,710	41,086
Repairs	74,908	51,647	97,513
Custom hire	55,464	53,940	45,601
Hired labor	263,222	201,713	269,979
Land rent	46,145	39,291	75,536
Machinery & bldg leases	14,600	7,738	34,416
Real estate taxes	12,831	10,570	13,184
Personal property taxes	549	412	1,538
Farm insurance	20,125	19,851	19,595
Utilities	32,088	31,063	30,682
Hauling and trucking	1,503	-	5,832
Dues & professional fees	7,923	9,785	6,324
Hedging account deposits	1,450	-	6,012
Miscellaneous	29,783	36,382	16,580
Total cash expense	1,272,805	1,140,364	1,371,209
Net cash farm income	211,013	84,876	318,126
<b>Inventory Changes</b>			
Crops and feed	8,009	-8,495	2,499
Market livestock	1,884	14	4,197
Accounts receivable	5,911	11,427	-21,516
Prepaid expenses and supplies	-3,295	865	10,045
Accounts payable	-36	6,217	-7,970
Total inventory change	12,473	10,028	-12,745
Net operating profit	223,485	94,904	305,382
<b>Depreciation and Other Capital Adjustments</b>			
Breeding livestock	22,754	-2,317	38,090
Machinery and equipment	-82,953	-56,765	-80,575
Buildings and improvements	-54,407	-41,170	-77,936
Other farm capital	-4,188	-584	72
Total depr. and other capital adj	-118,793	-100,835	-120,350
Net farm income	104,692	-5,932	185,032

Table 47

Inventory Changes  
**Michigan Dairy, 250 Plus Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	35	8	9
Net cash farm income	211,013	88,972	318,126
Crops and Feed			
Ending inventory	276,631	217,710	302,790
Beginning inventory	268,622	236,098	300,290
Inventory change	8,009	-18,388	2,499
Market Livestock			
Ending inventory	18,652	8,283	43,586
Beginning inventory	16,768	8,265	39,389
Inventory change	1,884	18	4,197
Accts Receivable & Other Current Assets			
Ending inventory	85,593	61,783	133,054
Beginning inventory	79,681	46,090	154,570
Inventory change	5,911	15,693	-21,516
Prepaid Expenses and Supplies			
Ending inventory	54,993	10,166	58,854
Beginning inventory	58,288	8,960	48,809
Inventory change	-3,295	1,206	10,045
Accounts Payable & Accrued Expenses			
Beginning inventory	42,986	44,028	19,745
Ending inventory	43,022	49,849	27,715
Inventory change	-36	-5,821	-7,970
Total inventory change	12,473	-7,293	-12,745
Net operating profit	223,485	81,680	305,382

Table 48

Depreciation and Other Capital Adjustments  
**Michigan Dairy, 250 Plus Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	35	8	9
Net operating profit	223,485	81,680	305,382
Breeding Livestock			
Ending inventory	836,523	749,581	850,506
Capital sales	9,241	19,438	9,596
Beginning inventory	774,846	732,108	772,167
Capital purchases	48,165	26,644	49,845
Depreciation, capital adjust.	22,754	10,268	38,090
Machinery and Equipment			
Ending inventory	303,839	286,203	426,930
Capital sales	3,589	1,402	5,467
Beginning inventory	311,873	301,874	396,538
Capital purchases	78,508	48,784	116,435
Depreciation, capital adjust.	-82,953	-63,053	-80,575
Buildings and Improvements			
Ending inventory	341,960	369,281	444,751
Capital sales	247	-	-
Beginning inventory	359,916	368,048	468,833
Capital purchases	36,698	38,184	53,854
Depreciation, capital adjust.	-54,407	-36,951	-77,936
Other Capital Assets			
Ending inventory	77,293	55,783	84,719
Capital sales	20,763	58,782	7,621
Beginning inventory	76,143	64,609	75,689
Capital purchases	26,100	51,552	16,579
Depreciation, capital adjust.	-4,188	-1,595	72
Total depreciation, capital adj.	-118,793	-91,331	-120,350
Net farm income	104,692	-9,652	185,032

