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# Staff Paper

2004 Michigan Dairy Farm Business Analysis Summary

> **Eric Wittenberg Christopher Wolf**

**Staff Paper 2005-10** 

September 2005



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Staff Paper No. 05-10 September 2005

by

Eric Wittenberg and Christopher Wolf

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

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<sup>&</sup>lt;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. Greenstone Farm Credit Services 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.

#### Summary

This report summarizes the financial and production records of 144 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 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. While considerable variation in the data exist, average values are reported in the summary tables and discussion that follows.

In 2004, the average dairy farm in the business analysis had 196 cows producing an average of 20,341 pounds of milk per cow (Table 1). Milk price, based on gross income, averaged \$16.42/cwt. Milk production was down slightly from 2003 while milk price was up almost \$4/cwt.

Table 1. Average Michigan Dairy Farm Business Analysis Characteristics, 2000-2004

•		•		
2000	2001	2002	2003	2004
203	188	206	196	199
19,726	19,899	20,251	20,638	20,341
13.02	15.23	12.47	12.59	16.42
442	456	451	452	440
532	613	757	761	751
150	158	150	141	144
	203 19,726 13.02 442 532	203 188 19,726 19,899 13.02 15.23 442 456 532 613	203 188 206 19,726 19,899 20,251 13.02 15.23 12.47 442 456 451 532 613 757	203     188     206     196       19,726     19,899     20,251     20,638       13.02     15.23     12.47     12.59       442     456     451     452       532     613     757     761

Net farm income is the return to operator unpaid management, labor and capital invested. Net farm income in 2004 averaged \$121,120 which was 111 percent increase over the 2003 average. 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 \$223,315 while those in the bottom 25 percent had \$22,210. Gross cash farm income averaged \$838,669 in 2004. The largest component of these revenues were milk sales which averaged \$704,241.

Table 2. Average Michigan Dairy Farm Income Statement, 2000-2004

	2000	2001	2002	2003	2004
			(\$)		
Gross cash farm income	677,530	711,077	705,145	695,048	838,669
- Total cash expense	<u>547,516</u>	<u>562,466</u>	<u>589,830</u>	<u>584,107</u>	672,012
= Net cash farm income	130,013	148,610	115,314	110,941	166,657
+ Inventory change*	2,125	5,511	-18,757	2,197	31,880
+ Depreciation + capital adjustments*	<u>-48,158</u>	<u>-67,364</u>	<u>-64,923</u>	<u>-55,619</u>	<u>-77,417</u>
= Net farm income	83,890	86,758	31,635	57,519	121,120

<sup>\*</sup>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 2004 dairy farm ROA (Market) was 7.7 percent which was much improved over 2002 and 2003 and in line with 2001 which was also a high milk price year. 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 2004, Michigan dairy farms generated 23.3 cents of profit per dollar of revenue. Asset turnover (ATO) is the gross farm revenues divided by average asset value. Asset turnover measures the efficiency with which farm assets generate revenue. The average ATO value was a healthy 32.9 percent in 2004.

Table 3. Average Michigan Dairy Farm Profitability Indicators, 2000-2004

	2000	2001	2002	2003	2004
			(percent)		
Rate of return on assets*	7.1	7.6	3.2	4.3	7.7
Rate of return on equity	7.1	8.1	2.1	4.1	9.1
Operating profit margin	21.4	22.3	11.0	14.9	23.3
Asset turnover rate*	33.3	33.9	29.3	29.0	32.9

<sup>\*</sup> Assets valued at market value.

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.

Table 4 contains the average income and expense items across all 144 dairy farms in the 2004 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\*, 2004

Income Items:	Per cwt.	Per cow
Milk	\$16.42	\$3,329.31
Cull Cows and Calves	\$1.01	\$183.37
Dairy Steers	\$0.42	\$69.86
Dairy Heifers	\$0.15	\$27.79
Government Payments	\$0.71	\$129.95
Patronage Dividends, cash	\$0.08	\$17.53
Crop Sales	\$0.95	\$159.43
Other Cash Income	\$1.07	\$148.69
Expense Items:	Per cwt.	Per cow
Purchased Feeds	\$4.36	\$890.84
Breeding Fees	\$ 0.13	\$28.72
Veterinary	\$0.46	\$96.78
BST	\$0.02	\$4.13
Livestock Supplies	\$0.78	\$147.74
DHIA	\$0.02	\$3.57
Milk & Livestock Mkt. & Trucking	\$0.79	\$156.78
Interest	\$0.90	\$157.54
Fuel and Oil	\$0.66	\$121.35
Repairs	\$1.27	\$241.43
Custom Hire	\$0.54	\$109.43
Hired Labor	\$2.27	\$465.43
Leases	\$0.16	\$34.10
Real Estate Taxes	\$0.27	\$47.99
Farm Insurance	\$0.43	\$74.19
Utilities	\$0.44	\$84.68
Dues, Professional Fees	\$0.16	\$27.37
Miscellaneous	\$0.41	\$85.65
Machinery Depreciation	\$1.53	\$294.65
Building Depreciation	\$0.72	\$148.14
Expense Items per Cropped Acre:	Per acre	
Seed	\$26.90	
Fertilizer	\$64.45	
Crop Chemicals	\$15.10	
Crop Insurance	\$6.03	
Crop Miscellaneous	\$2.32	
Land Rent	\$37.79	

<sup>\*</sup> All income and expense items averaged across all 144 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\*, 2004

Income Items:	Per cwt.	Per cow
Milk	\$16.42	\$3,329.3
Cull Cows and Calves	\$1.03	\$187.27
Dairy Steers	\$1.07	\$179.65
Dairy Heifers	\$0.28	\$54.08
Government Payments	\$0.71	\$130.86
Patronage Dividends, cash	\$0.15	\$32.37
Crop Sales	\$1.60	\$270.08
Other Cash Income	\$1.14	\$157.44
Expense Items:	Per cwt.	Per cow
Purchased Feeds	\$4.36	\$890.84
Breeding Fees	\$0.17	\$35.66
Veterinary	\$0.47	\$97.45
BST	\$0.26	\$59.49
Livestock Supplies	\$0.81	\$153.05
DHIA	\$0.13	\$22.38
Milk & Livestock Mkt. & Trucking	\$0.79	\$156.78
Interest	\$0.94	\$164.39
Fuel and Oil	\$0.67	\$122.20
Repairs	\$1.27	\$241.43
Custom Hire	\$0.59	\$119.38
Hired Labor	\$2.47	\$507.74
Leases	\$0.32	\$68.21
Real Estate Taxes	\$0.29	\$52.75
Farm Insurance	\$0.43	\$74.19
Utilities	\$0.44	\$84.68
Dues, Professional Fees	\$0.17	\$28.36
Miscellaneous	\$0.41	\$87.48
Machinery Depreciation	\$1.53	\$294.65
Building Depreciation	\$0.72	\$148.14
Expense Items per Cropped Acre:	Per acre	
Seed	\$27.67	
Fertilizer	\$70.85	

<b>Expense Items per Cropped Acre:</b>	Per acre
Seed	\$27.67
Fertilizer	\$70.85
Crop Chemicals	\$16.99
Crop Insurance	\$18.09
Crop Miscellaneous	\$16.68
Land Rent	\$42.51

<sup>\*</sup> 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 \$0.26/cwt across farms with that expense compared to \$0.02/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, 24 to 99 cows, includes 37 herds. The medium size category, 100 to 249 cows, includes 76 herds. The largest size category, 250 or more cows, contains the remaining 31 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 5.7 crop acres per cow; the medium herds about 4.1 acres/cow; and the largest category about 3.1 acres/cow.

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

	24-99	100-249	250+
	cows	cows	cows
Average number of cows	70	162	444
Milk sold per cow (pounds)	17,130	21,025	22,499
Average price of milk sold (\$/cwt)	16.64	16.37	16.28
Total acres owned	342	398	659
Total crop acres	397	666	1,381
Number of farms	37	76	31

Table 7 is the average farm income statement by herd size. Net farm income represents the returns to unpaid factors (i.e., labor, management and equity capital). The smallest farms returned \$34,853; the medium farms \$108,816; and the largest farms \$254,246. The smallest herds had twice as much average net farm income as 2004; the medium herds just less than twice as large on average; while the largest herds increased by 2.5 times the 2004 average value.

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

	24-99	100-249	250+
	cows	cows	cows
	(\$)	(\$)	(\$)
Gross cash farm income	266,842	671,589	1,930,787
- Total cash expense	209,154	518,250	<u>1,601,421</u>
= Net cash farm income	57,689	153,339	329,366
+ Inventory change *	6,854	20,755	89,023
+ Depreciation and capital adjustments*	<u>-29,690</u>	<u>-65,278</u>	<u>-164,143</u>
= Net farm income	34,853	108,816	254,246

<sup>\*</sup>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 2004. The middle size group (100-249 cows) realized the largest average operating profit margin while the largest herds had the largest average asset turnover rate.

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

	24-99	100-249	250+
	cows	cows	cows
		(percent)	
Rate of return on assets*	3.5	7.7	8.9
Rate of return on equity	3.1	9.2	11.2
Operating profit margin	16.6	26.0	22.1
Asset turnover rate*	21.2	29.7	40.4

<sup>\*</sup> Assets valued at market value (rather than cost).

### A. Financial Summary Information, All 144 Farms

Table 9	Crop Production and Marketing Summary Michigan Dairy, All Sizes, 2004	
	(Farms Sorted By Rate of Return on Assets - Mkt)	

(Farms Sorted By Rat	e of Return o	on Assets - 1	Mkt)	
	Avg. Of			
	All Farms	Low 25%	High 25%	
Dairy	AII TAIMS	HOW 256	111911 250	
Number of farms	144	39	35	
Average number of Cows	199	125	266	
Milk production per Cow, lbs.	20,341	17,343		
Average milk price per cwt.,	\$16.42			
Acreage Summary				
Total acres owned	440	419	504	
Total crop acres	751	555	885	
Crop acres owned	402	302	580	
Crop acres cash rented	347	253	305	
Crop acres share rented	1	-	_	
Total pasture acres	5	0	9	
Average Price Received (Cash Sales O	nly)			
Wheat, Winter per bushel	2.95	3.13	2.85	
Corn per bushel	2.21	2.11	-	
Soybeans per bushel	6.35	6.17	6.94	
Hay, Alfalfa per ton	55.65	_	_	
Hay, Mixed per ton	9.94	_	-	
Straw per ton	10.03	_	_	
Oats per bushel	1.41	_	_	
Corn Silage per ton	23.83	-	_	

Table 10 Farm Income Statement

Michigan Dairy, All Sizes, 2004

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

	Avg. Of			
	All Farms	Low 25%	High 25%	
Number of farms	144	39	35	
Cash Farm Income				
Asparagus	69	254	_	
Barley	45	166	_	
Corn	8,139	7,989	1,463	
Corn Silage	1,101	2,622	182	
Corn, Seed	112	6	405	
Hay, Alfalfa	435	188	199	
Hay, Mixed	833	459	617	
Haylage, Mixed	525	_	909	
Oats	203	12	-	
Soybeans	8,908	5,341	7,397	
Speltz	139	_	571	
Straw	185	405	85	
Sugar Beets	1,848	638	4,326	
Wheat, Winter	3,668	3,138	3,507	
Miscellaneous crop income	110	18	72	
Beef Cow-Calf, Beef Calves	50	27	174	
Beef, Background Beef	1,891	6,981	-	
Beef, Finish Beef Calves	421	490	_	
Dairy, Milk	704,241	367,586	1,015,211	
Dairy, Dairy Calves	4,270	1,831	8,521	
Dairy Heifers (for sale)	815	671	359	
Dairy Replacement Heifers	821	62	1,928	
Dairy Steers	8,595	7,087	9,814	
Sheep, Market Lambs, Mkt Lambs	47	3	191	
Beef, Finish Cull Cows	33	123	-	
CCC market loan gain	0	0	-	
Cull breeding livestock	35,871	22,021	50,516	
Misc. livestock income	2,128	173	971	
Direct & CC govt payments	8,199	8,102	7,297	
Other government payments	14,965	9,151	18,368	
Custom work income	5,403	2,753	6,579	
Patronage dividends, cash	6,026	1,056	18,025	
Insurance income	9,554	12,434	11,609	
Other farm income	9,020	6,583	16,729	
Gross Cash Farm Income	838,669	468,370	1,186,023	

Table 10 Farm Income Statement (Continued)

Michigan Dairy, All Sizes, 2004

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

	Avg. Of		
	All Farms	Low 25%	High 25%
Number of farms	144	39	35
Cash Farm Expense			
Seed	16,711	8,660	19,168
Fertilizer	22,391	15,962	24,785
Crop chemicals	12,428	6,347	15,931
Crop insurance	1,113	517	2,362
Drying fuel	268	398	-
Crop custom hire	813	1,277	708
Crop marketing	252 1,501	5 702	733 2,482
Crop miscellaneous Feeder livestock purchase	3,468	9,211	2,462
Purchased feed	188,631	93,975	267,176
Breeding fees	5,911	2,822	8,998
Veterinary	22,352	10,304	31,436
BST	794	328	680
Supplies	30,279	20,034	44,553
DHIA	437	249	523
Livestock leases	178	482	193
Livestock utilities	221	149	461
Livestock hauling and trucking	6,824	4,455	9,750
Livestock marketing	21,963	13,281	27,674
Bedding	735	104	231
Livestock miscellaneous	88		121
Interest	31,352	25,904	30,423
Packaging and supplies	281	315	650
Fuel & oil	22,881	15,122	28,322
Repairs	48,534	33,979	66,997
Custom hire	25,728	11,910	42,630
Hired labor	112,837	61,176	173,203
Land rent	24,643	13,106	33,272
Machinery & bldg leases	6,840	3,724	8,292
Real estate taxes	7,739	6,635	7,683
Personal property taxes	191	68	681
Farm insurance	12,663	12,050	13,795
Utilities	15,625	10,284	19,515
Hauling and trucking	119	_	385
Dues & professional fees	4,584	3,662	5,470
Hedging account deposits	2,219	-	4,527
Miscellaneous	18,418	10,031	24,702
Total cash expense	672,012	397,226	918,724
Net cash farm income	166,657	71,143	267,300
Inventery Changes			
Inventory Changes Crops and feed	12 001	0.5.4	26 502
Market livestock	13,001	-954 -995	36,583
Accounts receivable	1,181 6,501	-965	2,816 13,959
Prepaid expenses and supplies	5,511	-885	16,584
Accounts payable	5,686	-1,290	9,241
Total inventory change	31,880	-5,088	79,183
Net operating profit	198,537	66,055	346,483
Net operating profit	100,007	00,033	310,103
Depreciation and Other Capital Adjust	ments		
Breeding livestock	9,005	2,552	5,215
Machinery and equipment	-56,902	-21,639	-87,271
Buildings and improvements	-29,727	-26,217	-40,950
Other farm capital	207	1,459	-161
Total depr. and other capital adj	-77,417	-43,846	-123,168
Note Form to some	101 100	22 212	222 215
Net farm income	121,120	22,210	223,315