Table 49

Profitability Measures  
**Michigan Dairy, 250 Plus Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	35	8	9
Profitability (assets valued at cost)			
Net farm income	104,692	-9,652	185,032
Labor and management earnings	35,717	-60,220	108,284
Rate of return on assets	3.6 %	-1.6 %	7.1 %
Rate of return on equity	1.9 %	-13.5 %	9.8 %
Operating profit margin	7.3 %	-3.9 %	14.5 %
Asset turnover rate	49.2 %	41.8 %	49.0 %
Interest on farm net worth	68,975	50,569	76,748
Farm interest expense	64,742	74,226	72,719
Value of operator lbr and mgmt.	82,801	100,302	59,952
Return on farm assets	86,634	-35,727	197,800
Average farm assets	2,398,055	2,188,177	2,792,970
Return on farm equity	21,891	-109,953	125,080
Average farm equity	1,138,109	814,597	1,279,132
Value of farm production	1,178,946	914,131	1,367,811
	Avg. Of All Farms	Low 25%	High 25%
Number of farms	35	8	9
Profitability (assets valued at market)			
Net farm income	217,845	2,551	426,799
Labor and management earnings	79,083	-102,783	288,537
Rate of return on assets	5.6 %	-0.8 %	11.5 %
Rate of return on equity	5.8 %	-5.6 %	15.9 %
Operating profit margin	16.9 %	-2.6 %	32.1 %
Asset turnover rate	32.8 %	29.2 %	35.8 %
Interest on farm net worth	138,762	105,334	138,263
Farm interest expense	64,742	74,226	72,719
Value of operator lbr and mgmt.	82,801	100,302	59,952
Return on farm assets	199,786	-23,524	439,567
Average farm assets	3,594,318	3,129,151	3,818,218
Return on farm equity	135,044	-97,750	366,847
Average farm equity	2,312,694	1,755,571	2,304,379
Value of farm production	1,178,946	914,131	1,367,811

Table 50

Liquidity Measures  
**Michigan Dairy, 250 Plus Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	35	8	9
Liquidity (cash)			
Net cash farm income	211,013	88,972	318,126
Net nonfarm income	11,810	14,246	9,587
Family living and taxes	94,359	81,124	79,702
Real estate principal payments	33,373	38,752	32,234
Cash available for interm. debt	95,090	-16,658	215,778
Average intermediate debt	390,394	319,900	469,896
Years to turnover interm. debt	4.1	**	2.2
Expense as a % of income	86 %	93 %	81 %
Interest as a % of income	4 %	6 %	4 %
Liquidity (accrual)			
Total accrual farm income	1,499,622	1,239,236	1,674,516
Total accrual operating expense	1,276,136	1,157,557	1,369,135
Net accrual operating income	223,485	81,680	305,382
Net nonfarm income	11,810	14,246	9,587
Family living and taxes	94,359	81,124	79,702
Real estate principal payments	33,373	38,752	32,234
Available for intermediate debt	107,563	-23,951	203,034
Average intermediate debt	390,394	319,900	469,896
Years to turnover interm. debt	3.6	**	2.3
Expense as a % of income	85 %	93 %	82 %
Interest as a % of income	4 %	6 %	4 %

\*\* Income insufficient to meet debt servicing requirements

Table 51

Balance Sheet at Cost Values  
**Michigan Dairy, 250 Plus Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of		Low 25%		High 25%	
	All Farms					
Number of farms	35		8		9	
	Beginning	Ending	Beginning	Ending	Beginning	Ending
<b>Assets</b>						
<b>Current Farm Assets</b>						
Cash and checking balance	32,031	39,313	30,589	30,675	34,312	46,214
Prepaid expenses & supplies	58,288	54,993	8,960	10,166	48,809	58,854
Growing crops	12,645	15,450	14,481	18,847	17,811	18,606
Accounts receivable	57,949	67,183	31,609	42,561	104,264	107,104
Hedging accounts	1,809	1,905	0	0	6,117	7,344
Crops held for sale or feed	268,622	275,778	236,098	217,710	300,290	299,470
Crops under government loan	0	854	0	0	0	3,320
Market livestock held for sale	16,768	18,652	8,265	8,283	39,389	43,586
Other current assets	7,278	1,055	0	375	26,378	0
<b>Total current farm assets</b>	<b>455,391</b>	<b>475,182</b>	<b>330,002</b>	<b>328,616</b>	<b>577,370</b>	<b>584,498</b>
<b>Intermediate Farm Assets</b>						
Breeding livestock	774,846	836,523	732,108	749,581	772,167	850,506
Machinery and equipment	311,853	303,625	301,874	286,203	396,538	426,930
Titled vehicles	20	213	0	0	0	0
Other intermediate assets	72,199	72,832	60,686	51,386	73,156	82,113
<b>Total intermediate farm assets</b>	<b>1,158,918</b>	<b>1,213,194</b>	<b>1,094,668</b>	<b>1,087,171</b>	<b>1,241,861</b>	<b>1,359,549</b>
<b>Long Term Farm Assets</b>						
Farm land	381,014	402,132	388,181	402,068	417,079	486,861
Buildings and improvements	359,916	341,960	368,048	369,281	468,833	444,751
Other long-term assets	3,944	4,461	3,922	4,397	2,533	2,607
<b>Total long-term farm assets</b>	<b>744,873</b>	<b>748,553</b>	<b>760,152</b>	<b>775,746</b>	<b>888,445</b>	<b>934,218</b>
<b>Total Farm Assets</b>	<b>2,359,182</b>	<b>2,436,929</b>	<b>2,184,821</b>	<b>2,191,533</b>	<b>2,707,676</b>	<b>2,878,265</b>
<b>Total Nonfarm Assets</b>	<b>127,099</b>	<b>137,597</b>	<b>44,071</b>	<b>44,160</b>	<b>36,340</b>	<b>41,684</b>
<b>Total Assets</b>	<b>2,486,281</b>	<b>2,574,526</b>	<b>2,228,892</b>	<b>2,235,692</b>	<b>2,744,016</b>	<b>2,919,949</b>
<b>Liabilities</b>						
<b>Current Farm Liabilities</b>						
Accrued interest	306	768	603	822	337	980
Accounts payable	42,679	42,254	43,424	49,027	19,408	26,735
Current notes	129,912	139,938	101,400	111,950	140,174	153,301
Government crop loans	0	854	0	0	0	3,320
Principal due on term debt	109,925	132,300	121,612	103,626	115,797	165,318
<b>Total current farm liabilities</b>	<b>282,823</b>	<b>316,114</b>	<b>267,039</b>	<b>265,425</b>	<b>275,716</b>	<b>349,654</b>
<b>Total intermediate farm liabs</b>	<b>315,210</b>	<b>298,791</b>	<b>291,650</b>	<b>212,403</b>	<b>382,621</b>	<b>356,194</b>
<b>Total long term farm liabilities</b>	<b>636,333</b>	<b>670,623</b>	<b>780,434</b>	<b>930,209</b>	<b>835,030</b>	<b>828,463</b>
<b>Total farm liabilities</b>	<b>1,234,366</b>	<b>1,285,528</b>	<b>1,339,123</b>	<b>1,408,037</b>	<b>1,493,367</b>	<b>1,534,311</b>
<b>Total nonfarm liabilities</b>	<b>11,049</b>	<b>13,694</b>	<b>11,791</b>	<b>25,086</b>	<b>300</b>	<b>300</b>
<b>Total liabilities</b>	<b>1,245,415</b>	<b>1,299,222</b>	<b>1,350,913</b>	<b>1,433,123</b>	<b>1,493,667</b>	<b>1,534,611</b>
<b>Net worth (farm and nonfarm)</b>	<b>1,240,866</b>	<b>1,275,304</b>	<b>877,978</b>	<b>802,569</b>	<b>1,250,350</b>	<b>1,385,339</b>
<b>Net worth change</b>		<b>34,438</b>		<b>-75,409</b>		<b>134,989</b>
<b>Ratio Analysis</b>						
Current farm liabilities / assets	62 %	67 %	81 %	81 %	48 %	60 %
Curr. & interm farm liab. / assets	37 %	36 %	39 %	34 %	36 %	36 %
Long term farm liab. / assets	85 %	90 %	103 %	120 %	94 %	89 %
Total debt to asset ratio	50 %	50 %	61 %	64 %	54 %	53 %