Table 11 Inventory Changes

Michigan Dairy, All Sizes, 2004

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

(Farms Sorted By Rate of Return on Assets - Mkt)						
	Avg. Of All Farms	Low 25%	High 25%			
Number of farms	144	35	37			
Net cash farm income	166,657	69,342	256,926			
Crops and Feed						
Ending inventory	152,437		190,687			
Beginning inventory	139,436	106,959	156,082			
Inventory change	13,001	-1,991	34,605			
Market Livestock						
Ending inventory	14,128	18,003	14,132			
Beginning inventory	12,947	19,111	11,464			
Inventory change	1,181	-1,108	2,667			
Accts Receivable & Other Current Ass	ets					
Ending inventory	45,482	25,711	52,514			
Beginning inventory	38,982	25,236	39,295			
Inventory change	6,501	475	13,219			
Prepaid Expenses and Supplies						
Ending inventory	24,717	6,840	51,993			
Beginning inventory	19,206	6,470	36,677			
Inventory change	5,511	369	15,316			
Accounts Payable & Accrued Expenses						
Beginning inventory	26,454	16,253	18,641			
Ending inventory	20,769	19,156	9,756			
Inventory change	5,686	-2,903	8,885			
Total inventory change	31,880	-5,158	74,692			
Net operating profit	198,537	64,184	331,618			

Table 12 Depreciation and Other Capital Adjustments

Michigan Dairy, All Sizes, 2004

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

	Avg. Of	- 050	! 1 050
	All Farms	Low 25%	High 25%
Number of farms	144	35	37
Net operating profit	198,537	64,184	331,618
Breeding Livestock			
Ending inventory	444,656	290,998	568,084
Capital sales	7,249	895	6,118
Beginning inventory	426,810	274,795	543,510
Capital purchases	16,089	14,625	
Depreciation, capital adjust.		2,473	
Machinery and Equipment			
Ending inventory	166,386	114,562	223,124
Capital sales	3,021	1,415	3.768
Beginning inventory	148,904	103,052	186,787
Capital purchases		33,090	124,407
Depreciation, capital adjust.	-56,902	-20,166	-84,301
Buildings and Improvements			
Ending inventory	169,147	113,491	230,563
Capital sales	633	, –	· –
Beginning inventory	155,834	77,790	226,217
Capital purchases	43,673	64,410	43,212
Depreciation, capital adjust.	-29,727		
Other Capital Assets			
Ending inventory	46.146	22,431	73,586
Capital sales	7,789		2,032
Beginning inventory	•	36,806	
Capital purchases	11,877		
Depreciation, capital adjust.	207	1,997	
Total depreciation, capital adj.	-77,417	-44,404	-117,675
Net farm income	121,120	19,780	213,942

Table 13 Profitability Measures
Michigan Dairy, All Sizes, 2004

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

(Taling Boleca By Race	c or itecarii t	311 1100000	THIC)	
	3 05			
	Avg. Of	T 050	TT' 1- 050	
	All Farms	Low 25%	High 25%	
Number of farms	144	35	37	
Profitability (assets valued at cost	<b>-</b> )			
Net farm income	121,120	19,780	213,942	
Labor and management earnings	82,478	-5,259	160,464	
Rate of return on assets	7.0 %	-0.7 %	11.7 %	
Rate of return on equity	9.3 %	-8.1 %	17.0 %	
Operating profit margin	13.4 %	-2.0 %	19.3 %	
Asset turnover rate	52.3 %	37.1 %	60.6 %	
Interest on farm net worth	38,642	25,039	53,478	
Farm interest expense	31,443	25,778	29,409	
Value of operator lbr and mgmt.	61,884	52,712	63,366	
Return on farm assets	90,679	-7,154		
Average farm assets	1,293,926	967,366	1,541,587	
Return on farm equity	59,236	-32,932	150,576	
Average farm equity	634,253	404,564	887,286	
Value of farm production	676,258	358,681	934,507	
	Avg. Of All Farms	Low 25%	High 25%	
Number of farms	144	35	37	
Profitability (assets valued at mark	ket)			
Net farm income	188,071	35,101	384,578	
Labor and management earnings	104,808	-40,033	285,595	
Rate of return on assets	7.7 %	0.4 %	15.2 %	
Rate of return on equity	9.1 %	-1.4 %	19.5 %	
Operating profit margin	23.3 %	2.3 %	37.5 %	
Asset turnover rate	32.9 %	19.7 %	40.6 %	
Interest on farm net worth	83,263	75,135	98,983	
Farm interest expense	31,443	25,778		
Value of operator lbr and mgmt.	61,884	52,712	63,366	
Return on farm assets	157,631	8,167	•	
Average farm assets	2,055,724	1,822,621	2,304,020	
Return on farm equity	126,188			
Average farm equity	1,387,719			
Value of farm production	676,258	358,681	934,507	
<del>-</del>		-		

Table 14 Liquidity Measures

Michigan Dairy, All Sizes, 2004

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

, , , , , , , , , , , , , , , , , , , ,			- ,	
	Avg. Of			
	All Farms	Low 25%	High 25%	
Number of farms	144	35	37	
Liquidity (cash)				
Net cash farm income	166,657	69,342	256,926	
Net nonfarm income	7,960	9,732	12,273	
Family living and taxes	55,120	39,658	71,410	
Principal due on long term debt	21,177	12,604	21,053	
Cash available for interm. debt	98,320	26,813	176,737	
Average intermediate debt	201,880	160,331	254,930	
Years to turnover interm. debt	2.1	6.0	1.4	
Expense as a % of income	80 %	85 %	77 %	
Interest as a % of income	4 %	6 %	3 %	
Liquidity (accrual)				
Total accrual farm income	859,352	456,834	1,184,126	
Total accrual operating expense	660,815	392,650	852,509	
Net accrual operating income	198,537	64,184	331,618	
Net nonfarm income	7,960	9,732	12,273	
Family living and taxes	55,120	39,658	71,410	
Principal due on long term debt	21,177	12,604	21,053	
Available for intermediate debt	130,200	21,655	251,429	
Average intermediate debt	201,880	160,331	254,930	
Years to turnover interm. debt	1.6	7.4	1.0	
Expense as a % of income	77 %	86 %	72 %	
Interest as a % of income	4 %	6 %	2 %	

Table 15

Balance Sheet at Cost Values

Michigan Dairy, All Sizes, 2004

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

	Avg.	Of				
	All Far		Low 2	5%	High 2	5%
Number of farms	14	4	3!	5	3'	7
	Beginning	Ending	Beginning	Ending	Beginning	Ending
Assets						
Current Farm Assets	20 202	20 201	11 602	0 420	20 077	10 110
Cash and checking balance Prepaid expenses & supplies	20,203 19,206	20,291 24,717	11,603 6,470	8,420 6,840	30,077 36,677	19,112 51,993
Growing crops	9,280	9,355	7,753	7,713	7,910	9,178
Accounts receivable	29,093		17,429	17,936		
Hedging accounts	233		17,120	17,550	554	
Crops held for sale or feed	138,903		105,624	104,214		
Crops under government loan	532		1,336	754	0	179
Market livestock held for sale	12,947		19,111	18,003	11,464	14,132
Other current assets	376	704	55	62	885	517
Total current farm assets	230,773	257,055	169,380	163,942	273,596	328,438
Intermediate Farm Assets						
Breeding livestock	426,810	444,656	274,795	290,998	543,510	
Machinery and equipment	148,680	166,175	103,052	114,562	185,991	
Titled vehicles	224			0		
Other intermediate assets	34,194					
Total intermediate farm assets	609,909	648,293	408,114	419,416	773,998	856,579
Long Term Farm Assets						
Farm land	232,171					
Buildings and improvements	155,834					
Other long-term assets	7,657		6,540	8,574		
Total long-term farm assets	395,662	446,161	351,758	422,123	398,688	451,875
Total Farm Assets	1,236,343	1,351,510	929,252	1,005,481	1,446,282	1,636,892
Total Nonfarm Assets	80,494	89,912	73,937	57,270	90,214	109,473
Total Assets	1,316,837	1,441,421	1,003,189	1,062,751	1,536,496	1,746,364
Liabilities						
Current Farm Liabilities						
Accrued interest	774		416	308	526	
Accounts payable	25,681		15,836	18,848	18,115	
Current notes	71,294		76,238	60,857		
Government crop loans	532		1,336	638	0	
Principal due on term debt	61,424		44,847			
Total current farm liabilities	159,705	150,194	138,672	137,143	102,312	149,076
Total intermediate farm liabs	155,901	161,896	137,518	119,478	184,319	
Total long term farm liabilities	330,522	361,127	255,717	337,075	288,720	•
Total farm liabilities	646,128	673,218	531,908	593,696	635,352	673,251
Total nonfarm liabilities	6,306	6,903	784	971	2,736	2,725
Total liabilities	652,435	680,121	532,692	594,667		
Net worth (farm and nonfarm)	664,403	761,300	470,497	468,084	898 400	1,070,388
Net worth change	001,103	96,897	170,157	-2,413	0,00,100	171,979
Ratio Analysis						
Current farm liabilities / assets	69 %	58 %	82 %	84 %	59 %	45 %
Curr. & interm farm liab. / assets	38 %	34 %	48 %	44 %	33 %	31 %
Long term farm liab. / assets	84 %	81 %	73 %	80 %	72 %	69 %
Total debt to asset ratio	50 %	47 %	53 %	56 %	42 %	39 %

Table 16

Balance Sheet at Market Values

Michigan Dairy, All Sizes, 2004

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

(Fai	THIS SOFTE		e or ket	urn on A	ssels -	MKL)
	Avg. All Farn		Low 2	5%	High 2	5%
Number of farms	14		3		3	
No. of the Control of	Beginning	Ending	Beginning	Ending	Beginning	Ending
Assets Current Farm Assets						
Cash and checking balance	20,203	20,291	11,603	8,420	30,077	19,112
Prepaid expenses & supplies	19,206	24,717				
Growing crops	9,280	9,355				
Accounts receivable	29,093					
Hedging accounts	233	98				
Crops held for sale or feed	138,903					
Crops under government loan	532	437				
Market livestock held for sale	12,947					
Other current assets	376	704				
Total current farm assets	230,773	257,055	169,380	163,942	273,596	328,438
Intermediate Farm Assets						
Breeding livestock	433,038	454,721	275,103	291,648	562,569	604,772
Machinery and equipment	329,841	370,585	306,123	326,620	333,258	406,016
Titled vehicles	1,706	2,179	1,526	1,834	3,147	3,530
Other intermediate assets	36,741	40,320	30,947	14,619	45,296	68,640
Total intermediate farm assets	801,326	867,806	613,698	634,720	944,270	1,082,958
Long Term Farm Assets						
Farm land	669,335	734,456	843,945	877,946	592,688	732,327
Buildings and improvements	253,744	276,173			302,431	329,284
Other long-term assets	9,599			9,510		
Total long-term farm assets		1,021,810		1,069,787		1,073,246
Total Farm Assets	1,964,777	2,146,671	1,776,792	1,868,449	2,123,397	2,484,642
Total Nonfarm Assets	149,814	163,315				167,765
Total Assets	2,114,592	2,309,987	1,956,168	2,035,318	2,275,926	2,652,407
Liabilities						
Current Farm Liabilities		0.55				
Accrued interest	774					
Accounts payable	25,681	19,904				
Current notes	71,294					
Government crop loans	532	409				
Principal due on term debt	61,424					
Total current farm liabilities	159,705	150,194	138,672	137,143	162,312	149,076
Total intermediate farm liabs	155,901	161,896	137,518			•
Total long term farm liabilities	330,522	361,127	255,717	337,075	288,720	310,579
Total farm liabilities	646,128	673,218	531,908	593,696	635,352	673,251
Total nonfarm liabilities	6,306	6,903	784	971	2,736	2,725
Total liabs excluding deferreds	652,435	680,121	532,692	594,667	638,087	675,977
Total deferred liabilities	8,693	8,475	8,640	8,747	0	0
Total liabilities	661,128	688,597	541,331	603,413	638,087	675,977
Retained earnings	664,403	761,300	470,497	468,084	898,409	1,070,388
Market valuation equity	789,061	860,090	944,339	963,820	739,430	906,043
Net worth (farm and nonfarm)				1,431,905		
Net worth excluding deferreds	1,462,157	1,629,866	1,423,476	1,440,651	1,637,839	1,976,431
Net worth change		167,926		17,068		338,592
Ratio Analysis						
Current farm liabilities / assets	69 %	58 %			59 %	45 %
Curr. & interm farm liab. / assets	31 %	28 %				26 %
Long term farm liab. / assets	35 %	35 %			32 %	29 %
Total debt to asset ratio	31 %	30 %			28 %	25 %
Debt to assets excl deferreds	31 %	29 %	27 %	29 %	28 %	25 %

Table 17 Statement Of Cash Flows
Michigan Dairy, All Sizes, 2004
(Farms Sorted By Rate of Return on Assets - Mkt)

			,	
	Avg. Of All Farms	Low 25%	High 25%	
Number of farms	144	35	37	
Beginning cash (farm & nonfarm)	23,235	15,862	31,553	
Cash From Operating Activities Gross cash farm income Net nonfarm income Total cash farm expense Apparent family living expense Income and social security tax	838,669 7,960 -672,012 -51,484 -3,637	-38,544 -1,114	-876,709 -63,550 -7,859	
Cash from operations	119,497	39,417	197,790	
Cash From Investing Activities Sale of breeding livestock Sale of machinery & equipment Sale of titled vehicles Sale of farm land Sale of farm buildings Sale of other farm assets Sale of nonfarm assets Purchase of breeding livestock Purchase of machinery & equip. Purchase of titled vehicles Purchase of farm land Purchase of farm buildings Purchase of other farm assets Purchase of nonfarm assets Cash from investing activities	7,249 3,021 - 7,334 633 7,789 1,006 -16,089 -77,280 -125 -30,618 -43,673 -11,877 -8,455 -161,086	895 1,415 - 2,286 - 18,910 486 -14,625 -33,09012,757 -64,410 -2,537 -1,964 -105,390	-123,920 -486 -56,139 -43,212 -24,220 -12,297	
Cash From Financing Activities Money borrowed Cash gifts and inheritances Principal payments Dividends paid Gifts given Cash from financing activities	167,819 10,970 -134,633 - -3,379 40,777	160,011 4,484 -100,780 - -2,935 60,780	2,093 -168,357 - -6,842 41,894	
Net change in cash balance	-813	-5,194	-11,760	
Ending cash (farm & nonfarm)	22,422	10,668	19,793	