Table 52

Balance Sheet at Market Values  
**Michigan Dairy, 250 Plus Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms		Low 25%		High 25%	
	35 Beginning	Ending	8 Beginning	Ending	9 Beginning	Ending
Number of farms						
<b>Assets</b>						
<b>Current Farm Assets</b>						
Cash and checking balance	32,031	39,313	30,589	30,675	34,312	46,214
Prepaid expenses & supplies	58,288	54,993	8,960	10,166	48,809	58,854
Growing crops	12,645	15,450	14,481	18,847	17,811	18,606
Accounts receivable	57,949	67,183	31,609	42,561	104,264	107,104
Hedging accounts	1,809	1,905	0	0	6,117	7,344
Crops held for sale or feed	268,622	275,778	236,098	217,710	300,290	299,470
Crops under government loan	0	854	0	0	0	3,320
Market livestock held for sale	16,768	18,652	8,265	8,283	39,389	43,586
Other current assets	7,278	1,055	0	375	26,378	0
<b>Total current farm assets</b>	<b>455,391</b>	<b>475,182</b>	<b>330,002</b>	<b>328,616</b>	<b>577,370</b>	<b>584,498</b>
<b>Intermediate Farm Assets</b>						
Breeding livestock	786,226	852,378	732,108	762,181	803,478	888,194
Machinery and equipment	545,473	562,513	563,642	538,472	647,529	693,026
Titled vehicles	1,229	3,200	0	0	1,667	1,667
Other intermediate assets	72,256	73,705	60,686	51,386	73,267	85,397
<b>Total intermediate farm assets</b>	<b>1,405,183</b>	<b>1,491,796</b>	<b>1,356,436</b>	<b>1,352,039</b>	<b>1,525,941</b>	<b>1,668,284</b>
<b>Long Term Farm Assets</b>						
Farm land	1,132,667	1,198,393	918,350	932,237	1,077,973	1,269,632
Buildings and improvements	500,829	518,275	510,983	521,318	427,667	498,819
Other long-term assets	4,950	5,971	3,922	4,397	3,089	3,162
<b>Total long-term farm assets</b>	<b>1,638,446</b>	<b>1,722,639</b>	<b>1,433,255</b>	<b>1,457,952</b>	<b>1,508,730</b>	<b>1,771,613</b>
<b>Total Farm Assets</b>	<b>3,499,020</b>	<b>3,689,616</b>	<b>3,119,693</b>	<b>3,138,608</b>	<b>3,612,040</b>	<b>4,024,396</b>
<b>Total Nonfarm Assets</b>	<b>222,342</b>	<b>235,085</b>	<b>56,333</b>	<b>56,422</b>	<b>95,370</b>	<b>104,767</b>
<b>Total Assets</b>	<b>3,721,362</b>	<b>3,924,701</b>	<b>3,176,026</b>	<b>3,195,030</b>	<b>3,707,410</b>	<b>4,129,163</b>
<b>Liabilities</b>						
<b>Current Farm Liabilities</b>						
Accrued interest	306	768	603	822	337	980
Accounts payable	42,679	42,254	43,424	49,027	19,408	26,735
Current notes	129,912	139,938	101,400	111,950	140,174	153,301
Government crop loans	0	854	0	0	0	3,320
Principal due on term debt	109,925	132,300	121,612	103,626	115,797	165,318
<b>Total current farm liabilities</b>	<b>282,823</b>	<b>316,114</b>	<b>267,039</b>	<b>265,425</b>	<b>275,716</b>	<b>349,654</b>
<b>Total intermediate farm liabs</b>	<b>315,210</b>	<b>298,791</b>	<b>291,650</b>	<b>212,403</b>	<b>382,621</b>	<b>356,194</b>
<b>Total long term farm liabilities</b>	<b>636,333</b>	<b>670,623</b>	<b>780,434</b>	<b>930,209</b>	<b>835,030</b>	<b>828,463</b>
<b>Total farm liabilities</b>	<b>1,234,366</b>	<b>1,285,528</b>	<b>1,339,123</b>	<b>1,408,037</b>	<b>1,493,367</b>	<b>1,534,311</b>
<b>Total nonfarm liabilities</b>	<b>11,049</b>	<b>13,694</b>	<b>11,791</b>	<b>25,086</b>	<b>300</b>	<b>300</b>
<b>Total liabs excluding deferreds</b>	<b>1,245,415</b>	<b>1,299,222</b>	<b>1,350,913</b>	<b>1,433,123</b>	<b>1,493,667</b>	<b>1,534,611</b>
<b>Total deferred liabilities</b>	<b>21,824</b>	<b>21,524</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total liabilities</b>	<b>1,267,239</b>	<b>1,320,745</b>	<b>1,350,913</b>	<b>1,433,123</b>	<b>1,493,667</b>	<b>1,534,611</b>
<b>Retained earnings</b>	<b>1,240,866</b>	<b>1,275,304</b>	<b>877,978</b>	<b>802,569</b>	<b>1,250,350</b>	<b>1,385,339</b>
<b>Market valuation equity</b>	<b>1,213,257</b>	<b>1,328,651</b>	<b>947,134</b>	<b>959,338</b>	<b>963,394</b>	<b>1,209,214</b>
<b>Net worth (farm and nonfarm)</b>	<b>2,454,123</b>	<b>2,603,956</b>	<b>1,825,113</b>	<b>1,761,907</b>	<b>2,213,743</b>	<b>2,594,553</b>
<b>Net worth excluding deferreds</b>	<b>2,475,947</b>	<b>2,625,479</b>	<b>1,825,113</b>	<b>1,761,907</b>	<b>2,213,743</b>	<b>2,594,553</b>
<b>Net worth change</b>		<b>149,833</b>		<b>-63,206</b>		<b>380,809</b>
<b>Ratio Analysis</b>						
Current farm liabilities / assets	62 %	67 %	81 %	81 %	48 %	60 %
Curr. & interm farm liab. / assets	32 %	31 %	33 %	28 %	31 %	31 %
Long term farm liab. / assets	39 %	39 %	54 %	64 %	55 %	47 %
Total debt to asset ratio	34 %	34 %	43 %	45 %	40 %	37 %
Debt to assets excl deferreds	33 %	33 %	43 %	45 %	40 %	37 %