Table 18 Financial Standards Measures
Michigan Dairy, All Sizes, 2004

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

(Fallis Solved by Rat	Je of Ketulli of	I Abbetb	MICC /	
	Avg. Of All Farms	Low 25%	High 25%	
Number of farms	144	35	37	
Liquidity Current ratio Working capital	1.71 106,861	1.20 26,799		
Solvency (market) Farm debt to asset ratio Farm equity to asset ratio Farm debt to equity ratio	32 % 68 % 47 %	32 % 68 % 47 %	73 %	
Profitability (cost) Rate of return on farm assets Rate of return on farm equity Operating profit margin Net farm income	7.0 % 9.3 % 13.4 % 121,120	-8.1 % -2.0 %	17.0 % 19.3 %	
Repayment Capacity Term debt coverage ratio Capital replacement margin	197 % 88,687	84 % -10,975		
Efficiency Asset turnover rate (cost) Operating expense ratio Depreciation expense ratio Interest expense ratio Net farm income ratio	52.3 % 73.2 % 9.0 % 3.7 % 14.1 %	37.1 % 80.3 % 9.7 % 5.6 % 4.3 %	69.5 % 9.9 %	

Table 19 Operator and Labor Information
Michigan Dairy, All Sizes, 2004

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

	Avg. Of			
	All Farms	Low 25%	High 25%	
	AII PAIMS	HOW 25%	migh 25%	
Number of farms	144	35	37	
Operator Information				
Average number of operators	1.6	1.6	1.5	
Average age of operators	51.4	55.1	49.1	
Average number of years farming	27.3	30.3	23.9	
Results Per Operator				
Working capital	67,050	17,210	120,662	
Total assets (market)	1,449,403			
Total liabilities	432,061	387,513		
Net worth (market)	1,017,343	919,572		
Net worth excl deferred liabs	1,022,661	925,189	1,329,599	
Gross farm income	539,201	293,380	796,594	
Total farm expense	463,205	280,677		
Net farm income	75,997	12,703	143,925	
Net nonfarm income	4,995	6,250	8,257	
Family living & tax withdrawals	34,585	25,468	48,039	
Total acres owned	275.8	269.5	325.3	
Total crop acres	471.0	357.3	571.9	
Crop acres owned	252.3	195.5		
Crop acres cash rented	218.0	161.8	194.2	
Crop acres share rented	0.7			
Total pasture acres	3.1	0.3	5.8	
Labor Analysis				
Number of farms	144	35	37	
Total unpaid labor hours	4,870			
Total hired labor hours	8,337		11,429	
Total labor hours per farm	13,207		16,284	
Unpaid hours per operator	3,055	3,136	3,266	
Value of farm production / hour	51.21	42.84	57.39	
Net farm income / unpaid hour	24.87	4.05		
Average hourly hired labor wage	12.61	12.84	13.75	
Partnerships & LLCs				
Number of farms	47	9	12	
Number of operators	2.2	2.2	2.1	
Owner withdrawals per farm	_	_	_	
Withdrawals per operator	_	_	_	

Table 20 Financial Summary

Michigan Dairy, All Sizes, 2004

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

	Avg. Of All Farms	Low 25%	High 25%
Number of farms Income Statement	144	35	37
Gross cash farm income	838,669	459,458	1,133,635
Total cash farm expense	672,012	390,116	876,709
Net cash farm income	166,657	69,342	256,926
Inventory change	31,880	-5,158	74,692
Depreciation and capital adjust	-77,417	-44,404	-117,675
Net farm income	121,120	19,780	213,942
Profitability (cost)	121,120	13,700	213,712
Labor and management earnings	82,478	-5,259	160,464
Rate of return on assets	7.0 %	-0.7 %	11.7 %
Rate of return on equity	9.3 %	-8.1 %	17.0 %
Operating profit margin	13.4 %	-2.0 %	19.3 %
Asset turnover rate	52.3 %	37.1 %	60.6 %
Profitability (market)			
Labor and management earnings	104,808	-40,033	285,595
Rate of return on assets	7.7 %	0.4 %	15.2 %
Rate of return on equity	9.1 %	-1.4 %	19.5 %
Operating profit margin	23.3 %	2.3 %	37.5 %
Asset turnover rate	32.9 %	19.7 %	40.6 %
Liquidity			
Ending current ratio	1.71	1.20	2.20
Ending working capital	106,861	26,799	179,362
End working capital to gross inc	12.7 %	5.8 %	15.8 %
Term debt coverage ratio	197.0 %	83.7 %	297.0 %
Expense as a percent of income	76.9 %	86.0 %	72.0 %
Interest as a percent of income	3.7 %	5.6 %	2.5 %
Solvency (cost)			
Number of farms	144	35	37
Ending farm assets	1,351,510	1,005,481	1,636,892
Ending farm liabilities	673,218	593,696	673,251
Ending total assets	1,441,421	1,062,751	1,746,364
Ending total liabilities	680,121	594,667	675,977
Ending net worth	761,300	468,084	1,070,388
Net worth change	96,897	-2,413	171,979
Ending farm debt to asset ratio	50 %	59 %	41 %
Beg total debt to asset ratio	50 %	53 %	42 %
End total debt to asset ratio	47 %	56 %	39 %
Solvency (market)	1 4 4	2.5	27
Number of farms	144	35	37
Ending farm assets	2,146,671	1,868,449	2,484,642
Ending farm liabilities	681,438	601,323	673,251
Ending total assets Ending total liabilities	2,309,987 688,597	2,035,318 603,413	2,652,407 675,977
Ending total Habilities Ending net worth	1,621,390	1,431,905	1,976,431
Net worth change	167,926	17,068	338,592
Ending farm debt to asset ratio	32 %	32 %	27 %
Beg total debt to asset ratio	31 %	28 %	28 %
End total debt to asset ratio	30 %	30 %	25 %
Nonfarm Information	30 0	30 0	25 0
Net nonfarm income	7,960	9,732	12,273
Farms reporting living expenses	12	2	3
Total family living expense	47,359	_	_
Total living, invest, & capital	69,477	_	_
Crop Acres	,		
Total acres owned	440	420	484
Total crop acres	751	556	850
Total crop acres owned	402	304	562
Total crop acres cash rented	347	252	289
Total crop acres share rented	1	_	_
_			

### **B.** Financial Summary Information, Herds with 24-99 Cows

Table 21 Crop Productio	n and Marketing		
(Farms Sorted By Ra	<del>-</del>		kt)
	Avg. Of		
	_	Low 25%	High 25%
Dairy			
Number of farms	37	10	7
Average number of Cows	70	71	75
Milk production per Cow, lbs.	17,130	15,823	18,426
Average milk price per cwt.,	\$16.64	\$17.27	\$16.72
Acreage Summary			
Total acres owned	342	326	288
Total crop acres	397	320	542
Crop acres owned	242	198	307
Crop acres cash rented	155	122	235
Crop acres share rented	_	_	_
Total pasture acres	-	-	-
Average Price Received (Cash Sales	Only)		
Wheat, Winter per bushel	3.04	_	_
Soybeans per bushel	5.88	_	_
Corn per bushel	2.22	_	_

Table 22 Farm Income Statement

Michigan Dairy, 24-99 Cows, 2004

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

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	37	10	7
Cash Farm Income			
Cordwood	54	_	286
Corn	6,101	1,338	11,903
Corn Silage	228	650	276
Corn, Seed	54	-	249
Hay, Alfalfa	455	468	1,494
Hay, Mixed	1,285	380	418
Soybeans	5,018	-	16,300
Sugar Beets	3,102	_	_
Wheat, Winter	2,668	174	3,134
Miscellaneous crop income	84	_	29
Beef, Finish Beef Calves	516	_	_
Dairy, Milk	200,491	195,445	231,690
Dairy, Dairy Calves	976	97	2,150
Dairy Heifers (for sale)	1,425	1,422	1,194
Dairy Replacement Heifers	104	41	_
Dairy Steers	4,870	11,537	141
Hogs, Finish Feeder Pigs	42	157	_
Beef, Finish Cull Cows	130	481	_
Cull breeding livestock	11,925	11,840	18,720
Misc. livestock income	2,290	-	_
Direct & CC govt payments	5,732	4,782	6,225
Other government payments	5,233	1,707	10,822
Custom work income	2,250	-	10,080
Patronage dividends, cash	619	375	1,399
Insurance income	6,506	2,929	1,124
Other farm income	4,684	6,752	3,200
Gross Cash Farm Income	266,842	240,575	320,834

Table 22 Farm Income Statement (Continued)

Michigan Dairy, 24-99 Cows, 2004

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

	Avg. Of		
	All Farms	Low 25%	High 25%
Number of farms	37	10	7
Cash Farm Expense			
Seed	5,336	4,445	7,955
Fertilizer	10,613	3,840	15,570
Crop chemicals	4,961	2,442	10,031
Crop insurance	146	74	351
Drying fuel	89	-	468
Crop custom hire	660	183	1,442
Crop miscellaneous	192	_	401
Feeder livestock purchase	849	33	2,959
Purchased feed	56,537	56,287	62,295
Breeding fees	1,801	2,576	1,817
Veterinary	5,141	4,136	5,782
BST	197	-	1,043
Supplies	9,219	9,565	8,973
DHIA	450	681	357
Livestock utilities	222	-	- 1.60
Hauling and trucking	3,902	5,449	2,168
Marketing Bedding	6,616	6,158 308	9,218
5	236		10 000
Interest	13,321 478	13,886 -	18,000
Packaging and supplies			0 500
Fuel & oil Repairs	8,984 16,802	8,556 17,258	9,508 17,976
Custom hire	4,310	4,765	5,911
Hired labor	21,682	22,948	22,121
Land rent	10,230	7,111	19,454
Machinery & bldg leases	1,027	1,568	57
Real estate taxes	4,155	5,183	2,956
Farm insurance	7,005	5,016	6,784
Utilities	6,323	6,356	7,197
Dues & professional fees	2,443	2,284	2,293
Miscellaneous	5,226	4,964	4,378
Total cash expense	209,154	196,073	247,463
Net cash farm income	57,689	44,502	73,371
Inventory Changes			
Crops and feed	7,326	-4,549	29,833
Market livestock	424	1,793	733
Accounts receivable	829	109	1,946
Prepaid expenses and supplies	864	-1,050	1,112
Accounts payable	-2,589	-7,894	-1,626
Total inventory change Net operating profit	6,854 64,543	-11,591 32,911	31,999 105,369
Net operating profit	01,515	32,311	103,305
Depreciation and Other Capital Adjus	tments		
Breeding livestock	4,571	-609	5,986
Machinery and equipment	-25,643	-17,712	-37,358
Buildings and improvements	-7,979	-5,181	-7,708
Other farm capital	-639	90	-1,879
Total depr. and other capital adj	-29,690	-23,412	-40,959
Net farm income	34,853	9,499	64,411
	,	,	, -

Table 23

Inventory Changes

Michigan Dairy, 24-99 Cows, 2004

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

(Fallis Solled by Ra	ite of Keturii o	II ASSELS - M	IKC)	
	Avg. Of All Farms	Low 25%	High 25%	
	2.5	0	_	
Number of farms	37	9	10	
Net cash farm income	57,689	39,857	71,922	
Crops and Feed				
Ending inventory	61,561	40,281	91,434	
Beginning inventory	54,235	45,469	68,115	
Inventory change	7,326	-5,188	23,319	
Market Livestock				
Ending inventory	8,115	8,731	1,987	
Beginning inventory	7,691	6,965	1,629	
Inventory change	424	1,766	358	
Accts Receivable & Other Current As	sets			
Ending inventory	11,127	8,119	8,238	
Beginning inventory	10,299	8,305	7,076	
Inventory change	829	-186	1,162	
Prepaid Expenses and Supplies				
Ending inventory	7,145	944	11,497	
Beginning inventory	6,281	750	10,718	
Inventory change	864	194	779	
Accounts Payable & Accrued Expenses	\$			
Beginning inventory	5,411	6,640	7,629	
Ending inventory	8,000	15,319	8,767	
Inventory change	-2,589	-8,679	-1,138	
Total inventory change	6,854	-12,094	24,480	
Net operating profit	64,543	27,763	96,402	

Table 24 Depreciation and Other Capital Adjustments

Michigan Dairy, 24-99 Cows, 2004

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

(Fallis Soliced by Rai	te of Return o	II Abbetb	MICC)	
	Avg. Of			
	Avg. Of All Farms	T 01.1 0E%	IIiah OE&	
	AII Farms	LOW 25%	HIGH 25%	
Number of farms	37	9	10	
Net operating profit	64,543	27,763	96,402	
Breeding Livestock				
Ending inventory	155,032	146,993	166,490	
Capital sales	831	391		
Beginning inventory	148,295		154,671	
Capital purchases			2,780	
<del>-</del> -				
Depreciation, capital adjust.	4,5/1	-1,292	9,040	
Machinery and Equipment				
Ending inventory	56,033	60,821	49,042	
Capital sales	1,642	989		
Beginning inventory	56,282	59,099	44,539	
Capital purchases			39,070	
Depreciation, capital adjust.			-31,678	
Duildings and Tourisments				
Buildings and Improvements Ending inventory	44,235	51,781	62,610	
	44,235	51,761	62,610	
Capital sales		48,677		
Beginning inventory				
Capital purchases	10,446	6,774		
Depreciation, capital adjust.	-7,979	-3,670	-8,112	
Other Capital Assets				
Ending inventory	11,739	11,102	16,608	
Capital sales	1,441	_	180	
Beginning inventory	10,730	10,249	16,443	
Capital purchases	3,088	752		
Depreciation, capital adjust.	-639	100		
m + 1 1 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	22 622	01 550	20.044	
Total depreciation, capital adj.	-29,690	-21,572	-32,044	
Net farm income	34,853	6,191	64,358	

Table 25 Profitability Measures

Michigan Dairy, 24-99 Cows, 2004

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

(Tarms boreca by mae	c of Recall o	11 1100000	11.0 /	
	Avg. Of			
	All Farms	Low 25%	High 25%	
Number of farms	37	9	10	
Profitability (assets valued at cost	)			
Net farm income	34,853	6,191	64,358	
Labor and management earnings	20,763	-683	48,991	
Rate of return on assets	1.4 %	-5.6 %	7.6 %	
Rate of return on equity	-2.6 %	-36.8 %	10.2 %	
Operating profit margin	3.3 %	-13.5 %	15.6 %	
Asset turnover rate	44.0 %	41.6 %	48.3 %	
Interest on farm net worth	14,091	6,874	15,366	
Farm interest expense	13,314	14,955	15,098	
Value of operator lbr and mgmt.	40,853	45,271	38,107	
Return on farm assets	7,314	-24,124	41,349	
Average farm assets	506,432	428,486	547,287	
Return on farm equity	-6,000	-39,079	26,251	
Average farm equity	231,300	106,183	256,106	
Value of farm production	222,606	178,338	264,397	
	Avg. Of			
	All Farms	Low 25%	High 25%	
Number of farms	37	9	10	
Profitability (assets valued at mark	et)			
Net farm income	64,484	2,877	131,780	
Labor and management earnings	18,075	-30,043	94,101	
Rate of return on assets	3.5 %	-3.2 %	11.8 %	
Rate of return on equity	3.1 %	-7.7 %	14.9 %	
Operating profit margin	16.6 %	-15.4 %	41.1 %	
Asset turnover rate	21.2 %	20.5 %	28.8 %	
Interest on farm net worth	46,409	32,920	37,679	
Farm interest expense	13,314	14,955	15,098	
Value of operator lbr and mgmt.	40,853	45,271	38,107	
Return on farm assets	36,945	-27,438	108,771	
Average farm assets	1,048,618	870,964	919,159	
Return on farm equity	23,631	-42,394	93,673	
Average farm equity	773,487	548,661	627,978	
Value of farm production	222,606	178,338	264,397	

Table 26 Liquidity Measures

Michigan Dairy, 24-99 Cows, 2004

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

· · · · · · · · · · · · · · · · · · ·			·	
	Avg. Of	- 050		
	All Farms	Low 25%	High 25%	
Number of farms	37	9	10	
Liquidity (cash)				
Net cash farm income	57,689	39,857	71,922	
Net nonfarm income	10,600	21,444	10,905	
Family living and taxes	34,587	35,118	39,157	
Principal due on long term debt	8,354	9,371	10,768	
Cash available for interm. debt	25,349	16,812	32,903	
Average intermediate debt	82,432	112,126	76,202	
Years to turnover interm. debt	3.3	6.7	2.3	
Expense as a % of income	78 %	83 %	75 %	
Interest as a % of income	5 %	6 %	5 %	
Liquidity (accrual)				
Total accrual farm income	275,421	235,147	314,105	
Total accrual operating expense	210,878	207,384	217,703	
Net accrual operating income	64,543	27,763	96,402	
Net nonfarm income	10,600	21,444	10,905	
Family living and taxes	34,587	35,118	39,157	
Principal due on long term debt	8,354	9,371	10,768	
Available for intermediate debt	32,203	4,719		
Average intermediate debt	82,432	112,126	76,202	
Years to turnover interm. debt	2.6	23.8	1.3	
Expense as a % of income	77 %	88 %	69 %	
Interest as a % of income	5 %	6 %	5 %	

Table 27

Balance Sheet at Cost Values

Michigan Dairy, 24-99 Cows, 2004

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

	Avg.		T . OF	0	*** - 1- OF	0	
	All Farm	S	Low 25	6	High 25	6	
Number of farms	37		9		10		
	Beginning	Endina	Beginning	Ending	Beginning	Ending	
Assets	ведтинтид	Ending	ведтинтид	Ending	beginning	Enaing	
Current Farm Assets							
Cash and checking balance	7,989	6,128	4,522	3,327	20,013	11,943	
Prepaid expenses & supplies	6,281	7,145	750	944	10,718	11,497	
Growing crops	4,419	4,383	2,556	2,455	3,998	3,639	
Accounts receivable	5,720	6,354		5,556	3,078	4,411	
Hedging accounts	0	0	0	0	0	0	
Crops held for sale or feed	54,235	61,561	45,469	40,281	68,115	91,434	
Crops under government loan Market livestock held for sale	7 601	0 115	0 6,965	0 721	0 1,629	1 007	
Other current assets	7,691 160	8,115 390	80	8,731 108	1,629	1,987 188	
Total current farm assets	86,496	94,078	66,010	61,401	107,551	125,098	
Total carrent raim abbeeb	00,100	31,070	00,010	01,101	107,331	123,000	
Intermediate Farm Assets							
Breeding livestock	148,295	155,032	147,632	146,993	154,671	166,490	
Machinery and equipment	56,282	56,033		60,821	44,539	49,042	
Titled vehicles	0	0	0	0	0	0	
Other intermediate assets Total intermediate farm assets	6,261	6,210		4,346	16,067	15,753	
Total intermediate farm assets	210,838	217,275	210,960	212,161	215,276	231,286	
Long Term Farm Assets							
Farm land	150,696	157,480	96,604	96,604	140,267	156,467	
Buildings and improvements	41,768	44,235	48,677	51,781	54,788	62,610	
Other long-term assets	4,469	5,528	6,020	6,755	376	854	
Total long-term farm assets	196,933	207,243		155,140	195,431	219,931	
Total Farm Assets	494,267	518,596	428,271	428,702	518,258	576,316	
Total Nonfarm Assets	32,786	34,819	47,255	50,564	41,422	45,160	
Total Assets	527,052	553,415	475,526	479,266	559,681	621,476	
Liabilities							
Current Farm Liabilities							
Accrued interest	222	216	2	6	332	265	
Accounts payable	5,189	7,784	6,638	15,313	7,297	8,502	
Current notes	29,636	24,670	43,490	32,793	38,668	23,574	
Government crop loans	0	0	0	0	0	0	
Principal due on term debt	24,988	26,859	38,231	37,526	21,665	28,574	
Total current farm liabilities	60,035	59,529	88,361	85,638	67,962	60,916	
Total intermediate farm liabs	59,902	70,804	77,724	91,677	51,304	72,963	
Total long term farm liabilities	150,592	149,401	153,484	147,723	161,255	167,964	
Total farm liabilities	270,529	279,734	319,569	325,037	280,520	301,842	
Total nonfarm liabilities	1,561	1,896	2,288	3,243	3,716	3,846	
Total liabilities	272,090	281,629	321,857	328,280	284,236	305,688	
Net worth (farm and nonfarm)	254,962	271,786		150,986	275,445	315,788	
Net worth change		16,824		-2,684		40,343	
Ratio Analysis							
Current farm liabilities / assets	69 %	63 %	134 %	139 %	63 %	49 %	
Curr. & interm farm liab. / assets	40 %	42 %	60 %	65 %	37 %	38 %	
Long term farm liab. / assets	76 %	72 %	101 %	95 %	83 %	76 %	
Total debt to asset ratio	52 %	51 %	68 %	68 %	51 %	49 %	

Table 28

Balance Sheet at Market Values

Michigan Dairy, 24-99 Cows, 2004

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

	Avg. 0	f				
	All Far		Low 25	8	High 25	%
Number of farms		7	9		10	
Assets	Beginning	Ending	Beginning	Ending	Beginning	Ending
Current Farm Assets						
Cash and checking balance	7,989	6,128	4,522	3,327	20,013	11,943
Prepaid expenses & supplies	6,281	7,145	750	944	10,718	11,497
Growing crops	4,419			2,455		3,639
Accounts receivable	5,720	6,354		5,556		4,411
Hedging accounts	0	61 561	0 45 460	40 201		01 424
Crops held for sale or feed Crops under government loan	54,235 0			40,281		91,434 0
Market livestock held for sale	7,691		6,965	8,731	1,629	1,987
Other current assets	160	390	80	108	0	188
Total current farm assets	86,496	94,078	66,010	61,401	107,551	125,098
Intermediate Farm Assets Breeding livestock	140 706	155 770	147 622	146 002	1EE 410	166 066
Machinery and equipment	148,786 198,217			146,993 196,989		166,966 190,924
Titled vehicles	443			0		0
Other intermediate assets	6,945			4,346		15,828
Total intermediate farm assets	354,391			348,328		373,718
Long Term Farm Assets	400 251	F11 000	262 022	267 050	222 205	402 054
Farm land Buildings and improvements	488,351 87,095			367,958 85,080		403,254 78,974
Other long-term assets	5,305			6,755		854
Total long-term farm assets	580,752			459,793		483,082
Total Farm Assets	1,021,638	1,075,599		869,522		981,899
Total Nonfarm Assets Total Assets	113,275			93,501 963,024		93,858
TOTAL ASSETS	1,134,913	1,194,090	961,540	903,024	943,420	1,075,756
Liabilities						
Current Farm Liabilities						
Accrued interest	222			6		265
Accounts payable	5,189			15,313		8,502
Current notes Government crop loans	29,636 0		43,490 0	32,793 0		23,574 0
Principal due on term debt	24,988			37,526		28,574
Total current farm liabilities	60,035			85,638		60,916
	,		,	, , , , , ,	, , ,	
Total intermediate farm liabs	59,902			91,677		72,963
Total long term farm liabilities	150,592			147,723		167,964
Total farm liabilities	270,529	279,734	319,569	325,037	280,520	301,842
Total nonfarm liabilities	1,561	1,896	2,288	3,243	3,716	3,846
Total liabs excluding deferreds	272,090	281,629	321,857	328,280	284,236	305,688
Total deferred liabilities	0	0	0	0	0	0
Total liabilities	272,090	281,629	321,857	328,280	284,236	305,688
Balada da antara	054 060	071 706	152 660	150 006	075 445	215 700
Retained earnings Market valuation equity	254,962 607,861		153,669 486,014	150,986 483,758	275,445 383,745	315,788 454,281
Net worth (farm and nonfarm)	862,823	912,460	639,683	634,743	659,190	770,068
Net worth excluding deferreds	862,823	912,460	639,683	634,743		770,068
Net worth change	,	49,637	•	-4,940		110,878
Ratio Analysis						
Current farm liabilities / assets	69 %	63 %	134 %	139 %	63 %	49 %
Curr. & interm farm liab. / assets	27 %	28 %	40 %	43 %	26 %	27 %
Long term farm liab. / assets	26 %	25 %	33 %	32 %	40 %	35 %
Total debt to asset ratio Debt to assets excl deferreds	24 % 24 %	24 % 24 %	33 % 33 %	34 % 34 %	30 % 30 %	28 % 28 %
2020 to appear that actuited	21 0	21 0	ه در	24 9	J 0 %	20 0

Table 29 Statement Of Cash Flows

Michigan Dairy, 24-99 Cows, 2004

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

	Avg. Of All Farms	Low 25%	High 25%	
Number of farms	37	9	10	
Beginning cash (farm & nonfarm)	12,115	4,522	20,373	
Cash From Operating Activities				
Gross cash farm income	266,842	238,756	289,266	
Net nonfarm income	10,600	21,444	10,905	
Total cash farm expense	-209,154	-198,899		
Apparent family living expense	-32,518	-33,618	-35,113	
Income and social security tax	-2,068	-1,500	-4,043	
Cash from operations	33,702	26,183	43,671	
Cash From Investing Activities				
Sale of breeding livestock	831	391	_	
Sale of machinery & equipment	1,642	989	2,888	
Sale of titled vehicles	_	_	_	
Sale of farm land	_	_	_	
Sale of farm buildings	_	_	_	
Sale of other farm assets	1,441	_	180	
Sale of nonfarm assets	459	1,889	_	
Purchase of breeding livestock	-2,997	-1,044	-2,780	
Purchase of machinery & equip.	-27,037	-19,421	-39,070	
Purchase of titled vehicles	_	_	_	
Purchase of farm land	-5,009	_	-16,535	
Purchase of farm buildings	-10,446	-6,774	-15,934	
Purchase of other farm assets	-3,088	-752	-1,637	
Purchase of nonfarm assets	-1,849	-399	_	
Cash from investing activities	-46,053	-25,122	-72,888	
Cash From Financing Activities				
Money borrowed	39,438	21,213	58,446	
Cash gifts and inheritances	3,723	_	3,590	
Principal payments	-32,489	-23,468	-38,141	
Dividends paid	· –	_	_	
Gifts given	-2,154	_	-3,008	
Cash from financing activities	8,518	-2,255	20,887	
Net change in cash balance	-3,833	-1,195	-8,330	
Ending cash (farm & nonfarm)	8,282	3,327	12,043	

Table 30 Financial Standards Measures

Michigan Dairy, 24-99 Cows, 2004

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

	Avg. Of	- 050	! ! 050	
	All Farms	Low 25%	High 25%	
Number of farms	37	9	10	
Liquidity				
Current ratio	1.58	0.72	2.05	
Working capital	34,549	-24,237	64,183	
Solvency (market)				
Farm debt to asset ratio	26 %	37 %	31 %	
Farm equity to asset ratio	74 %	63 %	69 %	
Farm debt to equity ratio	35 %	60 %	44 %	
Profitability (cost)				
Rate of return on farm assets	1.4 %	-5.6 %	7.6 %	
Rate of return on farm equity	-2.6 %	-36.8 %	10.2 %	
Operating profit margin	3.3 %	-13.5 %		
Net farm income	34,853	6,191	64,358	
Repayment Capacity				
Term debt coverage ratio	141 %	50 %	229 %	
Capital replacement margin	15,026	-25,146	46,118	
Efficiency				
Asset turnover rate (cost)	44.0 %	41.6 %	48.3 %	
Operating expense ratio	71.7 %	81.8 %	64.5 %	
Depreciation expense ratio	10.8 %	9.2 %	10.2 %	
Interest expense ratio	4.8 %	6.4 %	4.8 %	
Net farm income ratio	12.7 %	2.6 %	20.5 %	