Table 53

Statement Of Cash Flows  
**Michigan Dairy, 250 Plus Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	35	8	9
Beginning cash (farm & nonfarm)	32,031	30,589	34,312
<b>Cash From Operating Activities</b>			
Gross cash farm income	1,483,818	1,241,914	1,689,336
Net nonfarm income	11,810	14,246	9,587
Total cash farm expense	-1,272,805	-1,152,942	-1,371,209
Apparent family living expense	-89,779	-80,236	-75,485
Income and social security tax	-4,580	-888	-4,217
Cash from operations	128,463	22,094	248,012
<b>Cash From Investing Activities</b>			
Sale of breeding livestock	9,241	19,438	9,596
Sale of machinery & equipment	3,589	1,402	5,467
Sale of titled vehicles	-	-	-
Sale of farm land	-	-	-
Sale of farm buildings	247	-	-
Sale of other farm assets	20,763	58,782	7,621
Sale of nonfarm assets	872	3,773	38
Purchase of breeding livestock	-48,165	-26,644	-49,845
Purchase of machinery & equip.	-78,102	-48,784	-116,435
Purchase of titled vehicles	-406	-	-
Purchase of farm land	-14,555	-13,969	-44,184
Purchase of farm buildings	-36,698	-38,184	-53,854
Purchase of other farm assets	-26,100	-51,552	-16,579
Purchase of nonfarm assets	-6,127	-3,773	-3,062
Cash from investing activities	-175,440	-99,510	-261,237
<b>Cash From Financing Activities</b>			
Money borrowed	366,725	615,259	370,031
Cash gifts and inheritances	4,721	1,160	-554
Principal payments	-311,126	-538,917	-330,470
Dividends paid	-	-	-
Gifts given	-6,063	-	-13,878
Cash from financing activities	54,259	77,502	25,128
Net change in cash balance	7,282	86	11,903
Ending cash (farm & nonfarm)	39,313	30,675	46,214

Table 54

Financial Standards Measures  
**Michigan Dairy, 250 Plus Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	35	8	9
Liquidity			
Current ratio	1.50	1.24	1.67
Working capital	159,068	63,192	234,844
Solvency (market)			
Farm debt to asset ratio	35 %	45 %	38 %
Farm equity to asset ratio	65 %	55 %	62 %
Farm debt to equity ratio	55 %	81 %	62 %
Profitability (cost)			
Rate of return on farm assets	3.6 %	-1.6 %	7.1 %
Rate of return on farm equity	1.9 %	-13.5 %	9.8 %
Operating profit margin	7.3 %	-3.9 %	14.5 %
Net farm income	104,692	-9,652	185,032
Repayment Capacity			
Term debt coverage ratio	112 %	41 %	168 %
Capital replacement margin	18,769	-107,658	119,470
Efficiency			
Asset turnover rate (cost)	49.2 %	41.8 %	49.0 %
Operating expense ratio	80.8 %	87.4 %	77.4 %
Depreciation expense ratio	7.9 %	7.4 %	7.2 %
Interest expense ratio	4.3 %	6.0 %	4.3 %
Net farm income ratio	7.0 %	-0.8 %	11.0 %