Table 31 Operator and Labor Information

Michigan Dairy, 24-99 Cows, 2004

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

	Avg. Of All Farms	Low 25%	High 25%	
Number of farms	37	9	10	
Operator Information				
Average number of operators	1.4	1.7	1.2	
Average age of operators	52.2	53.6	50.4	
Average number of years farming	27.9	30.3	25.8	
Results Per Operator				
Working capital	24,119	-14,542	53,486	
Total assets (market)	833,610	577,814	896,464	
Total liabilities	196,609	196,968	254,740	
Net worth (market)	637,001	380,846		
Net worth excl deferred liabs	637,001	380,846	641,724	
Gross farm income	192,275	141,088	261,754	
Total farm expense	167,944	137,374	208,122	
Net farm income	24,332	3,715	53,631	
Net nonfarm income	7,400	12,867	9,088	
Family living & tax withdrawals	24,145	21,071	32,631	
Total acres owned	238.7	164.1	225.6	
Total crop acres	277.1	213.1	423.1	
Crop acres owned	168.9	132.1	224.3	
Crop acres cash rented	108.1	81.0	198.8	
Crop acres share rented	-	-	-	
Total pasture acres	-	-	_	
Labor Analysis				
Number of farms	37	9	10	
Total unpaid labor hours	4,464	5,176	4,019	
Total hired labor hours	1,815	2,215	1,308	
Total labor hours per farm	6,279	7,391	5,327	
Unpaid hours per operator	3,116	3,105	3,349	
Value of farm production / hour	35.45	24.13	49.64	
Net farm income / unpaid hour	7.81	1.20		
Average hourly hired labor wage	10.93	11.57	12.92	
Partnerships & LLCs				
Number of farms	8	3	1	
Number of operators	2.1	-	-	
Owner withdrawals per farm	-	-	_	
Withdrawals per operator	_	_	-	

Table 32 Financial Summary

Michigan Dairy, 24-99 Cows, 2004

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

(1011	-7		011 1100000	
	Avg. Of			
	All Farms	Low 25%	High 25%	
	1111 1 011110	2011 200	111311 200	
1				
Number of farms	37	9	10	
Income Statement				
Gross cash farm income	266,842	238,756	289,266	
Total cash farm expense	209,154	198,899	217,344	
Net cash farm income	57,689	39,857	71,922	
Inventory change	6,854	-12,094	24,480	
Depreciation and capital adjust	-29,690	-21,572	-32,044	
Net farm income	34,853	6,191	64,358	
Profitability (cost)				
	00 560	600	40 001	
Labor and management earnings	20,763	-683	48,991	
Rate of return on assets	1.4 %	-5.6 %	7.6 %	
Rate of return on equity	-2.6 %	-36.8 %	10.2 %	
Operating profit margin	3.3 %	-13.5 %	15.6 %	
Asset turnover rate	44.0 %	41.6 %		
Asset turnover rate	44.0 %	41.0 %	40.3 %	
Profitability (market)				
Labor and management earnings	18,075	-30,043	94,101	
Rate of return on assets	3.5 %	-3.2 %	11.8 %	
Rate of return on equity	3.1 %	-7.7 %	14.9 %	
Operating profit margin	16.6 %	-15.4 %		
Asset turnover rate	21.2 %	20.5 %	28.8 %	
Liquidity				
Ending current ratio	1.58	0.72	2.05	
Ending working capital	34,549	-24,237	64,183	
End working capital to gross inc	12.9 %	-10.2 %	22.2 %	
Term debt coverage ratio	140.5 %	50.5 %	229.4 %	
Expense as a percent of income	76.6 %	88.2 %	69.3 %	
Interest as a percent of income	4.8 %	6.4 %	4.8 %	
Solvency (cost)				
- · · · · · · · · · · · · · · · · · · ·	27	0	1.0	
Number of farms	37	9	10	
Ending farm assets	518,596	428,702	576,316	
Ending farm liabilities	279,734	325,037	301,842	
Ending total assets	553,415	479,266	621,476	
Ending total liabilities	281,629	328,280	305,688	
Ending net worth	271,786		315,788	
		150,986		
Net worth change	16,824	-2,684	40,343	
Ending farm debt to asset ratio	54 %	76 %	52 %	
Beg total debt to asset ratio	52 %	68 %	51 %	
End total debt to asset ratio	51 %	68 %	49 %	
Solvency (market)				
- · · · · · · · · · · · · · · · · · · ·	2.77	0	1.0	
Number of farms	37	9	10	
Ending farm assets	1,075,599	869,522	981,899	
Ending farm liabilities	279,734	325,037	301,842	
Ending total assets	1,194,090	963,024	1,075,756	
Ending total liabilities	281,629	328,280	305,688	
Ending net worth	912,460	634,743	770,068	
Net worth change	49,637	-4,940	110,878	
Ending farm debt to asset ratio	26 %	37 %	31 %	
Beg total debt to asset ratio	24 %	33 %	30 %	
End total debt to asset ratio	24 %	34 %	28 %	
	21 0	21 0	20 %	
Nonfarm Information				
Net nonfarm income	10,600	21,444	10,905	
Crop Acres				
Total acres owned	342	274	271	
Total crop acres	397	355	508	
Total crop acres owned	242	220	269	
Total crop acres cash rented	155	135	239	
Total crop acres share rented	_	_	_	

## C. Financial Summary Information, Herds with 100-249 Cows

Table 33 Crop Production		_	
Michigan Dairy			
(Farms Sorted By Rat	e of Return o	n Assets - M	ikt)
	Avg. Of		
	All Farms	Low 25%	High 25%
Dairy			
Number of farms	76	19	20
Average number of Cows	162	156	161
Milk production per Cow, lbs.	21,025		22,143
Average milk price per cwt.,	\$16.37	•	•
Acreage Summary			
Total acres owned	398	456	419
Total crop acres	666	709	614
Crop acres owned	348	310	427
Crop acres cash rented	316	399	187
Crop acres share rented	2	_	_
Total pasture acres	5	_	16
Average Price Received (Cash Sales O	nly)		
Corn per bushel	2.13	_	_
Wheat, Winter per bushel	2.77	_	2.76
Soybeans per bushel	5.90	_	_
Hay, Alfalfa per ton	57.92	_	-
Straw per ton	23.33	_	-

Table 34 Farm Income Statement
Michigan Dairy, 100-249 Cows, 2004
(Farms Sorted By Rate of Return on Assets - Mkt)

	Avg. Of All Farms	Low 25%	High 25%	
			111911 100	
Number of farms	76	19	20	
Cash Farm Income				
Asparagus	131	522	-	
Barley	85	342	_	
Corn	5,121	5,005	1,953	
Corn Silage	654	_	_	
Hay, Alfalfa	570	893	225	
Hay, Mixed	917	625	798	
Haylage, Mixed	518	_	_	
Oats	226	26	_	
Soybeans	2,650	1,409	3,706	
Straw	137	202	138	
Wheat, Winter	3,214	2,489	2,767	
Miscellaneous crop income	100	37	-	
Beef Cow-Calf, Beef Calves	80	_	305	
Beef, Finish Beef Calves	546	-	-	
Dairy, Milk	562,716	497,113	584,497	
Dairy, Dairy Calves	2,907	2,440	4,222	
Dairy Heifers (for sale)	851	629	210	
Dairy Replacement Heifers	1,244	39	2,439	
Dairy Steers	9,157	10,342	15,254	
Hogs, Farrow-Fin, Raised Hogs	153	_	-	
Hogs, Feeder Pigs, Feeder Pigs	176	_	-	
Sheep, Market Lambs, Mkt Lambs	88	-	334	
CCC market loan gain	0	0	-	
Cull breeding livestock	32,873	28,010	32,552	
Misc. livestock income	2,557	967	1,700	
Direct & CC govt payments	8,333	8,218	8,750	
Other government payments	11,881	10,740	9,431	
Custom work income	4,113	3,739	1,389	
Patronage dividends, cash	2,590	846	5,470	
Insurance income	6,181	12,904	5,905	
Other farm income	10,820	7,222	23,377	
Gross Cash Farm Income	671,589	594,760	705,422	

Table 34 Farm Income Statement (Continued)

Michigan Dairy, 100-249 Cows, 2004

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

	Avg. Of All Farms	LOW 25%	High 25%
	1111 1 011110	20 25 0	111911 200
Number of farms	76	19	20
Cash Farm Expense			
Seed Seed	13,314	14,057	14,165
Fertilizer	17,758	19,583	17,280
Crop chemicals	8,923	9,028	9,916
Crop insurance	574	933	679
Drying fuel	302	817	_
Irrigation energy	30	119	-
Crop custom hire	1,005	1,834	735
Crop miscellaneous Feeder livestock purchase	1,702 147	984 19	839 370
Purchased feed	151,833	123,635	158,938
Breeding fees	5,035	3,300	5,463
Veterinary	15,376	11,967	18,326
BST	620	864	386
Supplies	24,397	25,375	23,787
DHIA	470	95	675
Livestock leases	247	632	338
Livestock utilities	310		806
Livestock hauling and trucking	7,073	6,307	7,718
Marketing	17,508	16,131	17,731
Bedding	552	1,704	282
Livestock miscellaneous Interest	166 22,695	- 24,901	212 15,998
Packaging and supplies	22,095	24,901	1,138
Fuel & oil	19,658	20,517	19,009
Repairs	37,195	40,470	35,290
Custom hire	18,395	11,825	23,951
Hired labor	77,583	88,216	77,551
Land rent	18,984	15,461	20,480
Machinery & bldg leases	7,231	2,716	12,417
Real estate taxes	7,583	8,101	7,734
Personal property taxes	114	-	385
Farm insurance	11,086	11,884	10,973
Utilities	13,016	12,838	11,376
Hauling and trucking Dues & professional fees	186 4,202	4 490	674
Hedging account deposits	38	4,480	4,142 144
Miscellaneous	12,645	10,615	12,082
Total cash expense	518,250	489,407	531,987
Net cash farm income	153,339	105,353	173,435
Inventory Changes			
Crops and feed	4,999	-13,752	9,875
Market livestock	1,319	1,545	1,588
Accounts receivable	7,265	-2,938	10,225
Prepaid expenses and supplies	2,108	2,722	1,822
Accounts payable Total inventory change	5,065 20,755	5,837 -6,585	1,949 25,459
Net operating profit	174,094	98,768	198,893
Net operating profit	174,094	90,700	190,093
Depreciation and Other Capital Adjust	ments		
Breeding livestock	7,398	4,070	4,347
Machinery and equipment	-44,535	-20,065	-51,311
Buildings and improvements	-28,594	-49,982	-17,641
Other farm capital	454	3,510	-428
Total depr. and other capital adj	-65,278	-62,467	-65,033
Net farm income	108,816	36,301	133,860
nee laim income	100,010	30,301	133,000

Table 35

Inventory Changes

Michigan Dairy, 100-249 Cows, 2004

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

(Farms Sorted By Rate of Return on Assets - Mkt)					
	Avg. Of All Farms	Low 25%	High 25%		
Number of farms	76	18	20		
Net cash farm income	153,339	104,074	173,435		
Crops and Feed Ending inventory Beginning inventory Inventory change	122,060 117,062 4,999	140,486 152,307 -11,820	117,308 107,434 9,875		
Market Livestock Ending inventory Beginning inventory Inventory change	14,097 12,778 1,319	18,618 17,198 1,420	19,055 17,468 1,588		
Accts Receivable & Other Current As Ending inventory Beginning inventory Inventory change	41,267 34,002 7,265	24,082 27,570 -3,488	33,899 23,675 10,225		
Prepaid Expenses and Supplies Ending inventory Beginning inventory Inventory change	15,119 13,011 2,108	7,746 6,454 1,292	11,359 9,537 1,822		
Accounts Payable & Accrued Expenses Beginning inventory Ending inventory Inventory change	20,615 15,550 5,065	16,384 10,223 6,162	11,803 9,854 1,949		
Total inventory change	20,755	-6,435	25,459		
Net operating profit	174,094	97,639	198,893		

Table 36 Depreciation and Other Capital Adjustments

Michigan Dairy, 100-249 Cows, 2004

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

(railib boiled by Rac	e or keturn o	II ASSELS	MICC)	
	Avg. Of			
	All Farms	Low 25%	High 25%	
Number of farms	76	18	20	
Net operating profit	174,094	97,639	198,893	
Breeding Livestock				
Ending inventory	383,187	382,541	382,858	
Capital sales	3,789	1,604	1,483	
Beginning inventory	371,913	369,396	375,421	
Capital purchases	7,665	8,892	4,573	
Depreciation, capital adjust.	7,398	5,856	4,347	
Machinery and Equipment				
Ending inventory	138,689	161,269	138,356	
Capital sales	1,881	1,141	3,312	
Beginning inventory	119,860	133,777	108,555	
Capital purchases			84,424	
Depreciation, capital adjust.	-44,535	-18,346	-51,311	
Buildings and Improvements				
Ending inventory	157,391	200,892	128,086	
Capital sales	1,159	_	_	
Beginning inventory	128,000	115,484	100,319	
Capital purchases	59,144		45,408	
Depreciation, capital adjust.	-28,594	-52,145	-17,641	
Other Capital Assets				
Ending inventory	37,547	44,533	31,462	
Capital sales	11,251	38,735	779	
Beginning inventory	39,364	74,892	28,336	
Capital purchases	8,980	4,671		
Depreciation, capital adjust.	454	3,705	-428	
Total depreciation, capital adj.	-65,278	-60,929	-65,033	
Net farm income	108,816	36,710	133,860	

Table 37 Profitability Measures
Michigan Dairy, 100-249 Cows, 2004

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

	7 Of			
	Avg. Of All Farms	Low 25%	IIi'ah OE&	
	AII Fallis	TOM 72%	High 25%	
Number of farms	76	18	20	
Profitability (assets valued at cost)	)			
Net farm income	108,816	36,710	133,860	
Labor and management earnings	72,094	-2,574	101,803	
Rate of return on assets	6.2 %	0.5 %	9.9 %	
Rate of return on equity	7.9 %	-3.0 %	14.9 %	
Operating profit margin	13.0 %	1.3 %	16.5 %	
Asset turnover rate	47.6 %	36.4 %	59.9 %	
Interest on farm net worth	36,722	39,284	32,057	
Farm interest expense	22,588	25,369	15,841	
Value of operator lbr and mgmt.	61,355	56,171	55,336	
Return on farm assets	70,049	5,908	94,364	
Average farm assets	1,134,903	1,271,722	954,589	
Return on farm equity	47,461	-19,461	78,524	
Average farm equity	600,779	653,800	526,841	
Value of farm production	540,588	462,611	572,147	
	Avg. Of			
	All Farms	Low 25%	High 25%	
Number of farms	76	18	20	
Profitability (assets valued at marke	et)			
Net farm income	179,529	56,751	321,675	
Labor and management earnings	102,762	-32,870	253,726	
Rate of return on assets	7.7 %	1.2 %	18.1 %	
Rate of return on equity	9.2 %	0.0 %	23.5 %	
Operating profit margin	26.0 %	5.6 %	49.3 %	
Asset turnover rate	29.7 %	21.8 %	36.7 %	
Interest on farm net worth	76,767	89,620	67,949	
Farm interest expense	22,588	25,369	15,841	
Value of operator lbr and mgmt.	61,355	56,171	55,336	
Return on farm assets	140,761	25,948	282,179	
Average farm assets	1,819,425	2,126,316	1,560,232	
Return on farm equity	118,173	579	266,339	
Average farm equity	1,279,444	1,493,669	1,132,484	
Value of farm production	540,588	462,611	572,147	

Table 38 Liquidity Measures

Michigan Dairy, 100-249 Cows, 2004

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

	Avg. Of All Farms	Low 25%	High 25%	
Number of farms	76	18	20	
Liquidity (cash)				
Net cash farm income	153,339	104,074	173,435	
Net nonfarm income	4,221	8,997	232	
Family living and taxes	54,314	45,099	59,874	
Principal due on long term debt	14,844	14,450	8,211	
Cash available for interm. debt	88,402	53,522	105,582	
Average intermediate debt	188,211	195,426	213,944	
Years to turnover interm. debt	2.1	3.7	2.0	
Expense as a % of income	77 %	82 %	75 %	
Interest as a % of income	3 %	4 %	2 %	
Liquidity (accrual)				
Total accrual farm income	685,171	574,816	727,108	
Total accrual operating expense	511,077	477,177	528,215	
Net accrual operating income	174,094	97,639	198,893	
Net nonfarm income	4,221	8,997	232	
Family living and taxes	54,314	45,099	59,874	
Principal due on long term debt	14,844	14,450	8,211	
Available for intermediate debt	109,157	47,087	131,040	
Average intermediate debt	188,211	195,426	213,944	
Years to turnover interm. debt	1.7	4.2	1.6	
Expense as a % of income	75 %	83 %	73 %	
Interest as a % of income	3 %	4 %	2 %	

Table 39

Balance Sheet at Cost Values

Michigan Dairy, 100-249 Cows, 2004

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

Avg. Of						
	All Far		Low 2	5%	High 2	5%
Number of farms	7	6	18	3	2	0
	Beginning	Ending	Beginning	Ending	Beginning	Ending
Assets	- 5 5	. 3	- 5 5	. 3	- 5 5	- 3
Current Farm Assets						
Cash and checking balance	18,460	20,431			11,916	8,007
Prepaid expenses & supplies	13,011	15,119	6,454	7,746	9,537	
Growing crops	8,512	8,577		9,168	5,032	4,717
Accounts receivable	24,962	32,124	18,121	14,914	17,231	27,927
Hedging accounts Crops held for sale or feed	116 447	121 712	140 710	130 030	225	298
Crops held for sale of feed Crops under government loan	116,447 615	121,713 347	149,710 2,597	139,020 1,467	107,434	117,308 0
Market livestock held for sale	12,778	14,097		18,618	17,468	19,055
Other current assets	469	487	17,198	10,010	1,187	
Total current farm assets	195,313	212,975	221,905	205,028	170,028	
Intermediate Farm Assets						
Breeding livestock	371,913	383,187	369,396	382,541	375,421	382,858
Machinery and equipment	119,436	138,288	133,777	161,269	107,082	136,974
Titled vehicles	424	400	0	0	1,473	1,382
Other intermediate assets	28,796	25,801	68,826	34,528	17,102	20,324
Total intermediate farm assets	520,569	547,676	571,999	578,339	501,077	541,537
Long Term Farm Assets						
Farm land	211,848	273,720	280,223	353,504	84,642	171,487
Buildings and improvements	128,000			•	100,319	
Other long-term assets	10,568	11,746		10,004		
Total long-term farm assets	350,417	442,856	401,773	564,400		310,711
Total Farm Assets	1,066,298	1,203,507	1,195,677	1,347,767	867,301	1,041,877
Total Nonfarm Assets	92,409	96,405	101,275	66,856	50,016	57,863
Total Assets	1,158,707	1,299,912	1,296,952	1,414,622	917,316	1,099,739
Liabilities						
Current Farm Liabilities						
Accrued interest	1,047	941	702	493	266	109
Accounts payable	19,568	14,610	15,683	9,730	11,537	
Current notes	56,529	52,473	108,792	116,587	47,771	
Government crop loans Principal due on term debt	615	294		1,240	0	0
Total current farm liabilities	50,955	61,053	48,838 176,611	58,756	46,225	
iotal current larm liabilities	128,714	129,370	1/0,011	186,806	105,799	112,399
Total intermediate farm liabs	151,188	149,039	181,557	139,669	149,897	187,349
Total long term farm liabilities	224,833	285,104	206,261	344,940	113,612	186,439
Total farm liabilities	504,735	563,513	564,429	671,415	369,308	486,187
Total nonfarm liabilities	9,229	9,709	380	127	4,109	4,092
Total liabilities	513,964	573,222	564,809	671,541	373,417	490,279
Net worth (farm and nonfarm)	644,743	726,690	732,142	743,081	543,899	609,460
Net worth change		81,947		10,939		65,561
Ratio Analysis						
Current farm liabilities / assets	66 %	61 %	80 %	91 %	62 %	59 %
Curr. & interm farm liab. / assets	39 %	37 %	45 %	42 %	38 %	41 %
Long term farm liab. / assets	64 %	64 %	51 %	61 %	58 %	60 %
Total debt to asset ratio	44 %	44 %	44 %	47 %	41 %	45 %

Table 40

Balance Sheet at Market Values
Michigan Dairy, 100-249 Cows, 2004

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

	Avq. 0	f				
	All Far		Low 259	Ś	High 25%	Š
Number of farms	7	б	18	3	20	)
	Beginning	Ending	Beginning	Ending	Beginning	Ending
Assets						
Current Farm Assets Cash and checking balance	18,460	20 421	10 277	14,096	11,916	8,007
Prepaid expenses & supplies	13,011	20,431 15,119		7,746	9,537	11,359
Growing crops	8,512			9,168	5,032	4,717
Accounts receivable	24,962			14,914		27,927
Hedging accounts	59			0	225	298
Crops held for sale or feed	116,447	121,713	149,710	139,020	107,434	117,308
Crops under government loan	615	347	2,597	1,467	0	0
Market livestock held for sale	12,778	14,097	17,198	18,618	17,468	19,055
Other current assets	469			0	1,187	957
Total current farm assets	195,313	212,975	221,905	205,028	170,028	189,628
Total and distance and a second						
Intermediate Farm Assets Breeding livestock	375,704	387,613	369,601	382,552	386,193	396,453
Machinery and equipment	299,221	338,014		392,929		324,910
Titled vehicles	2,109			3,139		3,230
Other intermediate assets	32,900			35,519		21,668
Total intermediate farm assets	709,934			814,139		746,261
Long Term Farm Assets						
Farm land	580,466				369,251	589,264
Buildings and improvements	216,774					202,753
Other long-term assets	13,207					13,521
Total long-term farm assets	810,447		1,017,003		539,605	805,538
Total Farm Assets	1,715,694	1,923,156	2,040,147	2,212,485	1,379,037	1,741,427
Total Nonfarm Assets	150,832	157,903	165,465	134,999	116,055	126,271
Total Assets			2,205,611		•	
Liabilities						
Current Farm Liabilities						
Accrued interest	1,047			493	266	109
Accounts payable	19,568			9,730	11,537	9,745
Current notes	56,529			116,587	47,771	37,388
Government crop loans Principal due on term debt	615 50,955	294 61,053		1,240 58,756	0 46,225	0 65,157
Total current farm liabilities	128,714			186,806	105,799	112,399
Total Cullent land Habilities	120,714	129,370	170,011	100,000	103,799	112,399
Total intermediate farm liabs	151,188	149,039	181,557	139,669	149,897	187,349
Total long term farm liabilities	224,833			344,940	113,612	186,439
Total farm liabilities	504,735	563,513	564,429	671,415	369,308	486,187
Total nonfarm liabilities	9,229	9,709		127	4,109	4,092
Total liabs excluding deferreds	513,964	573,222		671,541	373,417	490,279
Total deferred liabilities	6,559	6,112		17,007	0	0
Total liabilities	520,523	579,334	581,609	688,548	373,417	490,279
Retained earnings	644,743	726,690	732,142	743,081	543,899	609,460
Market valuation equity	701,259	775,035		915,855	577,775	767,959
Net worth (farm and nonfarm)			1,624,003		,	
Net worth excluding deferreds			1,640,802			
Net worth change		155,723		34,933		255,746
Ratio Analysis						
Current farm liabilities / assets	66 %	61 %	80 %	91 %	62 %	59 %
Curr. & interm farm liab. / assets	31 %	29 %	35 %	32 %	30 %	32 %
Long term farm liab. / assets	28 %	30 %		29 %	21 %	23 %
Total debt to asset ratio	28 %	28 %	26 %	29 %	25 %	26 %
Debt to assets excl deferreds	28 %	28 %	26 %	29 %	25 %	26 %

Table 41 Statement Of Cash Flows
Michigan Dairy, 100-249 Cows, 2004

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

	Avg. Of	- 050	' 1 050	
	All Farms	Low 25%	High 25%	
Number of farms	76	18	20	
Beginning cash (farm & nonfarm)	22,197	18,377	14,466	
Cash From Operating Activities				
Gross cash farm income	671,589	588,705	705,422	
Net nonfarm income	4,221	8,997	232	
Total cash farm expense	-518,250	-484,631	-531,987	
Apparent family living expense	-51,254	-44,181	-57,188	
Income and social security tax	-3,060	-919	-2,686	
Cash from operations	103,246	67,972	113,793	
Cash From Investing Activities				
Sale of breeding livestock	3,789	1,604	1,483	
Sale of machinery & equipment	1,881	1,141	3,312	
Sale of titled vehicles			-	
Sale of farm land	3,205	4,444	1,800	
Sale of farm buildings	1,159		_,	
Sale of other farm assets	11,251	38,735	779	
Sale of nonfarm assets	431	869	_	
Purchase of breeding livestock	-7,665	-8,892	-4,573	
Purchase of machinery & equip.	-65,008	-46,980	-83,524	
Purchase of titled vehicles	-237	<i>.</i>	-900	
Purchase of farm land	-51,237	-34,639	-95,590	
Purchase of farm buildings	-59,144	-137,552	-45,408	
Purchase of other farm assets	-8,980	-4,671	-4,332	
Purchase of nonfarm assets	-10,024	-972	-7,914	
Cash from investing activities	-180,578	-186,912	-234,867	
Cash From Financing Activities				
Money borrowed	175,962	257,794	233,150	
Cash gifts and inheritances	17,134		2,257	
Principal payments	-111,655	-144,589	-114,582	
Dividends paid				
Gifts given	-2,884	-2,377	-4,999	
Cash from financing activities	78,556			
Net change in cash balance	1,224	-4,281	-5,248	
Ending cash (farm & nonfarm)	23,421	14,096	9,217	

Table 42 Financial Standards Measures

Michigan Dairy, 100-249 Cows, 2004

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

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	76	18	20
Liquidity			
Current ratio	1.65	1.10	1.69
Working capital	83,604	18,222	77,229
Solvency (market)			
Farm debt to asset ratio	30 %		
Farm equity to asset ratio	70 %		
Farm debt to equity ratio	42 %	45 %	39 %
Profitability (cost)			
Rate of return on farm assets		0.5 %	
Rate of return on farm equity		-3.0 %	
Operating profit margin	13.0 %	1.3 %	16.5 %
Net farm income	108,816	36,710	133,860
Repayment Capacity			
Term debt coverage ratio	197 %	117 %	250 %
Capital replacement margin	70,913	12,448	92,850
Efficiency			
Asset turnover rate (cost)	47.6 %	36.4 %	59.9 %
Operating expense ratio	71.3 %	78.6 %	70.5 %
Depreciation expense ratio	9.5 %	10.6 %	8.9 %
Interest expense ratio	3.3 %	4.4 %	2.2 %
Net farm income ratio	15.9 %	6.4 %	18.4 %

Table 43

Operator and Labor Information

Michigan Dairy, 100-249 Cows, 2004

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

	Avg. Of All Farms	Low 25%	High 25%	
Number of farms	76	18	20	
Operator Information Average number of operators Average age of operators Average number of years farming	1.6 50.3 25.7	1.6 56.3 30.2	1.4 49.7 23.8	
Results Per Operator Working capital Total assets (market) Total liabilities Net worth (market) Net worth excl deferred liabs	52,730 1,312,535 365,389 947,146 951,001	11,119 1,432,363 420,131 1,012,232 1,022,609	57,207 1,383,481 363,170 1,020,311 1,020,311	
Gross farm income Total farm expense Net farm income	432,141 363,510 68,631	350,735 328,336 22,399	538,599 439,443 99,156	
Net nonfarm income Family living & tax withdrawals	2,662 34,256	5,490 27,518	172 44,351	
Total acres owned Total crop acres Crop acres owned Crop acres cash rented Crop acres share rented Total pasture acres	250.9 420.0 219.5 199.1 1.4 3.3	270.8 422.8 186.2 236.6	310.5 454.9 316.1 138.8 - 11.8	
Labor Analysis Number of farms Total unpaid labor hours Total hired labor hours Total labor hours per farm Unpaid hours per operator Value of farm production / hour Net farm income / unpaid hour Average hourly hired labor wage	76 4,947 4,966 9,913 3,120 54.54 22.00 12.85	18 4,426 4,678 9,104 2,701 50.81 8.29 13.59	20 4,829 5,267 10,096 3,577 56.67 27.72 12.30	
Partnerships & LLCs Number of farms Number of operators Owner withdrawals per farm Withdrawals per operator	23 2.3 - -	6 2.2 - -	3 - - -	