Table 55

Operator and Labor Information  
**Michigan Dairy, 250 Plus Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	35	8	9
Operator Information			
Average number of operators	1.8	2.1	1.6
Average age of operators	50.9	48.9	49.3
Average number of years farming	28.6	28.8	26.6
Results Per Operator			
Working capital	86,991	29,737	150,971
Total assets (market)	2,146,321	1,503,543	2,654,462
Total liabilities	722,283	674,411	986,535
Net worth (market)	1,424,038	829,133	1,667,927
Net worth excl deferred liabs	1,435,809	829,133	1,667,927
Gross farm income	820,106	583,170	1,076,475
Total farm expense	762,852	587,712	957,525
Net farm income	57,254	-4,542	118,949
Net nonfarm income	6,458	6,704	6,163
Family living & tax withdrawals	51,603	38,176	51,237
Total acres owned	370.9	359.8	369.5
Total crop acres	660.5	475.8	1,063.0
Crop acres owned	390.1	315.6	689.0
Crop acres cash rented	270.4	160.2	374.0
Crop acres share rented	-	-	-
Total pasture acres	6.6	4.4	2.1
Labor Analysis			
Number of farms	34	8	9
Total unpaid labor hours	5,583	5,631	4,879
Total hired labor hours	19,356	15,400	23,041
Total labor hours per farm	24,940	21,031	27,920
Unpaid hours per operator	3,013	2,650	3,136
Value of farm production / hour	46.70	43.47	48.99
Net farm income / unpaid hour	18.42	-1.71	37.93
Partnerships			
Number of farms	17	6	3
Number of operators	2.3	2.3	-
Owner withdrawals per farm	-	-	-
Withdrawals per operator	-	-	-

Table 56

Financial Summary  
**Michigan Dairy, 250 Plus Cows, 2003**  
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	35	8	9
<b>Income Statement</b>			
Gross cash farm income	1,483,818	1,241,914	1,689,336
Total cash farm expense	1,272,805	1,152,942	1,371,209
Net cash farm income	211,013	88,972	318,126
Inventory change	12,473	-7,293	-12,745
Depreciation and capital adjust	-118,793	-91,331	-120,350
Net farm income	104,692	-9,652	185,032
<b>Profitability (cost)</b>			
Labor and management earnings	35,717	-60,220	108,284
Rate of return on assets	3.6 %	-1.6 %	7.1 %
Rate of return on equity	1.9 %	-13.5 %	9.8 %
Operating profit margin	7.3 %	-3.9 %	14.5 %
Asset turnover rate	49.2 %	41.8 %	49.0 %
<b>Profitability (market)</b>			
Labor and management earnings	79,083	-102,783	288,537
Rate of return on assets	5.6 %	-0.8 %	11.5 %
Rate of return on equity	5.8 %	-5.6 %	15.9 %
Operating profit margin	16.9 %	-2.6 %	32.1 %
Asset turnover rate	32.8 %	29.2 %	35.8 %
<b>Liquidity</b>			
Ending current ratio	1.50	1.24	1.67
Ending working capital	159,068	63,192	234,844
End working capital to gross inc	10.7 %	5.1 %	13.9 %
Term debt coverage ratio	111.6 %	40.6 %	167.5 %
Expense as a percent of income	85.1 %	93.4 %	81.8 %
Interest as a percent of income	4.3 %	6.0 %	4.3 %
<b>Solvency (cost)</b>			
Number of farms	35	8	9
Ending farm assets	2,436,929	2,191,533	2,878,265
Ending farm liabilities	1,285,528	1,408,037	1,534,311
Ending total assets	2,574,526	2,235,692	2,919,949
Ending total liabilities	1,299,222	1,433,123	1,534,611
Ending net worth	1,275,304	802,569	1,385,339
Net worth change	34,438	-75,409	134,989
Ending farm debt to asset ratio	53 %	64 %	53 %
Beg total debt to asset ratio	50 %	61 %	54 %
End total debt to asset ratio	50 %	64 %	53 %
<b>Solvency (market)</b>			
Number of farms	35	8	9
Ending farm assets	3,689,616	3,138,608	4,024,396
Ending farm liabilities	1,307,053	1,408,037	1,534,311
Ending total assets	3,924,701	3,195,030	4,129,163
Ending total liabilities	1,320,745	1,433,123	1,534,611
Ending net worth	2,603,956	1,761,907	2,594,553
Net worth change	149,833	-63,206	380,809
Ending farm debt to asset ratio	35 %	45 %	38 %
Beg total debt to asset ratio	34 %	43 %	40 %
End total debt to asset ratio	34 %	45 %	37 %
<b>Nonfarm Information</b>			
Net nonfarm income	11,810	14,246	9,587
<b>Crop Acres</b>			
Total acres owned	731	791	619
Total crop acres	1,335	1,340	1,665
Total crop acres owned	713	671	1,072
Total crop acres cash rented	716	655	1137
Total crop acres share rented	-	-	-