Table 44 Financial Summary
Michigan Dairy, 100-249 Cows, 2004

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

	_		
	Avg. Of All Farms	Low 25%	High 25%
Number of farms	76	18	20
Income Statement			
Gross cash farm income	671,589	588,705	705,422
Total cash farm expense	518,250	484,631	531,987
Net cash farm income	153,339	104,074	173,435
Inventory change	20,755	-6,435	25,459
Depreciation and capital adjust Net farm income	-65,278 108,816	-60,929 36,710	-65,033 133,860
Net farm friedme	100,010	30,710	133,000
Profitability (cost)			
Labor and management earnings	72,094	-2,574	101,803
Rate of return on assets	6.2 %	0.5 %	9.9 %
Rate of return on equity	7.9 %	-3.0 %	14.9 %
Operating profit margin Asset turnover rate	13.0 % 47.6 %	1.3 % 36.4 %	16.5 % 59.9 %
Profitability (market)	47.0 %	30.4 %	59.9 %
Labor and management earnings	102,762	-32,870	253,726
Rate of return on assets	7.7 %	1.2 %	18.1 %
Rate of return on equity	9.2 %	0.0 %	23.5 %
Operating profit margin	26.0 %	5.6 %	49.3 %
Asset turnover rate	29.7 %	21.8 %	36.7 %
Liquidity			
Ending current ratio	1.65	1.10	1.69
Ending working capital  End working capital to gross inc	83,604 12.4 %	18,222 3.1 %	77,229 10.9 %
Term debt coverage ratio	196.6 %	117.0 %	250.5 %
Expense as a percent of income	74.6 %	83.0 %	72.6 %
Interest as a percent of income	3.3 %	4.4 %	2.2 %
Solvency (cost)			
Number of farms	76	18	20
Ending farm assets	1,203,507	1,347,767	1,041,877
Ending farm liabilities	563,513	671,415	486,187
Ending total assets	1,299,912	1,414,622	1,099,739
Ending total liabilities Ending net worth	573,222	671,541	490,279
Net worth change	726,690 81,947	743,081 10,939	609,460 65,561
Ending farm debt to asset ratio	47 %	50 %	47 %
Beg total debt to asset ratio	44 %	44 %	41 %
End total debt to asset ratio	44 %	47 %	45 %
Solvency (market)			
Number of farms	76	18	20
Ending farm assets	1,923,156	2,212,485	1,741,427
Ending farm liabilities Ending total assets	569,141	686,244	486,187
Ending total assets Ending total liabilities	2,081,059 579,334	2,347,484 688,548	1,867,699 490,279
Ending total Habilities Ending net worth	1,501,726	1,658,936	1,377,419
Net worth change	155,723	34,933	255,746
Ending farm debt to asset ratio	30 %	31 %	28 %
Beg total debt to asset ratio	28 %	26 %	25 %
End total debt to asset ratio	28 %	29 %	26 %
Nonfarm Information			
Net nonfarm income	4,221	8,997	232
Farms reporting living expenses	9 38 461	2	3
Total family living expense Total living, invest, & capital	38,461 65,132	_	
Crop Acres	03,132		
Total acres owned	398	444	419
Total crop acres	666	693	614
Total crop acres owned	348	305	427
Total crop acres cash rented	316	388	187
Total crop acres share rented	2	-	_

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

<u>-</u>	on and Marketing	-		
(Farms Sorted By Ra	=		Ikt)	
	7 05			
	Avg. Of All Farms	Low 25%	High 25%	
Dairy				
Number of farms	31	9	5	
Average number of Cows	444	361	409	
Milk production per Cow, lbs.	22,499	21,663	21,992	
Average milk price per cwt.,	\$16.28	\$15.60	\$17.90	
Acreage Summary				
Total acres owned	659	842	481	
Total crop acres	1,381	1,437	1,377	
Crop acres owned	726	648	912	
Crop acres cash rented	655	789	465	
Crop acres share rented	_	_	_	
Total pasture acres	10	35	-	
Average Price Received (Cash Sales	Only)			
Corn per bushel	2.26	_	_	
Soybeans per bushel	6.55	_	-	
Wheat, Winter per bushel	3.16	-	-	

Table 46 Farm Income Statement

Michigan Dairy, 250 Plus Cows, 2004

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

(10111111111111111111111111111111111111				
	Avg. Of			
	All Farms	Low 25%	High 25%	
Number of farms	31	9	5	
Cash Farm Income				
Corn	17,971	40,182	1,526	
Corn Silage	3,240	10,639	-	
Corn, Seed	457	_	2,835	
Hay, Alfalfa	79	-	490	
Haylage, Mixed	1,167	482	_	
Oats	387	404	-	
Soybeans	28,892	38,278	31,484	
Speltz	645	-	4,000	
Straw	422	1,254	-	
Sugar Beets	4,884	-	_	
Wheat, Winter	5,973	10,435	1,032	
Miscellaneous crop income	290	6	-	
Beef Cow-Calf, Beef Calves	34	118	-	
Beef, Background Beef	8,782	30,250	-	
Dairy, Milk	1,652,455	1,218,041	1,795,102	
Dairy, Dairy Calves	11,544	7,407	18,389	
Dairy Replacement Heifers	641	128	3,130	
Dairy Steers	11,660	14,763	134	
Cull breeding livestock	71,803	77,365	50,108	
Misc. livestock income	30	103	-	
Direct & CC govt payments	10,816	16,756	2,368	
Other government payments	34,142	31,336	42,913	
Custom work income	12,328	14,315	1,040	
Patronage dividends, cash	20,905	6,834	83,028	
Insurance income	21,461	22,756	53,833	
Other farm income	9,780	5,835	3,290	
Gross Cash Farm Income	1,930,787	1,547,687	2,094,703	

Table 46 Farm Income Statement (Continued)

Michigan Dairy, 250 Plus Cows, 2004

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

	Avg. Of All Farms	Low 25%	High 25%
Number of farms	31	9	5
Cash Farm Expense			
Seed	38,617	44,690	28,384
Fertilizer	47,805	60,379	36,023
Crop chemicals	29,935	32,185	18,605
Crop insurance	3,588	2,445	12,566
Drying fuel	400	12	_
Crop custom hire	524	1,805	_
Crop marketing	1,134	994	_
Crop miscellaneous	2,572	1,022	7,725
Feeder livestock purchase	14,733	40,374	-
Purchased feed	436,506	328,683	552,900
Breeding fees	12,966	7,282	13,261
Veterinary	59,995	49,083	56,014
BST	1,931	2,796	3,216
Supplies	69,833	39,835	75,915
DHIA	342		-
Livestock leases	220	756	_
Hauling and trucking	9,700	6,643	15,617
Livestock marketing	51,204	43,856	29,045
Bedding	1,783	2,133	490
Interest	74,097	70,523	75,438
Fuel & oil	47,370	43,345	41,420
Repairs	114,210	102,615	151,710
Custom hire	69,270	52,333	105,260
Hired labor	308,064	225,573	359,726
Land rent	55,718	45,676	54,220
Machinery & bldg leases	12,819	18,067	5,701
Real estate taxes	12,400	11,445	9,488
Personal property taxes	521	-	2,685
Farm insurance	23,282	27,463	19,851
Utilities	33,123	28,397	43,976
Dues & professional fees	8,078	8,842	9,080
Hedging account deposits	10,216	-750	-
Miscellaneous	48,467	66,927	28,064
Total cash expense	1,601,421		1,756,378
Net cash farm income	329,366		338,325
	,	,	555,525
Inventory Changes	20 205	16 700	125 254
Crops and feed	39,395	16,799	135,954
Market livestock	1,747	-7,457	12,621
Accounts receivable	11,398	4,190	20,733
Prepaid expenses and supplies	19,400	-6,786	73,410
Accounts payable	17,084	27,529	43,448
Total inventory change	89,023	34,275	286,166
Net operating profit	418,389	216,531	624,491
Depreciation and Other Capital Adjust	ments		
Breeding livestock	18,237	1,445	56,812
Machinery and equipment	-124,530	-79,086	-99,067
Buildings and improvements	-58,460	-39,721	-101,884
Other farm capital	610	-545	-2,042
Total depr. and other capital adj	-164,143	-117,907	-146,181
Net farm income	254,246	98,624	478,310

Table 47

Inventory Changes

Michigan Dairy, 250 Plus Cows, 2004

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

(Farms Sorted By Rate	e of Return c	on Assets - N	lkt)	
	Avg. Of All Farms	Low 25%	High 25%	
Number of farms	31	7	8	
Net cash farm income	329,366	176,421	618,778	
Crops and Feed Ending inventory Beginning inventory Inventory change	335,374 295,979 39,395		401,684 315,486 86,198	
Market Livestock Ending inventory Beginning inventory Inventory change	21,380 19,633 1,747	-	10,945 3,597 7,348	
Accts Receivable & Other Current Asse Ending inventory Beginning inventory Inventory change	96,822 85,425 11,398	114,630 100,285 14,345	124,634 84,568 40,066	
Prepaid Expenses and Supplies Ending inventory Beginning inventory Inventory change	69,219 49,820 19,400	16,883 24,830 -7,947	184,734 127,551 57,183	
Accounts Payable & Accrued Expenses Beginning inventory Ending inventory Inventory change	65,885 48,801 17,084	67,186 70,160 -2,974	29,979 3,956 26,023	
Total inventory change	89,023	-7,731	216,818	
Net operating profit	418,389	168,689	835,595	

Table 48 Depreciation and Other Capital Adjustments

Michigan Dairy, 250 Plus Cows, 2004

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

(Farms Sorted By Ra	te of Return o	n Assets -	MKC)	
	Arra Of			
	Avg. Of	T 050	TT' 1- 0.E.0	
	All Farms	Low 25%	High 25%	
Number of farms	31	7	8	
Net operating profit	418,389	168,689	835,595	
Breeding Livestock				
Ending inventory	941,033	674,014	1,207,344	
Capital sales	23,391	4,816		
Beginning inventory	893,819		1,142,619	
Capital purchases	52,368	75,028		
<del>-</del>				
Depreciation, capital adjust.	18,237	-4,632	-9,484	
Machinery and Equipment				
Ending inventory	366,003	301,250	511,684	
Capital sales	7,462	6,347		
Beginning inventory	330,659	304,986	438,766	
Capital purchases	167,335	88,368		
Depreciation, capital adjust.	-124,530	-85,757		
D 1111				
Buildings and Improvements	247 050	266 507	E00 6E1	
Ending inventory	347,059 99	266,507	589,651	
Capital sales		439		
Beginning inventory	360,215	280,534	•	
Capital purchases	45,403	26,810		
Depreciation, capital adjust.	-58,460	-40,397	-93,695	
Other Capital Assets				
Ending inventory	108,295	50,313	225,309	
Capital sales	6,878	2,386		
Beginning inventory	85,092	48,328		
Capital purchases	29,471	5,127		
Depreciation, capital adjust.	610	-756		
Depreciation, capital adjust.	010	730	)) <del>1</del>	
Total depreciation, capital adj.	-164,143	-131,542	-306,590	
Net farm income	254,246	37,147	529,006	

Table 49 Profitability Measures
Michigan Dairy, 250 Plus Cows, 2004
(Farms Sorted By Rate of Return on Assets - Mkt)

OI RECUIII	OII TIDDCCD	THEC)	
All Farms	Low 25%	High 25%	
31	7	8	
254,246	37,147	529,006	
181,594	-6,188	400,294	
9.2 %			
13.9 %	-7.9 %	20.8 %	
15.5 %	1.8 %	23.8 %	
59.1 %	53.1 %	61.5 %	
72,652	43,335		
	73,784	62,928	
88,281			
240,755			
1,550,325	1,116,122	2,131,563	
λα Of			
_	T 0747 25%	High 25%	
AII PAIMS	HOW 25%	mign 25%	
31	7	8	
t)			
356,523	107,424	704,256	
213,346	-4,152	490,987	
40.4 %	32.9 %	43.7 %	
143,177			
74,790			
88,281			
•			
2.386.285	1.859.601	3,554,486	
1,550,325			
	Avg. Of All Farms  31  254,246 181,594 9.2 % 13.9 % 15.5 % 59.1 %  72,652 74,790 88,281 240,755 2,623,704 165,965 1,197,264 1,550,325  Avg. Of All Farms  31  2t)  356,523 213,346 8.9 % 11.2 % 22.1 % 40.4 %  143,177 74,790 88,281 343,031 3,837,069 268,242	Avg. Of All Farms Low 25%  31 7  254,246 37,147 181,594 -6,188 9.2 % 1.0 % 13.9 % -7.9 % 15.5 % 1.8 % 59.1 % 53.1 %  72,652 43,335 74,790 73,784 88,281 90,610 240,755 20,322 2,623,704 2,100,189 165,965 -53,463 1,197,264 679,589 1,550,325 1,116,122  Avg. Of All Farms Low 25%  31 7  et)  356,523 107,424 213,346 -4,152 8.9 % 2.7 % 11.2 % 0.9 % 22.1 % 8.1 % 40.4 % 32.9 %  143,177 111,576 74,790 73,784 88,281 90,610 343,031 30,599 3,837,069 3,388,012 268,242 16,814	All Farms Low 25% High 25%  31 7 8  254,246 37,147 529,006 181,594 -6,188 400,294 9.2 % 1.0 % 14.7 % 13.9 % -7.9 % 20.8 % 15.5 % 1.8 % 23.8 % 59.1 % 53.1 % 61.5 %  72,652 43,335 128,712 74,790 73,784 62,928 88,281 90,610 83,579 240,755 20,322 508,354 2,623,704 2,100,189 3,467,213 165,965 -53,463 445,426 1,197,264 679,589 2,145,198 1,550,325 1,116,122 2,131,563  Avg. Of All Farms Low 25% High 25%  31 7 8  2t)  356,523 107,424 704,256 213,346 -4,152 490,987 8.9 % 2,7 % 14.0 % 11.2 % 0.9 % 17.5 % 22.1 % 8.1 % 32.1 % 40.4 % 32.9 % 43.7 %  143,177 111,576 213,269 74,790 73,784 62,928 88,281 90,610 83,579 343,031 90,599 683,604 3,837,069 3,388,012 4,876,500 268,242 16,814 620,676

Table 50

Liquidity Measures

Michigan Dairy, 250 Plus Cows, 2004

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

	o or moodem	011 1188008 .	11110 /	
	Avg. Of All Farms	Low 25%	High 25%	
Number of farms	31	7	8	
Liquidity (cash)				
Net cash farm income	329,366	176,421	618,778	
Net nonfarm income	13,978	•	· ·	
Family living and taxes	-	58,894		
Principal due on long term debt	52,007	36,994	46,333	
Cash available for interm. debt	209,730	84,051	489,563	
Average intermediate debt	377,960	346,732	397,282	
Years to turnover interm. debt	1.8			
Expense as a % of income	83 %			
Interest as a % of income	4 %	5 %	2 %	
Liquidity (accrual)				
	1,983,327			
Total accrual operating expense				
Net accrual operating income	418,389	•	· ·	
Net nonfarm income	13,978		•	
Family living and taxes		58,894		
Principal due on long term debt				
Available for intermediate debt	•	76,320	•	
Average intermediate debt	377,960	346,732	397,282	
Years to turnover interm. debt	1.3			
Expense as a % of income	79 %			
Interest as a % of income	4 %	5 %	2 %	

Table 51

Balance Sheet at Cost Values

Michigan Dairy, 250 Plus Cows, 2004

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

	Avg. 0		T . 0	T.0	** 1- 01	- 0
Number of farms	All Far		Low 2	58 7	High 2	o % 3
Number of Farms	5	±.		,	•	5
	Beginning	Ending	Beginning	Ending	Beginning	Ending
Assets						
Current Farm Assets						
Cash and checking balance	39,052					
Prepaid expenses & supplies	49,820					
Growing crops Accounts receivable	16,967					
Hedging accounts	67,115 937					106,127 125
Crops held for sale or feed	295,015					
Crops under government loan	964					828
Market livestock held for sale	19,633					
Other current assets	406					0
Total current farm assets	489,908					
Intermediate Farm Assets						
Breeding livestock	893,819				1,142,619	
Machinery and equipment	330,659				438,766	
Titled vehicles	0					0
Other intermediate assets Total intermediate farm assets	80,768		45,148			
Total intermediate larm assets	1,305,240	1,409,408	950,500	1,022,397	1,712,825	1,940,007
Long Term Farm Assets						
Farm land	379,238	386,442	378,621	381,673	347,491	334,203
Buildings and improvements	360,215					
Other long-term assets	4,325	5,923	3,180	3,180	3,150	3,649
Total long-term farm assets	743,777	739,425	662,334	651,359	999,452	927,503
Total Farm Assets	2,538,931	2,708,477	2,071,144	2,129,235	3,311,422	3,623,004
Total Nonfarm Assets	108,226					
Total Assets	2,647,157	2,848,224	2,136,873	2,195,854	3,564,845	3,942,409
Liabilities						
Current Farm Liabilities						
Accrued interest	761	1,453	493	512	1,363	2,393
Accounts payable	65,125				•	
Current notes	157,216					118,260
Government crop loans	964			0	0	828
Principal due on term debt	130,579	158,241	107,634	169,079	149,388	152,810
Total current farm liabilities	354,645	309,460	333,038	298,758	318,527	275,854
Total intermediate farm liabs	282,036					
Total long term farm liabilities	804,385					
Total farm liabilities	1,441,066	1,411,814	1,383,854	1,457,347	1,406,124	1,237,906
Total nonfarm liabilities	4 805	6,003	0	0	337	337
Total liabilities				1.457.347	1,406,461	
10001 11001110100	1,110,071	1,11,,010	1,303,031	1,13,,31,	1,100,101	1,230,213
Net worth (farm and nonfarm)	1,201,286	1,430,408	753,019	738,507	2,158,384	2,704,166
Net worth change		229,122		-14,512		545,782
Ratio Analysis						
Current farm liabilities / assets	72 %	55 %	74 %	66 %	53 %	37 %
Curr. & interm farm liab. / assets	35 %	31 %	43 %	38 %	27 %	20 %
Long term farm liab. / assets	108 %	108 %	117 %	137 %	77 %	75 %
Total debt to asset ratio	55 %	50 %	65 %	66 %	39 %	31 %

Table 52

Balance Sheet at Market Values

Michigan Dairy, 250 Plus Cows, 2004

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

	Avg. 0	f				
	All Far		Low 2	5%	High 25	26
Number of farms		1		7	-	3
	Beginning	Ending	Beginning	Ending	Beginning	Ending
Assets						
Current Farm Assets						
Cash and checking balance	39,052		20,458			•
Prepaid expenses & supplies	49,820		24,830			
Growing crops Accounts receivable	16,967 67,115		7,743 92,114			
Hedging accounts	937					125
Crops held for sale or feed	295,015					400,856
Crops under government loan	964					828
Market livestock held for sale	19,633			34,884		10,945
Other current assets	406					0
Total current farm assets	489,908	559,645	450,241	455,479	599,145	754,814
Intermediate Farm Assets						
Breeding livestock	912,869	976,057	608,434	674 100	1,176,938	1 245 175
Machinery and equipment	562,009					
Titled vehicles	2,226					
Other intermediate assets	81,721			47,133	- ,	
Total intermediate farm assets					1,871,349	
Long Term Farm Assets						
Farm land					1,361,760	
Buildings and improvements	543,284					
Other long-term assets	5,879					
Total long-term farm assets Total Farm Assets					2,162,589 4,633,084	
TOTAL FAIM ASSETS	3,701,117	3,9/3,021	3,323,646	3,452,379	4,033,004	5,119,917
Total Nonfarm Assets	190,931	230,084	120,385	121,333	328,199	369,519
Total Assets	3,892,047	4,203,106	3,444,031	3,573,712	4,961,282	5,489,436
Liabilities						
Current Farm Liabilities						
Accrued interest	761	1,453	493	512	1,363	2,393
Accounts payable	65,125					
Current notes	157,216					
Government crop loans	964	1,178	0	0	0	828
Principal due on term debt	130,579	158,241	107,634	169,079	149,388	152,810
Total current farm liabilities	354,645	309,460	333,038	298,758	318,527	275,854
Total intermediate farm liabs	282,036	202 141	272 102	263,573	214 049	270 104
Total long term farm liabilities	804,385					
Total farm liabilities					1,406,124	
Total laim liabilities	1,111,000	1,111,011	1,303,031	1,13,,31,	1,100,121	1,237,500
Total nonfarm liabilities	4,805	6,003	0	0	337	337
Total liabs excluding deferreds	1,445,871	1,417,816	1,383,854	1,457,347	1,406,461	1,238,243
Total deferred liabilities	24,301	24,386	107,618	107,993	0	0
Total liabilities					1,406,461	
Retained earnings		1,430,408			2,158,384	
Market valuation equity					1,396,438	
Net worth (farm and nonfarm)					3,554,821	
Net worth excluding deferreds	2,446,176		2,060,177		3,554,821	
Net worth change		339,029		55,813		696,371
Ratio Analysis Current farm liabilities / assets	72 %	EE @	74 %	66 %	53 %	37 %
Curr. & interm farm liab. / assets	31 %	55 % 27 %	74 % 35 %	31 %		19 %
Long term farm liab. / assets	49 %	47 %	48 %	55 %		32 %
Total debt to asset ratio	38 %	34 %	43 %	44 %		23 %
Debt to assets excl deferreds	37 %		40 %	41 %		23 %

Table 53

Statement Of Cash Flows

Michigan Dairy, 250 Plus Cows, 2004

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

,			- /	
	Avg. Of			
	All Farms	Low 25%	High 25%	
Number of farms	31	7	8	
Beginning cash (farm & nonfarm)	39,052	20,458	67,943	
Cash From Operating Activities				
Gross cash farm income	1,930,787	1,510,058	2,591,952	
Net nonfarm income	13,978	3,518	33,925	
Total cash farm expense	-1,601,421	-1,333,637	-1,973,174	
Apparent family living expense	-74,683	-57,586	-91,199	
Income and social security tax	-6,923	-1,308	-25,608	
Cash from operations	261,737	121,045	535,896	
Cash From Investing Activities				
Sale of breeding livestock	23,391	4,816	24,589	
Sale of machinery & equipment	7,462	6,347	5,037	
Sale of titled vehicles	-	-	_	
Sale of farm land	26,207	_	93,011	
Sale of farm buildings	99	439		
Sale of other farm assets	6,878	2,386	5,277	
Sale of nonfarm assets	3,069	871	4,183	
Purchase of breeding livestock	-52,368	-75,028	-98,798	
Purchase of machinery & equip.	-167,335	-88,368	-280,372	
Purchase of titled vehicles	_	_	_	
Purchase of farm land	-10,634	-3,052	_	
Purchase of farm buildings	-45,403	-26,810		
Purchase of other farm assets	-29,471	-5,127		
Purchase of nonfarm assets	-12,494	-4,066		
Cash from investing activities	-250,599	-187,591	-414,790	
Cash From Financing Activities				
Money borrowed	301,085	334,784	243,095	
Cash gifts and inheritances	4,509	7,826		
Principal payments	-312,882	-264,265	-385,289	
Dividends paid	_	_	_	
Gifts given	-6,053	-1,804		
Cash from financing activities	-13,341	76,542	-156,232	
Net change in cash balance	-2,203	9,995	-35,126	
Ending cash (farm & nonfarm)	36,849	30,453	32,817	

Table 54 Financial Standards Measures
Michigan Dairy, 250 Plus Cows, 2004

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

(Farills Softed by Rat	Le OI Recuill O	n Assets - M	ikt)	
	Avg. Of All Farms	Low 25%	High 25%	
Number of farms	31	7	8	
Liquidity				
Current ratio	1.81	1.52	2.74	
Working capital	250,184	156,721	478,960	
Solvency (market)				
Farm debt to asset ratio	36 %	45 %	24 %	
Farm equity to asset ratio	64 %	55 %	76 %	
Farm debt to equity ratio	57 %	83 %	32 %	
Profitability (cost)				
Rate of return on farm assets	9.2 %	1.0 %	14.7 %	
Rate of return on farm equity	13.9 %	-7.9 %		
Operating profit margin	15.5 %	1.8 %		
Net farm income	254,246	37,147	529,006	
Repayment Capacity				
Term debt coverage ratio	210 %	103 %	359 %	
Capital replacement margin	220,181	5,679	603,326	
Efficiency				
Asset turnover rate (cost)	59.1 %	53.1 %	61.5 %	
Operating expense ratio	75.1 %	84.0 %	67.0 %	
Depreciation expense ratio	8.3 %	8.7 %	11.2 %	
Interest expense ratio	3.8 %	4.9 %	2.3 %	
Net farm income ratio	12.8 %	2.5 %	19.4 %	

Table 55 Operator and Labor Information

Michigan Dairy, 250 Plus Cows, 2004

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

(Parillo Dorced by Nac	e or kecurii (	JII ASSECS	PIRC)	
	Avg. Of			
	All Farms	Low 25%	High 25%	
Number of farms	31	7	8	
Operator Information				
Average number of operators	1.8	1.7	1.8	
Average age of operators	53.0	54.4		
Average number of years farming	30.3	33.7		
Average number or years ranking	50.5	33.7	20.0	
Results Per Operator				
Working capital	138,495	91,421	273,692	
Total assets (market)	2,326,719	2,084,666		
Total liabilities	798,362	913,115		
Net worth (market)	1,528,358			
Net worth excl deferred liabs	1,541,857	1,234,546	2,429,253	
Gross farm income	1,097,913	882,727	1,557,465	
Total farm expense	957,169	861,058	1,255,176	
Net farm income	140,743	21,669	302,289	
Net farm income	140,743	21,009	302,209	
Net nonfarm income	7,738	2,052	19,386	
Family living & tax withdrawals	45,175	34,355	66,747	
Total acres owned	364.7	472.0	494.2	
Total crop acres	764.3	739.0	878.1	
Crop acres owned	401.7	383.7	584.2	
Crop acres cash rented	362.7	355.4	293.9	
Crop acres share rented	-	-	_	
Total pasture acres	5.6	1.3	_	
Labor Analysis				
Number of farms	31	7	8	
Total unpaid labor hours	5,165	5,287	4,357	
Total hired labor hours	24,386	17,279		
Total labor hours per farm	29,551	22,566		
Unpaid hours per operator	2,859	3,084		
Value of farm production / hour	52.46	49.46	62.48	
Net farm income / unpaid hour	49.23	7.03	121.43	
Average hourly hired labor wage	12.63	12.19	14.60	
Partnerships & LLCs				
Number of farms	16	1	5	
Number of operators	2.1		2.0	
Owner withdrawals per farm		_	2.0	
	_	_	_	
Withdrawals per operator	-	_	_	

Table 56 Financial Summary

Michigan Dairy, 250 Plus Cows, 2004

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

(Farilis Sorted	By Rate	or keturn	on Assets
	Avg. Of		
	All Farms	Low 25%	High 25%
Number of farms	31	7	8
Income Statement			
Gross cash farm income	1,930,787	1,510,058	2,591,952
Total cash farm expense	1,601,421	1,333,637	
Net cash farm income	329,366	176,421	
Inventory change	89,023		
Depreciation and capital adjust	-164,143		
Net farm income	254,246	37,147	
Net laim income	231,210	377117	323,000
Profitability (cost)			
Labor and management earnings	181,594	-6,188	400,294
Rate of return on assets	9.2 %	1.0 %	
	13.9 %		
Rate of return on equity			
Operating profit margin	15.5 %		
Asset turnover rate	59.1 %	53.1 %	61.5 %
D 611 - 1-1311 (11-)			
Profitability (market)	010 046	4 150	400 005
Labor and management earnings	213,346	-4,152	
Rate of return on assets	8.9 %	2.7 %	
Rate of return on equity	11.2 %		
Operating profit margin	22.1 %		
Asset turnover rate	40.4 %	32.9 %	43.7 %
Liquidity			
Ending current ratio	1.81	1.52	
Ending working capital	250,184	156,721	478,960
End working capital to gross inc	13.0 %	10.4 %	18.5 %
Term debt coverage ratio	209.9 %	103.2 %	359.4 %
Expense as a percent of income	78.9 %	88.9 %	69.3 %
Interest as a percent of income	3.8 %	4.9 %	2.3 %
Solvency (cost)			
Number of farms	31	7	8
Ending farm assets	2,708,477	2,129,235	3,623,004
Ending farm liabilities	1,411,814	1,457,347	
Ending total assets	2,848,224		
Ending total liabilities	1,417,816		
Ending net worth	1,430,408		
Net worth change	229,122		
Ending farm debt to asset ratio	52 %		
Beg total debt to asset ratio	55 %	65 %	
End total debt to asset ratio	50 %	66 %	31 %
Solvency (market)	50 °	00 %	21 %
Number of farms	31	7	8
Ending farm assets		•	
<u> </u>		3,452,379	
Ending farm liabilities	1,436,199	1,565,340	
Ending total assets	4,203,106	3,573,712	
Ending total liabilities	1,442,202	1,565,340	
Ending net worth	2,760,904	2,008,372	4,251,193
Net worth change	339,029	55,813	696,371
Ending farm debt to asset ratio	36 %	45 %	24 %
Beg total debt to asset ratio	38 %	43 %	28 %
End total debt to asset ratio	34 %	44 %	23 %
Nonfarm Information			
Net nonfarm income	13,978	3,518	33,925
Crop Acres			
Total acres owned	659	809	865
Total crop acres	1,381	1,267	1,537
Total crop acres owned	726	658	1,022
Total crop acres cash rented	655	609	514
Total crop acres share rented	_	_	_